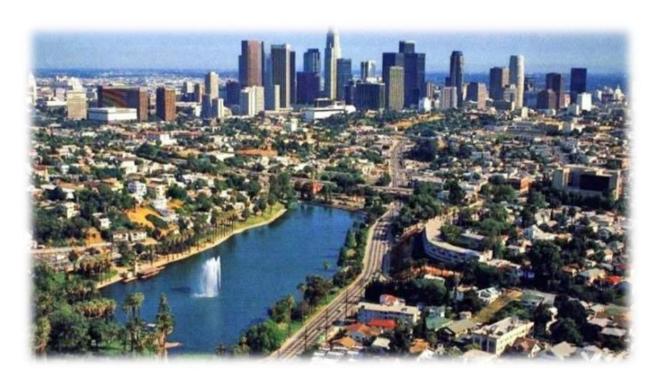
# **Los Angeles County MHSA Innovation Program**



# **Annual Report** December 2014









"To Enrich Lives through Effective and Caring Service"

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# Los Angeles County MHSA Innovation Program Annual Report: Executive Summary



LACDMH designed the first MHSA Innovation (INN) Program to identify new and promising practices that can be applied to the integration of mental health, physical health and substance use/abuse services for uninsured, homeless and underrepresented populations. The INN program included four models of care: the Integrated Clinic Model (ICM), the Integrated Mobile Health Team (IMHT), the Community-Designed Integrated Service Management Model (ISM), and the Integrated Peer-Run Model. The findings reported are from an evaluation effort that was carried out between May 2012 and December 2014. The Peer-Run Model has an additional year to offer services, so their health outcomes will be presented in a future report.

The IMHT model was designed as a client-centered, housing-first approach that used harm reduction strategies across all modalities of mental health, physical health, and substance abuse treatment. IMHT particularly focused on individuals who are homeless or recently moved to Permanent Supportive Housing (PSH) and had additional vulnerabilities such as age, years homeless, co-occurring substance abuse disorders, and/or physical health conditions.

The ISM model provided a holistic model of care whose components were defined by specific under-represented ethnic populations (UREP) and promoted collaboration and community based partnerships to integrate health, mental health and substance abuse services together with alternative, or non-traditional services to support recovery. The ISM model was divided into five ethnic models: African Immigrant/African American, American Indian/Alaskan Native, Asian/Pacific Islander, Eastern European/Middle Eastern, and Latino.

The ICM model was designed to improve access to quality culturally competent care for individuals with physical health, mental health, and co-occurring substance abuse diagnoses by integrating care within both mental health and primary care provider sites.

To enroll in any of the models, clients needed to meet Medi-Cal medical necessity criteria for specialty mental health services, and demonstrate a general medical condition requiring ongoing care and/or substance abuse problems. There were additional enrollment criteria that varied by model.

#### Methods

The evaluation team, in consultation with LACDMH, implemented a variety of qualitative and quantitative evaluation techniques to best address the needs of LACDMH and the INN programs. See the Measures sidebar for more information. The Innovation Health Outcomes Management System (iHOMS) was developed to track client health. It is a secure web-based system that allows clients and clinicians to complete assessments electronically, and streamlines the data collection and review process.

Paired samples t-tests and chi-square tests were used to examine the *statistical significance* of changes in scores on the measures over time. These procedures provide evidence that changes were due to the benefits of receiving INN services and not chance variation.

Additional analytical techniques were used to determine the magnitude of the changes, dubbed *clinical meaningfulness*. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

In addition to measuring client outcomes and program costs, several qualitative evaluation techniques were implemented to help describe how programs were successful and to develop promising practices for program implementation. These techniques included the Integrated Treatment Tool and a social network analysis which were used across all models. To capture the cultural competency and efficacy of the non-traditional services offered by the ISM providers, a cultural competency study was conducted along with focus groups related to the use of non-traditional services.

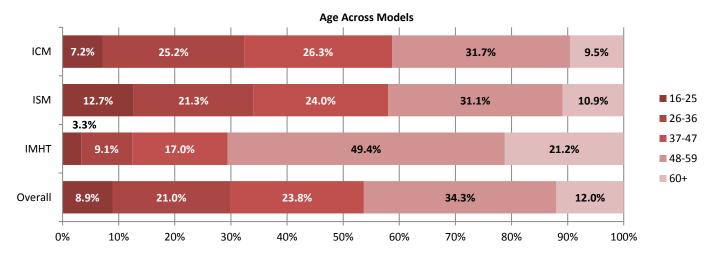
# **KEY EVALUATION FINDINGS**

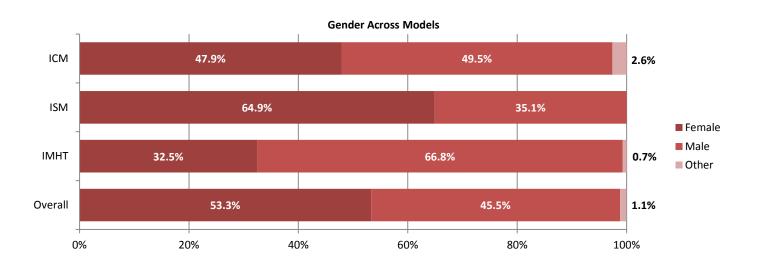
Findings are briefly summarized below. A more comprehensive presentation of evaluation findings is provided in the main body and appendices of the annual report. Model level executive summaries can be found in the <a href="IMHT">IMHT</a>, <a href="ISM">ISM</a> and <a href="ICM">ICM</a> sections of the report.

#### **Program enrollment and client characteristics**

During the fiscal years 2011/2012, 2012/2013, and 2013/2014, INN programs enrolled 3,708 clients into one of the three models of care. Overall, INN clients were most likely to be between the ages of 48 and 59 (34.3%) or 37 and 47 (23.8%), and were most likely to be Latino (35.3%), with African/African Americans making up the next largest group (25.6%), followed by clients identifying as White (16.0%). There were slightly more female clients (53.3%) than male (45.5%), with 1.1% identifying themselves as transgender or transsexual (Other).

Given the differences in the goals and implementation protocols for each of the INN models, the populations served by each model were distinct. Clients in the IMHT model were most likely to be African American or African Immigrants, and were primarily male. Clients in the ISM model were mostly female and were more likely to identify as Latino, or African American or African Immigrant. ICM clients were most likely to be Latino, and were evenly split between male and female clients.





Race/Ethnicity Across Models	Overall	IMHT	ISM	ICM
White	16.0%	34.4%	0.0%	27.6%
African/African American	25.6%	44.8%	23.8%	19.5%
Latino	35.3%	9.8%	36.1%	45.0%
American Indian/Alaska Native	4.2%	2.1%	8.0%	0.4%
Asian and Pacific Islander	8.2%	2.1%	15.0%	2.3%
Eastern European and Middle Eastern	7.8%	0.0%	15.8%	0.6%
Other	0.8%	1.0%	0.9%	2.0%
Mixed Race/Multiple Ethnicities	1.8%	5.3%	0.4%	1.9%
Unknown/Not Reported	0.4%	0.5%	0.0%	0.6%

#### **Overall Outcomes**

Overall, scores on the baseline measures of mental and physical health were similar for clients in the ISM and ICM programs; IMR (3.27, 3.31, respectively), MORS (4.75, 4.77, respectively), and PROMIS Mental Health (3.92, 4.05, respectively) and PROMIS Physical Health (3.29, 3.24, respectively). Compared to clients in the ISM and ICM models, clients in the IMHT model were relatively more impaired when they entered the program, as can be seen from their scores on the baseline measures; IMR (3.57), MORS (3.36), and PROMIS Mental Health (3.90) and PROMIS Physical Health (3.40).

IMHT clients were more likely than clients from the ISM or ICM models to be homeless, or to have been incarcerated, hospitalized, or seen at the emergency room in the six months prior to enrollment. Clients in the IMHT model were more likely to have consumed alcohol (65.9%) or used drugs (46.8%) than clients from the ISM model (44.3% drank alcohol, 11.9% used drugs) or the ICM model (40.9% drank alcohol, 14.4% used drugs). Differences in baseline health and quality of life should be considered while reviewing the data, as clients with fewer resources or a longer history of substance abuse and health concerns may require more time or resources to make clinically meaningful improvements in their health.

Client Measure	Description
PROMIS Global Health	Provides a broad rating of mental health, physical health, and social well-being.
Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)	Measures specific mental health symptoms - compulsive behavior, psychosis, memory disturbance and depression - and positive recovery factors, which can help identify client strengths.
PROMIS-Derived Substance Use	Assesses the negative consequences of substance use for clients who reported using alcohol or off-label prescription or illegal drugs.
Physical Health and Behaviors	Allows clients to report on health behaviors, substance use, incarcerations and service use, medical history, and potential barriers to service.
Internalized Stigma of Mental Illness (ISMI)	Assesses subjective experience with mental illness stigma including, Alienation, Perceived Discrimination, Social Withdrawal, Stereotype Endorsement and Stigma Resistance.
Clinician Measure	Description
Milestones of Recovery Scale (MORS)	Assesses clients' current level of recovery considering three factors; their level of risk, their level of engagement within the mental health system and their level of skills and supports.
Illness, Management and Recovery Scale (IMR)	The IMR has 15 items, each addressing a different aspect of illness management and recovery.
Physical Health Indicators (PHI)	Clients' Diabetes, Obesity, Cardiopulmonary disease, Tuberculosis, Asthma, Emphysema, and STD risk will be identified through appropriate screening and testing.

the measures, lower scores represent less impairment, or a more positive outcome with the exception of the MORS, on which

higher scores indicated a greater level of recovery.

#### **Model Level Outcome Goals**

The goal of INN was to identify client outreach and engagement strategies and integrative approaches that most effectively achieve the following overall client outcome goals.

- Successful integration of physical health, mental health, and substance abuse services
- Consumer and provider satisfaction with services
- Decreased use of emergency services for physical health, mental health, and substance abuse
- Improved physical health status
- Improved mental health status
- Reduced substance use and negative consequences from substance use
- Cost-effectiveness

Additionally, there were the following model-specific outcome goals.

IMHT	ISM	ICM
Reduced homelessness		Reduced homelessness
Reduced incarcerations		
Increased establishment of benefits for which the client is eligible		Increased establishment of benefits for which the client is eligible
Increased number of clients who obtain employment, attended school, or participated in volunteer activities	Increased number of clients who obtain employment, attended school, or participated in volunteer activities	
	Decreased stigma Increased engagement and retention of clients from the UREP group in formal and non-traditional services	Decreased stigma

There were many significant improvements in client health, and many clients were successfully discharged from each of the models. Specifically, there were significant reductions in scores on the IMR for clients in each model. More than half of clients across models had a clinically meaningful improvement in Overall IMR scores. This indicates that clients were better able to manage their mental health and had made progress towards their recovery. There were also significant increases in scores on the MORS for clients in each model, indicating that clients were in more advanced stages of recovery after participating in INN. Scores on the PROMIS Global Health scale were also significantly reduced for clients from each of the models, indicating less impairment in functioning due to their physical and mental health. More than 30.0% of clients had a clinically meaningful improvement in reported Mental and Physical Health subscale scores across models. These universal improvements indicate that the models of care were effective for their specific target populations.

In addition to quantitative client outcome measures, site visits were conducted during year 1 using the Integrated Treatment Tool (ITT) to review program implementation practices. The ITT provided a framework to evaluate how primary and behavioral healthcare services could be integrated to create a Person-Centered Healthcare Home Model. Follow-up surveys to assess the most significant domains that emerged from the site visits were conducted 1 to 1½ years later. Through investigating program implementation, several strengths across all models were discovered such as organizations largely embraced an integrated philosophy and programs were observed to have a patient-centered approach. There were also challenges that were common across all models such as integrated electronic health records and integrated service planning. While differences between models were to be expected by design, there was also variation between programs within models. ICM programs shared a co-location feature, but had different approaches to establishing care processes between disciplines within those locations. ISM programs employed non-traditional providers, but differed in how they used them for outreach and/or treatment. IMHT program implementation stood out as being most uniform based on its leveraging well-defined existing best practices and processes (i.e. housing first and assertive community treatment, both of which are evidence based practices).

#### **Model Specific Findings**

Time points for analyses were selected by LACDMH and the evaluation team to best demonstrate the efficacy of the programs. The IMHT model was the first model to begin enrolling clients, and therefore had data available over the greatest time period. As a result, outcome data for the IMHT model were analyzed from baseline to twelve months and from twelve months to twenty-four months. The ICM had few clients who had participated in INN for twenty-four months. Analyses for ICM included a matched sample of baseline and twelve months and baseline and eighteen months to show results over the maximum period of time. ISM providers had the longest client engagement period, and as a result had few clients who had been in the program for over twelve months. Analyses for ISM include a matched sample of baseline to twelve months.

In addition to the global improvements in client health, the unique goals and implementation of each model were related to model-specific improvements. For example, there was a significant reduction in ISMI scores from baseline to twelve months for ISM clients, but not for ICM or IMHT clients (IMHT clients had a significant reduction from twelve to twenty-four months). This indicates that ISM clients were significantly less likely to feel stigmatized based on their mental health diagnosis twelve months after enrollment. This decrease in stigma may be related to the extensive, culturally competent community outreach efforts conducted by the ISM providers. While IMHT providers also engaged in extensive, field-based outreach efforts, it may have taken IMHT clients longer to experience a reduction in stigma due to the greater impairment at enrollment and the transition into Permanent Supportive Housing.

In order to better understand the targeted outreach and engagement techniques employed by ISM programs to reduce stigma, focus groups were conducted with ISM providers for two different sub-evaluations. These included

		IMHT		ISI	VI		ICM	
Outcome	Baseline Risk Rating*	Change 1 vs. 5	Change 5 vs. 9	Baseline Risk Rating*	Change 1 vs. 5	Baseline Risk Rating*	Change 1 vs. 5	Change 1 vs.7
Overall IMR	High	<b>T</b>	<b>\</b>	Medium	<b>\Psi</b>	Medium	<b>\</b>	<b>\</b>
MORS	High	<b>↑</b>	<b>^</b>	Medium	<b>↑</b>	Medium	<b>^</b>	<b>1</b>
PROMIS Mental Health	Medium	<b>4</b>	$\downarrow$	Medium	<b>4</b>	Medium	<b>\</b>	<b>4</b>
PROMIS Physical Health	High	<b>4</b>	$\rightarrow$	Medium	<b>4</b>	Medium	<b>\Psi</b>	$\rightarrow$
вмі	Medium	<b>1</b>	$\rightarrow$	High	<b>1</b>	High	$\rightarrow$	$\rightarrow$
Blood Pressure	High	<b>1</b>	<b>4</b>	Medium	$\rightarrow$	Medium	<b>\Psi</b>	<b>\</b>
Diabetes	Medium	<b>1</b>	<b>1</b>	High	<b>1</b>	High	<b>\</b>	<b>1</b>
Cholesterol	Medium	<b>1</b>	<b>↑</b>	High	$\rightarrow$	High	<b>1</b>	<b>\</b>
PROMIS-Derived Substance Use	High	<b>\</b>	<b>\</b>	Low	<b>\</b>	Low	$\rightarrow$	$\rightarrow$
IMR Substance Use	High	<b>V</b>	$\rightarrow$	Low	<b>V</b>	Low	<b>V</b>	<b>\</b>
Client Reported Alcohol Use	High	<b>\</b>	$\rightarrow$	Medium	<b>\</b>	Medium	$\rightarrow$	$\rightarrow$
Client Reported Substance Use	High	$\rightarrow$	$\rightarrow$	Low	<b>4</b>	Low	$\rightarrow$	$\rightarrow$
Homelessness	High	<b>\</b>	$\rightarrow$	Low	<b>\</b>	Medium	<b>\</b>	<b>\</b>
ER Visits	High	<b>\</b>	$\rightarrow$	Low	$\rightarrow$	Medium	<b>\</b>	<b>\</b>
Psychiatric Hospitalizations	High	<b>\</b>	$\rightarrow$	Low	$\rightarrow$	Low	<b>\</b>	<b>\</b>
Incarcerations	Medium	$\rightarrow$	<b>4</b>	Low	<b>\</b>	Low	$\rightarrow$	$\rightarrow$
Stigma (ISMI)	Medium	$\rightarrow$	<b>\</b>	Medium	<b>V</b>	Medium	$\rightarrow$	$\rightarrow$

<sup>\*</sup>Baseline Risk Rating indicates whether clients within the model had a relatively High, Medium or Low level of impairment based on the measure when compared to clients from the other two models.

Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

the Culturally-Responsive Treatment Study (conducted during the first year of implementation), and the Non-Traditional Services Focus Group (conducted near the end of program implementation). Preliminary findings from content analyses revealed many promising practices for outreach and service delivery to UREP communities. Specifically, ISM providers reported that the use of non-traditional services, hiring staff who match the culture and language of clients, and reducing the use of formal mental health terminology (for example, talking about stress rather than anxiety) facilitated engagement among difficult to enroll groups and improved clients' comfort with formal mental health services, which in turn enhanced client recovery outcomes.

Consistent with the goals of the model, there was a significant reduction in homelessness for clients served by IMHT programs. Additionally, there was a significant reduction in impairment and negative consequences associated with alcohol or substance use from baseline to twelve months, and from twelve to twenty-four months observed on the client reported PROMIS-Derived Substance Use scale, and from baseline to twelve months on the IMR Substance Use scale. Clients reported a significant reduction in alcohol use from baseline to twelve months. IMHT clients also had reductions in emergency service use, including significant reductions in ER visits and psychiatric hospitalizations from baseline to twelve months and incarcerations from twelve to twenty-four months. While there were significant reductions in some of these outcomes for the other models, the effect size was the largest for IMHT clients.

Clients in the ICM model showed the greatest improvement in physical health compared to clients in IMHT and ISM programs. There was a significant reduction in scores on the PROMIS Physical Health scale from baseline to twelve and eighteen months. There was also a significant reduction in blood pressure from baseline to twelve and eighteen months, as well as a significant improvement in diabetes markers from baseline to twelve months, and in cholesterol from baseline to eighteen months. The reductions in physical health indicators were particularly meaningful, as many programs and the IMHT model overall had significant increases in these over the evaluation period. Additionally, almost half of ICM clients maintained healthy cholesterol, diabetes and blood pressure levels or had a clinically meaningful improvement in risk category within a year of engaging in services.

### **CONCLUSIONS**

Overall, the IMHT, ISM and ICM models of care were successful in accomplishing the outcome goals of the Innovation program. While each model's goals and target populations were different, clients in all three INN models showed improved physical and mental health, reduced substance use, and improved quality of life. Across all of the models, programs were observed to have a patient-centered approach, which was one of the key goals of each model. In addition, models showed some success at achieving their model-specific goals, including a significant reduction in homelessness for IMHT and ICM clients, and a significant decrease in mental illness stigma among ISM clients. The INN program demonstrated key promising practices for outreach and engagement, culturally responsive treatment, and the integration of physical health, mental health, and substance abuse. The promising practices identified and lessons learned from both the successes of the models and the challenges that individual providers faced can be applied system-wide to best facilitate future program success.

Please see the full report for more information.









# **MHSA Innovation Program**

The Los Angeles County Department of Mental Health (LACDMH) is the largest mental health service system in the nation. Los Angeles County is one of the geographically largest and most diverse regions in the United States. LACDMH serves over one-quarter of a million Los Angeles County residents each year. LACDMH provides a diverse spectrum of mental health services to people of all ages, including mental health assessments, crisis intervention, case management, and medication support in both residential and outpatient settings, and is made up of a diverse workforce of psychiatrists, psychologists, social workers, medical doctors, clergy, and trained mental health consumers.

In 2004, California voters passed Proposition 63, which became the Mental Health Services Act (MHSA). MHSA aims to improve and transform the delivery of mental health services and treatment across the state of California. Programs developed under the umbrella of LACDMH have an overarching goal to ensure the availability of services to children, youth, adults, and older adults most challenged by severe and persistent mental illness. Essential to this goal is comprehensive collaboration with consumers, family members, parents, providers, other community departments and community groups to ensure that each program developed is committed to: promoting recovery for all who struggle with mental or other illness, achieving positive outcomes for all who receive mental health services, and delivering services in ways that are culturally appropriate and honor differences within communities, and that address disparities in access to services, particularly disparities affecting ethnic, cultural and underserved communities.

The LACDMH designed the current MHSA Innovation (INN) Program to identify new and promising practices that can be applied to the integration of mental health, physical health and substance use/abuse services for uninsured, homeless and underrepresented populations. By implementing novel approaches to integrated care that are specifically designed to meet the needs of each program's target population, programs extend their reach into the community and provide services to clients who may be new to the healthcare system. Through collaboration with other health and wellness providers, and ongoing reviews of program data, programs are expected to implement

continuous program improvement and develop promising practices for serving their diverse populations.

The goal of INN is to learn the most effective client outreach and engagement strategies as well as integrative approaches that will improve client health outcomes, increase consumer satisfaction, enhance service efficiency, and reduce disparities for underrepresented vulnerable populations. To achieve this goal, LACDMH, in collaboration with its community stakeholders, designed four INN models to serve different underrepresented populations, and to promote community collaboration and service integration for consumers and their families. These models focus on wellness, recovery, and resilience, are culturally competent, and are driven by consumers, family members, parents, and caregivers. All four models share the vision of providing a fully-integrated physical health, mental health, and substance abuse treatment program for specific vulnerable populations in a large, diverse urban environment and in a complex system of care.

The INN program models of care include the Integrated Clinic Model (ICM), the Integrated Mobile Health Team Model (IMHT), the Community-Designed Integrated Service Management Model (ISM), and the Integrated Peer-Run Model.

The ICM model is designed to improve access to quality culturally competent care for individuals with physical health, mental health, and co-occurring substance abuse diagnoses by integrating care within both mental health and primary care provider sites.

The IMHT model is designed as a client-centered, housing-first approach that uses harm reduction strategies across all modalities of mental health, physical health, and substance abuse treatment. IMHT particularly focuses on individuals who are homeless or recently moved to Permanent Supportive Housing (PSH) and are considered to have vulnerabilities such as age, years homeless, co-occurring substance abuse disorders, and/or physical health conditions.

The ISM provides a holistic model of care whose components are defined by specific ethnic communities and promotes collaboration and community based

partnerships to integrate health, mental health and substance abuse services together with alternative, or non-traditional services to support recovery. The ISM model is divided into five ethnic models: African Immigrant/African American, American Indian/Alaskan Native, Asian/Pacific Islander, Eastern European/Middle Eastern, and Latino.

Lastly, the Integrated Peer-Run Model includes the Peer Run Respite Care Homes (PRRCH) and the Peer Run Integrated Service Model (PRISM). PRRCH is a short-term residential program for individuals with mental health, physical health and/or substance abuse treatment needs who feel like they are currently experiencing a crisis. PRISM serves a similar population as an outpatient resource center by offering opportunities for social connections and connections to the community as well as referrals and skills training.

Both types of peer-run programs were designed, and are run by people with lived experience.

Each model employs a comprehensive, diverse staff selected to fit with the model's needs and goals. The ICM, IMHT, and ISM were all launched in early 2012 and the Peer-Run Model was launched in late 2012. As the Peer-Run Model has an additional year to offer services, the current report will only provide evaluation outcomes for the ICM, IMHT, and ISM.

Due to the unique goals of each of the models, there are notable differences between the clients who enroll in each one. These differences should be considered while reviewing the current data, as clients with fewer resources or a longer history of health concerns may require more time or resources to make clinically meaningful improvements in their health. The data in this report is organized by model to provide additional context for changes in client outcomes.

# **Meet the Evaluation Team**

Principal Investigator Dr. Todd Gilmer from Health Services Research Center (HSRC) at the University of California, San Diego (UCSD) was contracted to lead the evaluation of the INN programs. To address the varied evaluation needs of the project, Dr. Gilmer established an evaluation team by partnering with Harder+Company Community Research and Dr. Ben Henwood from the University of Southern California (USC).

The evaluation team was initially charged with developing a tracking system and identifying instruments to measure program characteristics, and clients' behavioral and physical health outcomes and recovery.

In May 2012, the evaluation team implemented the selected outcome measures and launched the Innovation Health Outcomes Management System (iHOMS). Through the course of the evaluation, the team provided progress reports, outcome interpretation, and ongoing training and support in the evaluation measures and iHOMS to LACDMH and the INN program staff.

**HSRC** was established in 1991 by the UCSD Department of Family and Preventive Medicine. HSRC provides comprehensive research services in the fields of health outcomes measurement, program evaluation, and

informatics. HSRC strives to help healthcare organizations improve health care delivery systems and, ultimately to improve people's quality of life through innovative research, evaluation, and informatics strategies. HSRC comprises a diverse staff whose expertise encompasses the fields of primary care, public health, clinical and applied psychology, health outcomes measurement, program evaluation, and medical informatics.

Harder+Company Community Research was established in 1986 with a mission to help organizations achieve social impact through quality research, strategy, and organizational development services. Harder+ Company has offices throughout the state of California, and has worked with both public and private agencies to plan, evaluate, and improve health, mental health, and social services programs. With a diverse and comprehensive staff, Harder+Company has the capacity and expertise to conduct program evaluation using a range of quantitative and qualitative methods in multiple languages, and has built a strong reputation for their ability to work in highly diverse communities.

# **Evaluation Methods**

The evaluation team, in consultation with LACDMH, implemented a variety of qualitative and quantitative evaluation techniques to best address the needs of LACDMH and the INN programs. The key indicators and measures include physical health status improvement, mental health status improvement, substance use/abuse, client satisfaction, staff satisfaction, stigma, level of service integration, and cost effectiveness. Client and clinician completed assessments were used to capture many of these indicators.

#### **ASSESSMENTS**

INN programs targeted clients experiencing chronic mental and physical health conditions and substance abuse. The evaluation team developed assessments that were general enough to be applicable for this diverse population with an array of health concerns. Specific measures were selected to capture changes in many areas of global mental and physical health, while being clinically useful for program staff and clinicians. Separate assessments were developed for adults and youth. The enrollment criteria prevented many programs from enrolling young clients, so only results for adults (over age 16) are included in the current report.

Additional information on specific measures can be found in the **Glossary**.

#### **Client Integrated Self-Assessment**

To measure the client's perspective of their behavioral and physical health and well-being, clients were asked to complete the Integrated Self-Assessment. The baseline Integrated Self-Assessment was distributed within 30 days of enrollment, and follow-up assessments were given every three months. The Integrated Self-Assessment includes the Patient Reported Outcomes Measurement System (PROMIS) Global Health scale, the Creating Healthy Outcomes: Integrated Self-Assessment Supplement (CHOIS), the Physical Health and Behavior survey, and the PROMIS-Derived Substance Abuse scale. All measures were distributed semi-annually, except for the PROMIS Global Health, which was distributed quarterly. Additionally, all clients were asked to complete the Internalized Stigma of Mental Illness (ISMI) scale at baseline, and either the

ISMI, Post-Outcomes survey, or Satisfaction survey, semi-annually.

The integrated self-assessment is available in English, Spanish, Farsi, Eastern Armenian, Russian, Korean, Khmer, Simplified Chinese, Samoan, Traditional Chinese, and Tongan; screen reading technology was also implemented for the visually impaired or illiterate to provide culturally appropriate delivery and ensure client autonomy in completing assessments.

#### **Clinician Assessment**

In order to measure clinician perception of client health and recovery, clinicians were asked to complete the Illness Management and Recovery (IMR) scale as well as the Milestones of Recovery scale (MORS) quarterly. Additionally, in order to better assess physical health, clinicians were asked to complete the Physical Health Indicators Screener semi-annually, which consists of indicators of health that should be collected in routine primary care, such as height and weight, blood pressure, and risk for or presence of chronic conditions such as diabetes, cardiopulmonary disease, asthma, tuberculosis, emphysema, and sexually transmitted diseases. Lastly, all staff members regardless of role were asked to complete the Staff Satisfaction survey.

#### **DATA MANAGEMENT SYSTEM**

The Innovation Health Outcomes Management System (iHOMS) is a secure web-based system developed by HSRC as an electronic health record to track client health. The system allows clients and clinicians to complete assessments electronically. Clinicians can also print paper versions of the questionnaires, which can then be entered into the system using a previous assessments mode. System users can view client-level and program-level recovery outcome reports in iHOMS, and program administrators can also download data for their own analyses.

iHOMS was designed to streamline the data collection and review process. Several features to improve this process include: presenting assessments as smart forms to minimize redundancy and response burden, tracking when clients are due for an assessment, a notifications system that allows for key indicators to be flagged immediately (such as suicide risk), and client and program level data reports available in real-time, allowing for clinical utility and program evaluation. As many INN clients were not native English speakers, or were not literate in their native language, client assessments were available in several languages in iHOMS. The system also used screen-reading capabilities to help clients who could not read complete the assessments independently.

Another key feature of iHOMS was the integrated help functions. Many resources were available to clinicians including downloads of the training manuals, recordings of webinar trainings in using iHOMS and collecting evaluation measures, and contact information for the live help desk which was staffed during regular business hours. With such a complex system, live help proved to be invaluable to the adoption of the new system.

#### **MEASURING CLIENT RECOVERY**

Paired samples t-tests and chi-square tests were used to examine the *statistical significance* of changes in scores on the measures over time. These procedures provide evidence that change was due to the benefits of receiving INN services and not chance variation.

Statistical analysis using paired or matched samples was performed by selecting only the cases that have complete data for each time point being measured. For example, to compare change in PROMIS Global Health ratings across the first year of services, the paired sample would only include clients who completed the PROMIS at both the baseline and twelve month follow-up assessment.

These paired comparisons show change for individual clients as they progress through services, which allow changes to be more easily attributed to INN services. Using paired samples decreases sample size. While data for all clients provide a more complete picture of the clients being served, they can be biased by clients who were discharged from the program without completing follow-up assessments, or clients who missed the baseline assessment.

These statistical analyses determine the likelihood that changes were due to chance, but do not demonstrate the magnitude of the change. Statistical significance is also influenced by extraneous factors, such as sample size. Due to smaller sample sizes, statistical analyses for provider-level outcomes and more long-term comparisons (e.g. baseline/eighteen-months) may not

be statistically significant. This does not indicate that the changes were not meaningful to clients' health. Additional analytical techniques were used to determine *clinical meaningfulness*, or whether the changes on the outcome measures reflect meaningful changes in individual health. Clinical importance or meaningfulness is determined by individual client improvement and is therefore less influenced by sample size.

Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. MID estimates were calculated separately for each outcome measure using the benchmark distribution method of ½ the standard deviation of scores at baseline. However, the MORS uses a MID of 1, which is the smallest observable change for the scale. Although the MORS is not a linear scale, transitioning into a higher or lower level of recovery was interpreted as a clinically meaningful change. Additionally, the Physical Health Indicators, such as BMI, Diabetes, Blood Pressure, and Cholesterol, as well as single-item measures of substance use, service use, and constructive behaviors use an MID of 1.

If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome. Along with the statistical analyses, the percentage of clients who achieve a clinically meaningful change is presented for each outcome measure. Additionally, for some measures, maintaining a healthy score was important when considering client recovery over time (for example, no alcohol use). For these measures, the percentage of clients who maintained healthy scores was included with the percentage who had a clinically meaningful improvement.

The MID estimates used in the current report are provided in the table below.

Minimal Important Difference (MID) Estimates				
Scales and Subscales	MID Estimate			
Overall IMR	0.3			
IMR Recovery	0.4			
IMR Management	0.4			
IMR Substance Use	0.8			
MORS	1.0			
Overall PROMIS	0.4			
PROMIS Mental Health	0.4			
PROMIS Physical Health	0.4			
Physical Health Indicators	1.0			
CHOIS Psychosis	0.6			
CHOIS Memory and Cognitive Impairment	0.6			
CHOIS Strengths	0.4			
Internalized Stigma of Mental Illness	0.3			
PROMIS-Derived Substance Use	0.6			
Self-Report Alcohol and Drug Use	1.0			
Self-Report Incarcerations	1.0			
Self-Report ER Visits	1.0			
Clinician-Report Inpatient Hospitalization	1.0			

Time points for analyses were selected by LACDMH and the evaluation team to best demonstrate the efficacy of the programs. The IMHT model was the first model to begin enrolling clients, and therefore had data available over the greatest time period. As a result, outcome data for the IMHT model were analyzed from baseline to twelve months and from twelve months to twenty-four months. Evaluation measures were not in place when IMHT began enrolling clients, so there were few baseline assessments for clients who had been in the program for twenty-four months. As a result, the matched sample for baseline to twenty-four months was too small to analyze.

The ICM had few clients who had participated in INN for twenty-four months. Analyses for ICM included a matched sample of baseline to twelve months and baseline to eighteen months to show results over the maximum period of time.

ISM providers had the longest client engagement period, and as a result had few clients who had been in the program for over twelve months. Analyses for ISM include a matched sample of baseline to twelve months.

#### **COST EFFECTIVENESS ANALYSIS**

The evaluation team estimated the costs and cost-effectiveness of the INN programs. Two estimates of costs are provided. The first cost estimate included INN costs in the year after enrolling in an INN program, including INN healthcare services, community outreach services (COS), and community support services (CSS). The second cost estimate included both INN costs and the difference in non-INN costs from the year prior to enrollment to the year post enrollment. Non-INN costs include psychiatric inpatient stays, emergency room visits, and non-INN mental health services provided by Los Angeles County.

Cost-effectiveness was estimated by dividing INN costs by the change in Quality Adjusted Life Years (QALYs) over the year after enrolling in an INN program. QALYs provide an estimate of the change in health status and are used to standardize costs across programs who serve clients with differing symptom severity. QALYs were estimated following published guidelines for the PROMIS Global Health scale. The incremental cost effectiveness ratio (ICER) is the change in costs divided by the change in QALYs.

Defining the criteria for what is cost-effective based on total cost per client or cost per QALY must take into account the context of the program services and the clients served. INN programs offer services outside the scope of most public health programs and target clients who are severely impaired with co-occurring mental and physical health disorders and substance abuse. All cost analyses in the current report have the limitation that there was no control group. This prevents us from being able to directly attribute client improvements to the INN programs. The relative cost effectiveness figures presented in the current report should be considered estimates.

# **Estimating INN Costs**

All cost data were pulled from the LACDMH IS database. The INN Services dataset features one row for services performed by an INN provider between February 8, 2011, and August 28, 2014. Each client is identified

<sup>&</sup>lt;sup>1</sup> Revicki, D.A., et al. (2009). Predicting EuroQOL (EQ-5D) scores from the patient-reported outcomes measurement information system (PROMIS) global items and domain item banks in a United States Sample. *Quality of Life Research*, *18* (6), 783-791.

with a unique identifier called *clientid*, and appears, on average, 60.2 times. Service providers are identified with variables including *billingprovidername* and *planname*. While clients tend to rely on one main provider, some switch between different providers within a model.

In order to estimate per-person INN Services Costs, each *clientid* was assigned to one and only one billing provider, which in turn was assigned to an INN model. Though each client may have received services from multiple providers or provider types, each client was assigned to one INN provider based on which provider gave the first "INN Episode" service to that individual, as indicated by the "Episode List" dataset. The date of this service was also used to assign a "start date" for each client. Prior to calculating total costs for each individual, services that were performed more than a year before or after the client's start date were excluded, as were individuals whose first INN service was received before their start date or more than 90 days after their start date.

The final sample included 3707 clients: 1300 in ICM, 579 in IMHT, and 1828 in ISM. With each client now being associated with one and only one INN provider, mean total INN costs were estimated (excluding costs associated with non-INN services) by provider, and in turn, by INN model.

Services performed for community outreach services (COS) were detailed in a separate dataset. Because these activities are oriented towards engaging a community, costs for these services cannot be assigned to individual clients. Instead, these costs were aggregated at the provider level, and then to INN model. This was done without any reference to individual clients or start dates. Mean outreach costs by INN model were estimated by taking the total of outreach costs by model, and then dividing by the number of INN clients within each provider or model.

Services that were outside the scope of traditional LACDMH offerings were manually billed using community support services (CSS). These expenses tended to go towards physician or non-traditional provider time, or services such as vouchers for clients. These costs also could not be assigned to individual clients, and were aggregated at the provider level, and then to INN model. This was done without any reference to individual clients or start dates. Mean

support costs by INN model were estimated by taking the total of support costs by model, and then dividing by the number of INN clients within each provider or model.

Overall mean costs were estimated for each INN model and provider by combining the mean total costs for INN services with mean total costs for COS and CSS.

#### Non-INN Service Use and Costs

The percentage of INN-enrolled individuals that used inpatient or emergency room services was estimated, using a time period of a year prior to a year following enrollment in an INN program. Program start dates were assigned to each *clientid* in the dataset, so that episodes that occurred outside this time frame could be ignored. The percentage of individuals (*clientids*) that had any psychiatric inpatient episodes (Psych IP) or psychiatric emergency room (Psych ER)episodes in the year prior to or after enrollment was calculated by program type.

For Psych IP episodes, the length of stay for each episode in the year before and after enrollment was calculated to reflect the difference between the discharge date and the admission date. For episodes in which the discharge dates and admission dates were the same day, the length of stay was considered one day rather than zero. The sum total length of stay for each individual was calculated across all stays; individuals with no stays had a total of zero days. These individual totals were used to calculate the mean total number of Psych IP days by model and program.

For Psych ER episodes, the number of episodes for each individual in the year before and after enrollment was calculated. The total number of visits for each individual was calculated, and used to generate the mean total number of Psych ER visits by model and program.

Finally, a dataset of non-INN services was used to calculate non-INN-related costs. All services performed by an ICM, IMHT, or ISM were dropped, as were all non-INN services performed more than one year prior to, or one year after program enrollment. Non-INN costs were aggregated at the program and model level. Including non-INN costs did not significantly affect the findings.

# **QUALITATIVE EVALUATION COMPONENTS**

In addition to measuring client outcomes and program costs, several qualitative evaluation techniques were implemented to help describe how programs were successful and to develop promising practices for program implementation. These techniques included the Integrated Treatment Tool and a social network analysis which were used across all models. To capture the cultural competency and efficacy of the non-traditional services offered by the ISM providers, a cultural competency study was conducted along with focus groups related to the use of non-traditional services.

#### **USE OF EVALUATION MEASURES**

One purpose of the evaluation measures was to determine the relative outcomes of each INN program. To assess overall outcomes, LACDMH, with the assistance of the evaluation team, developed a rubric. Rubrics are tools for assessing complex performance that involves the consideration of multiple characteristics and data sources. Rubrics are designed to be systematic and transparent, and serve as interpretive guides for evidence.

Specifically, the INN rubric is a decision-making tool created by and for LACDMH to identify programs that are successfully achieving client outcomes. The rubric was used to:

- Systematically determine future funding recommendations and decisions, based on the weighting of outcomes,
- Help answer INN program learning questions, and
- Ensure a transparent process for evaluation and decision-making based on evaluation.

Beginning in May of 2014, LACDMH began to discuss the purpose and use of the rubric with the evaluation team. All discussions were informed by each model's service agreement and solicitation requirements.

The draft rubric was presented at the Learning Session held in July 2014 to allow INN providers the opportunity

to share their feedback on the domains, sub-domains, data sources, and potential weighting. The providers had several suggestions for additional measures and sub-domains to include in the rubric. All comments from providers were considered as the final draft was developed.

Data sources – including iHOMS, the Integrated Treatment Tool, the LACDMH IS database, and provider collected data – were reviewed for each model. The feasibility of acquiring each type of data was assessed to ensure that only reliable data sources were used. Analyses of all quantitative outcome data were completed to determine scoring parameters for each measure and each sub-domain. Minimum criteria for inclusion and scoring category names were identified.

In September, the domains, sub-domains, and scoring approaches were finalized. Weighting of the domains and sub-domains was finalized separately for each model based on the relative importance of the outcome measures to the original service agreements.

The resulting product was a set of model-specific rubrics that compares each program's outcomes with those from other programs within the same model. Each rubric includes Client Level and Program Level domains. Within these domains are sub-domains, which are often assessed using multiple sources of data.

For the physical health, mental health, substance use, and quality of life outcome measures, data in the rubric reflects the percentage of clients who either made a clinically meaningful improvement on the measure (e.g. Reduction in blood pressure determined using MIDs), or who maintained a healthy status (e.g. normal blood pressure). This method prevented programs from being penalized for enrolling clients who do not have every chronic condition being measured.

Data from the IS database were analyzed according to the goals of the program and the method of data collection. Integrated Treatment Tool results were assessed using benchmarks defined by the Tool.

The data selected to include in this report reflects the data included in the rubric for each model. A consolidated rubric across models is included below.

# **LACDMH INNOVATION RUBRIC**

ICM & IMHT only, ICM and ISM only, ICM only, IMHT only, ISM only

Level	Domain	Sub-domain	Data source
Client Level			
	<b>Quality of Care</b>	Mental Health Outcomes	iHOMS – IMR Recovery and Management
			Subscales, CHOIS, PROMIS Mental Health, MORS
		Physical Health Outcomes	iHOMS – Physical Health Indicators, PROMIS
			Physical Health
		Substance Abuse Outcomes	iHOMS – IMR Substance Use scale, Self-reported
			alcohol/substance use, PROMIS Substance Use
			scale
		Physical Health Labs (screening)	iHOMS – Percent screened on Physical Health
			Indicators
		Cultural Competency	iHOMS – Client satisfaction items
	Quality of Life	Incarcerations	iHOMS - Client report
		<b>Emergency Services</b>	iHOMS - Client report, IMR item
		Employment/Volunteer/School	iHOMS - Client report
		Housing	iHOMS – Clinician report
		<b>Housing Retention</b>	Captured by providers
		Income/Benefits	Captured by providers
		Stigma	iHOMS – Internalized Stigma of Mental Illness
			scale
		Social Support	IHOMS – IMR items
	<b>Client Satisfaction</b>	Client Satisfaction	iHOMS – Client Satisfaction Survey
<b>Program Lev</b>	el		
	Data Compliance	Data Compliance	iHOMS
	Access to Care	Clients served relative to target	Captured by providers – demographics,
			diagnoses
		Client Flow	iHOMS – successful discharge
		Clients receive desired care	iHOMS - Client Satisfaction Item
		Service Location	IS
	Staffing	Staff Satisfaction	iHOMS - Staff Satisfaction Survey
		Staff Development	IT Tool
		Peer involvement	IT Tool
	Cost	Cost	IS
	Integration	Integration Efforts	IT Tool Report, iHOMS - Client Satisfaction and
			Staff Satisfaction
	Outreach &	Client Engagement	iHOMS - MORS score, Client Satisfaction
	Engagement		
		Success in reaching target	iHOMS – Client UREP status
		population	

#### **LEARNING SESSIONS**

Working in partnership with LACDMH staff, the evaluation team designed and facilitated ten Learning Sessions during years one and two. Learning Sessions were designed to support the implementation of innovation by creating opportunities for providers and LACDMH to identify common challenges and recognize promising and best practices as they developed in real-time. Learning Sessions supported INN program implementation in the short run and strengthened networks of relationships among providers in Los Angeles County. The graphic timeline on the next page illustrates the timing and topical focus of each Learning Session across two years of the project.

Initial Learning Sessions were primarily conceptualized and led by LACDMH and evaluation team members. Over time, the team intentionally shifted the focus of Learning Sessions, so that at least half of each session involved provider-led panel discussions and small group activities designed to facilitate sharing and learning. All Learning Session participants were encouraged to nominate topics for the subsequent Learning Session to ensure sessions were relevant and useful to providers. In addition, a Learning Session workgroup was created to collaboratively plan each Learning Session. The open workgroup included LACDMH staff from each INN

model (ICM, IMHT, ISM, Peer) and INN providers. Clinical Education Units (CEU) were offered at two of the first year sessions and all of the year two sessions to increase the value to participants.

Organizations typically brought between two and five team members, including a mix of administrative and clinical staff. While some organizations opted to bring the same core set of staff members, others alternated attendance at each session – often with the program director attending consistently and other program staff participating dependent on the agenda topics and availability.

After providing detailed notes to LACDMH for Learning Session I, the team proposed to produce a more comprehensive summary of Learning Session activities that could be shared with participants. The resulting four-six page "Learning Briefs" were produced following Learning Sessions II-X in order to document the activities, challenges, and innovations that emerged during each meeting. Each Learning Brief consisted of a summary of the session's activities, highlights of key findings and extensive appendices capturing table notes and group ideas with the goal of extending learning opportunities beyond the session.

# **LACDIMH Innovation Learning Sessions**



April 25th, 2013. Learning To-

Community. Provider organizations mally became a part of the Learning mon challenges and promising pracsions were used to understand comvolving peers. Small group discusshared some best practices for in*gether* The Peer Run Models for tices in integrated care.

January 16th, 2014. Tools of the Trade This Learning Session focused on ments. The IBHP tool kit was introduced with discussion about how it could group discussion about challenges and solutions for specific integration elethe Integrated Treatment Tool (ITT) and the Integrated Behavioral Health Project (IBHP) resource tool. ITT results were shared followed by small be applied to INN programs.

Introduction | LA Innovations End of Year Report December 2014

Data to Implement Program Change April 17th, 2014. Utilizing Outcome

ers used this information to develop SMART models was shared with attendees. Providoutcomes. Outcome data for programs and The Learning Session began with a provider panel about the use data to improve client goals to improve their program over the next quarter.

learned and how they can be helpful to the continuum of two years of INN lessons

Learning Session highlighted

Journey Together The

January 15th, 2015. Our

included a panel of consumers care moving forward. It also discussing the impact of INN integrated services.

2012

measures and an overview of IHOMS. Large group

discussions focused on integrated charts, integrated teams and funding integrated services.

standing the purpose of the INN Evaluation. It

included an introduction to the proposed

tion The Learning Session focused on under-

October 4th, 2012. Introducing the Evalua

ognize one year of INN, it also included **Learning Together** This Learning Session focused on improving care coordimeasures into clinical practice. To rec-November 7th, 2013. One Year of a panel of consumers discussing the nation and integration of outcome benefit of INN integrated services.

model-level Story Boards to introduce the tool and

The focus was on the use of data to describe pro-

lanuary 24th, 2013. How Data Tells a Story

work Analysis (SNA) and Story Boards were intro-

duced for the first time. LACDMH staff created

gram implementation and outcomes. Social Net-

providers created informal SNA to illustrate work-

ng relationships with their service partners.

small group discussion about the SMART goals that were

This Learning Session included a provider panel and

July 17th, 2014. Applying Learning

care overall. The evaluation team and DMH introduced

the concept of a rubric for assessing program performance and provided an opportunity for attendees to

comment on proposed assessment domains.

how INN learnings can be beneficial the continuum of

cept of "spread" was introduced with discussion about implemented since the last Learning Session. The con-

2015

2014

2013

delivering integrated care. Providers also pro-



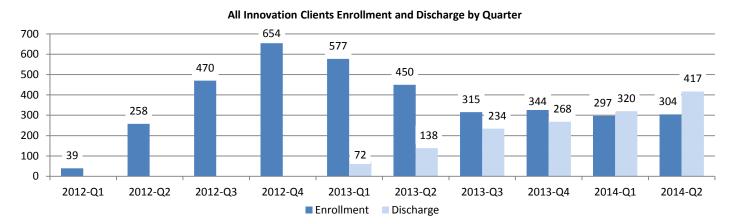
highlight of the day: 1) Aligning INN service delivery with health care reform and 2) Innovations in sis on provider-led sharing. Two panels were the duced and shared Story Boards in a conferencestyle poster session.

PhotoVoice and case studies, as vehicles for spreading learning October 30th, 2014. Innovation Best Practices This Learnabout promising practices learned by INN programs. Providers were introduced to qualitative story telling methods, such as ing Session included a provider panel for continued sharing from their experience as INN providers.

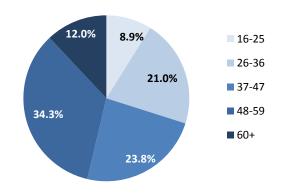
# **Overall Innovation Evaluation Findings**

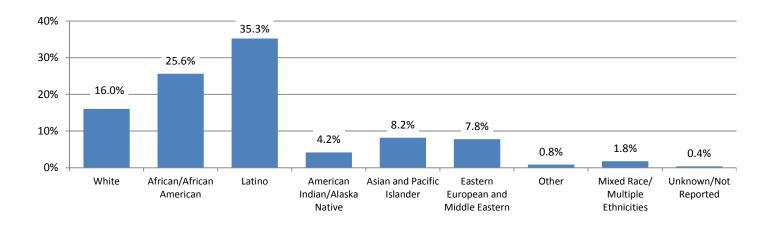
# INN PROGRAM ENROLLMENT AND DEMOGRAPHICS

To date, a total of 3,708 clients (one in 2011, 1,421 in 2012, 1,686 in 2013, and 601 in 2014) have enrolled in INN programs. New client enrollment in services peaked in the 4<sup>th</sup> quarter of 2012 (17.6% of clients) and remained high through the 1<sup>st</sup> quarter of 2013 (15.6%). Also, to date, a total of 1,449 clients have been discharged from INN programs. Discharge rates were highest during 2014 (50.9% of all discharged clients). The most common discharge reasons were meeting treatment goals (19.0%), non-compliance (20.8%), and not receiving services for 90+ days (9.0%).



INN clients were most likely to be between the ages of 48 and 59 (34.3%) or 37 and 47 (23.8%), and are most likely to be Latino (35.3%), with African/African Americans making up the next largest group (25.6%), followed by clients identifying as White (16.0%). There were slightly more female clients (53.3%) than male (45.5%), with 1.1% identifying themselves as other. This is a shift from the first year of INN when clients were mostly male.





#### **COST-EFFECTIVENESS ANALYSIS**

The average cost per client varied for each INN model as did the proportion of the funding that went towards services, outreach (COS) and community support (CSS). Overall, the IMHT model had the highest average cost per client, and the highest average CSS cost. This was expected based on the severity of the target population, and the anticipated expenditures on physical health care, housing, and other living expenses. The ISM model had the highest average COS cost, due to the long period of outreach and engagement activities to the target population of underrepresented ethnic groups. See Appendix A for a breakdown of cost by provider.

Annual per Client INN costs								
INN Services INN Total N Mean COS Mean CSS Mean Mean								
Integrated Clinic Model (ICM)	1300	\$4,476	\$134	\$1,323	\$5,934			
Integrated Mobile Health Team (IMHT)	579	\$16,348	\$671	\$5,405	\$22,425			
Integrated Service Management Model (ISM)	1828	\$6,587	\$1,459	\$2,496	\$10,541			

In addition to overall costs, the analysis estimated the average cost per gain in quality adjusted life year (QALY). QALYs were estimated based on client responses on the PROMIS Global Health scale. Each of the programs had a similar gain in QALYs over the first year of services; IMHT and ISM were slightly higher than ICM.

Average Cost/QALY for First Year							
INN Total QALY Cost/QAL							
ICM	\$5,934	0.048	\$123,616				
IMHT	\$22,425	0.053	\$423,109				
ISM	\$10,541	0.054	\$195,209				

Finally, the cost analysis looked at the change in non-INN service use (behavioral health services, inpatient hospitalizations, and ER visits) from the year before to the year after enrollment in INN. Only INN clients who had used non-INN services prior to enrollment in an INN program were included in this analysis. IMHT clients were the most likely to have used non-INN services in the year prior to their enrollment. They also had the highest average number of inpatient days and the highest average number of ER visits per provider. In the year after enrollment, improvements were observed in each of the models in the percent of clients using services, the average length of hospital stay, and the average number of ER visits, resulting in reduced non-INN costs. Of clients who used non-INN services before enrolling in INN, almost 70% of clients from the ICM and ISM programs did not use them in the year after enrollment, along with over 40% of clients from IMHT programs.

Annual Non-INN Service Use and Costs per Client							
Model	% Using Inpatient	Mean IP Days	% Using ER	Mean ER Visits	Non-INN Costs <sup>2</sup>	% with No Non-INN costs	
ICM (324 clients)							
Year Prior	6.2%	0.80	17.9%	0.24	\$1,608	0.0%	
Year After	4.3%	0.60	4.6%	0.08	\$1,243	69.1%	
IMHT (333 clients	5)						
Year Prior	20.1%	4.45	20.4%	0.60	\$7,311	0.0%	
Year After	15.9%	3.97	10.5%	0.23	\$6,402	41.4%	
ISM (332 clients)							
Year Prior	10.5%	1.97	11.8%	0.13	\$3,304	0.0%	
Year After	6.3%	0.71	4.5%	0.07	\$1,472	68.1%	

<sup>&</sup>lt;sup>2</sup>Non-INN Costs include non-INN behavioral health services, inpatient days and ER visits.

# **INTEGRATED TREATMENT TOOL (ITT)**

#### **Approach**

The evaluation team conducted initial site visits at 24<sup>2</sup> INN programs between April and October of 2013 to observe and identify the extent and process of changes, as well as facilitators and barriers to change as programs integrated mental health, physical health, and substance use services. . This approach to implementation evaluation provided a snapshot in time of programs that were rapidly changing and evolving as would be expected in an early phase of program development. These snapshots do not necessarily reflect a "baseline" assessment of implementation, but serve as an opportunity to identify common successes and challenges that programs have encountered during their efforts to integrate care.

In order to provide structure and focus to the program site visits, the evaluation team used the Integrated Treatment Tool (ITT) as a guiding framework and index of integration. The ITT provided a framework by which primary and behavioral healthcare services could be integrated to evaluate the presence and extent of a Person-Centered Healthcare Home Model. The tool was developed at Case Western Reserve University through support from a SAMHSA grant and incorporates the best available evidence – combining theoretical, empirical, and practice based knowledge.

Between September and October of 2014, follow up ITT phone interviews were conducted with staff who could speak to both the clinical and administrative components of each program. The goal was to learn how programs had changed since the initial site visit and identify any continued barriers to integration or additional lessons learned.

Follow up phone interviews were scheduled for one hour and consisted of open-ended questions so that programs could tell their story, as well as closed-ended questions and prompts to ensure specific information was consistently collected across programs. Openended questions included:

- How has your program changed, if at all, since our site visit last year?
- Are there particular parts of the program that you feel good about and would like to highlight?
- What are some of the barriers to integration that you continue to face?
- What have you learned from this project (What is an important lesson that you would share with programs that are just beginning this process)?

Close-ended questions were derived from the ITT that was used during initial site visits. These questions focused on 9 main domains or items from the ITT, with some customization (see items marked with an \*) for each model:

- 1) Integrated approach\*
- 2) Policies and procedures
- 3) Peer support
- 4) Care coordination\*
- 5) Assessing effectiveness
- 6) Interdisciplinary communication
- 7) Integrated health information/technology\*
- 8) Organization-wide training
- 9) Medication reconciliation\*

# **Open-Ended Responses**

# **Initial Findings**

The open-ended questions addressed many of the specific domains covered in the closed-ended questions. Nevertheless, program responses either provided additional context or revealed new information that would not have otherwise been covered. Examples include:

**Data driven**. Most programs discussed their efforts to use data – either electronic health records or iHOMS data - to inform client care and/or program development. The opportunity to incorporate data was enthusiastically and positively regarded across programs.

<sup>&</sup>lt;sup>2</sup> While there are more than 24 INN programs, the Korean ISM chose to participate as a team, as did the JWCH Bellflower and Lynwood sites.

FQHCs continued to be in flux – new partnerships were either needed or were developed over the past year. It was critical to have the "right" FQHC that was committed to a long-term relationship. This is difficult to achieve as there were many disincentives for FQHCs to partner with DMH programs (e.g., lack of clarity around billing/reimbursements, HIPAA compliance and need for legal counsel, incentives to have behavioral health staff on-site and in-house).

Systems barriers. Several system barriers continued to be noted as problematic to delivery of high quality integrated care. For example, barriers preventing the realization of an electronic integrated health record across organizations were persistent across the project period. Other systems barriers faced by some agencies included challenges creating strong levels of involvement from upper management among partner organizations, development of quality assurance standards specific to integrated care and shared across organizations, dealing administratively with competing requirements and/or expectations for documentation and compliance from LACDMH and the FQHC, and lack of clarity about team structure and leadership when staff belong to multiple organizations.

#### Twelve Month Follow Up

The follow-up interviews brought to the surface information that had not previously been addressed and/or only emerged later in the project.

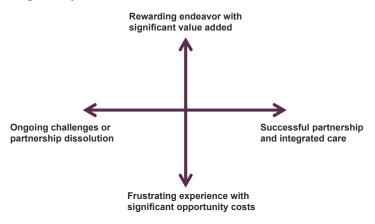
**Staff turnover**. The integration of the new program models and partnerships impacted staff disparately at different agencies. Several INN programs reported low staff turnover as compared to other programs within the same agency. This was attributed to a deep commitment to these Innovation (and innovative) programs. At the same time, other programs reported higher staff turnover (relative to their home agency) and attributed it to the ongoing change that these programs experienced. While staff turnover per se is not part of the ITT, it clearly has implications for consistency in treatment and the organizational health of provider agencies. It would be useful to explore the relationship among staff turnover and other INN program characteristics, such as stability of relationship with the FQHC partner, experience working with DMH, and speed of program enrollment.

Importance of non-traditional partners for ISM programs. Specific to the ISM programs, identifying and developing effective working relationships with non-traditional partners was important to program success. Several programs noted that the benefit of having non-traditional providers exceeded their own expectations, particularly with such services as acupuncture and yoga. However many programs experienced a number of challenges in initially identifying partners, managing the financial dynamics, and maintaining relationships with these partners over time.

Open-ended responses also pointed to a larger narrative that can be conceptualized along two main themes: (1) the relative success or challenges of developing an integrated care program and (2) program attitudes about those successes and challenges. Mapping these two themes along two-axes, the following diagram depicts four possible quadrants in which programs can locate themselves.

# How did your experiment go?

Program implementation and attitudes



Given the innovative nature of these pilot programs and the overall objective of creating a learning system, this quadrant model demonstrates that there were different approaches or pathways to supporting success. For example, programs faced numerous challenges over the past two years that may have inhibited successful partnerships and the realization of integrated care. For programs that nevertheless regarded their efforts as rewarding and valuable learning experiences, additional technical assistance and ongoing peer collaborative learning sessions may

be warranted. Other programs may need/want to restructure altogether.

Some programs regarded the challenges as frustrating and detracting from other opportunities to improve overall agency functioning. For these agencies, additional investment of time and resources may be more effective at a later time when other systems barriers have been more fully addressed. Several programs noted that issues around billing, HIPAA compliance, and organizational commitments could or should have been better addressed before their project began. The issue of opportunity costs was brought up both by the more- and less-successful integrated care partnering programs. Whether this conceptual model serves mainly as a useful template or can be used to classify each of the INN programs is something the evaluation team is continuing to explore with existing data. It would be helpful if programs were able to selfidentify with which quadrant they belong, and to articulate why.

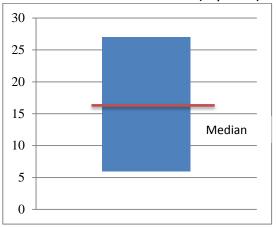
#### **Closed-Ended Responses**

Results from the closed-ended questions were straightforward. All domains consisted of dichotomized statements that were either true or not true of each program. The table below summarizes the domains that were used to score each model.

Domain	ISM	IMHT	ICM
Integrated Approach*	✓	✓	
Policies and Procedures	✓	✓	✓
Peer Support	✓	✓	✓
Care Coordination*	✓		✓
Assessing Effectiveness	✓	✓	✓
Interdisciplinary	./	./	1
Communication			
Integrated health	_		
information/technology*	,		
Organization-wide Training	<b>√</b>	<b>√</b>	<b>√</b>
Medication Reconciliation*		✓	

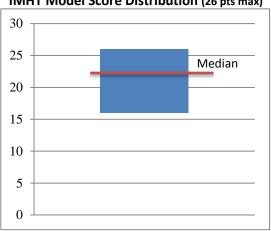
Since four of the items (see items marked with an \*) from the ITT were tailored to fit each program model, the overall scores for all domains varied by program model. The maximum score for the ISM model was 30 points, for the IMHT model was 26 points, and the maximum score for the ICM model was 25 points.

#### ISM Model Score Distribution (30 pts max)



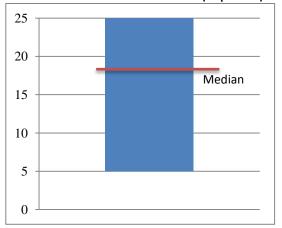
Minimum	Maximum	Median
6	27	17

#### IMHT Model Score Distribution (26 pts max)



Minimum	Maximum	Median
16	26	23

#### ICM Model Score Distribution (25 pts max)



Minimum	Maximum	Median
5	25	18

Out of the nine domains, questions about five domains were asked consistently across models. The table below highlights the average score for each domain by model and across all models.

Overall, there was more variation among the ISM and ICM programs than the IMHT programs. Further analyses are planned to explore sources of this variation.

Domain	ISM	ICM	IMHT	All Programs
Policies and Procedures (3 points)				
Written integrated care policies				
Mechanism for updating	1.1	1.6	2.6	1.5
Used to orient new staff				
Peer Support (3 points <sup>3</sup> )				
Use of peer support	1.4	2.6	2.8	1.9
Peers are part of an interdisciplinary team	1.4	2.0	2.0	1.9
Assessing Effectiveness (4 points)				
Data is shared with clients during treatment				
Data is reviewed for treatment	2.9	2.2	3.4	2.8
Data is reviewed during meetings	2.9	2.2	3.4	2.0
Data is used to guide program development				
Interdisciplinary Communication (3 points)				
There is one central medical record				
Staff have access to all medical records	1.9	2.2	2.2	2.0
Medical records are utilized during meetings				
Organization-Wide Training (3 points)				
Trainings include interactions among conditions				
All staff are trained on integrated care at orientation	1.4	2.0	2.6	1.8
Organization tracks care trainings				

<sup>&</sup>lt;sup>3</sup> An additional point was awarded to programs that had a peer during the initial site visit in 2013.

# **SOCIAL NETWORK ANALYSIS (SNA)**

#### **Background and Approach**

The site visits conducted by the evaluation team in 2013 using the ITT helped develop a general picture of the nature of integrated care in INN programs. There was variation among INN models, especially in terms of who provided care coordination and how communication functioned within multidisciplinary teams. As a way to further explore these variations, the evaluation team used a social network analysis approach to examine the frequency of communication among teams. Social Network Analysis (SNA) allows one to visualize and quantify complex systems of relationships, like those that occur in integrated care teams.

The evaluation team collected data from 331 participants in 22 INN programs between May and October of 2014. Using the Provider Communication survey designed for this project, participants were asked to develop a list of the people with whom they communicate, describe the frequency of communication, and how they communicate about client care. Specifically, INN staff members were asked:

- With whom do you communicate regarding care of Innovations clients?
- Who are the top five individuals with whom you communicate regarding care of Innovations clients?
- With whom do you communicate in person (outside of team meetings)?
- With whom do you communicate via text messaging?

Respondents were also asked to provide general demographic information such as their race/ethnicity, sex, age, languages spoken, professional background, number of years working in their profession, and

length of time working at their INN program.

Each program director provided the evaluation team with a roster of their INN staff members, their FQHC partner staff, and non-traditional providers. Rosters were used to create a social network survey that was unique to each program and was prepopulated with the names of all potential network members. Participants responded online and received a \$10 gift card in appreciation for their participation. The evaluation team is currently analyzing all 22 maps; included herein are three case studies using results from the preliminary analyses, an ISM and an IMHT.

### **Reading the Network Map**

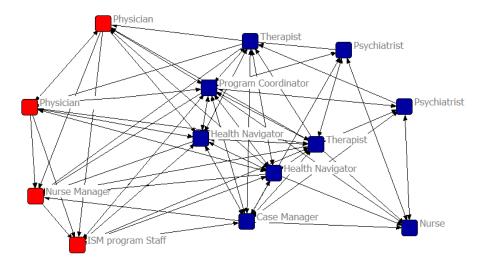
The network map provides a visual image of the connections reported among staff (referred to as "nominations"). Each square (or "node") represents an individual staff member. The lines between nodes (called "ties") represent connections; a line is present if one individual reported direct communication with another. The arrowhead indicates the direction of the information flow. Networks are sometimes described in terms of their "density". Density refers to the number of actual connections relative to the total possible number of connections. For example, a network consisting of three nodes (A, B, and C) would have the six possible two-way connections (AB, BA, AC, CA, BC, CB).

If four of those six possible connections existed, the network would have a density equal to 4/6, or sixtyseven percent. In this context, denser networks represent more communication related to client care than less dense networks.

# **Network Preview** ISM - Program A

The network map for ISM Program A included 13 network actors representing two agencies: nine respondents were affiliated with Agency A (depicted in blue), while four were affiliated with Partner A (depicted in red). In this network, the most central network actor (i.e., the individual who received the most nominations from their colleagues) was the ISM program coordinator who received 10 out of 12 possible nominations. The network actors with the fewest nominations were the program's two

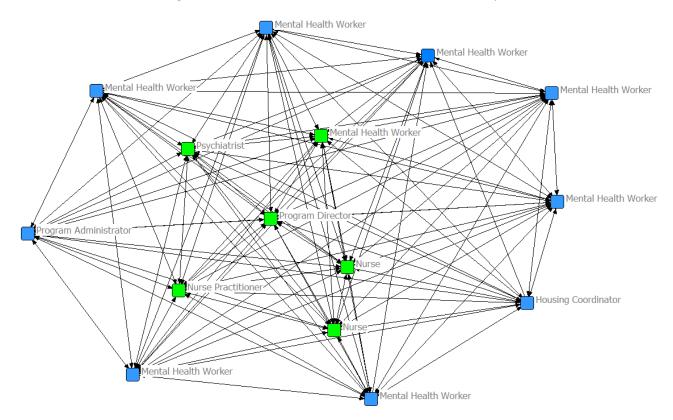
psychiatrists. In this network, the psychiatrists did not give or receive nominations from any staff from Partner A. Instead, the psychiatrists are connected to the primary care providers through the health navigators, a therapist, the program coordinator, and a case manager, indicating that these staff members create a vital bridge between psychiatry and primary care. Psychiatrists share information with therapists but receive information from therapists and the LVN nurse. This network is depicted visually below.



#### **IMHT - Program B**

The network map for IMHT Program B included 15 network actors who comprised an integrated Assertive Community Treatment (ACT) team. In this network, the most central actors are depicted in green and included the program director, the LVN, the psychiatrist, and the nurse practitioner. Each of these actors received all possible nominations from every other member of the team. The least central team members were the housing coordinator and the program administrator. A program administrator could be an assistant or a more senior staff member with administrative responsibilities; specific titles are withheld to maintain anonymity. These actors received 11 out of 14 possible nominations. Further, the network visualization below also shows that the IMHT Program B network is a

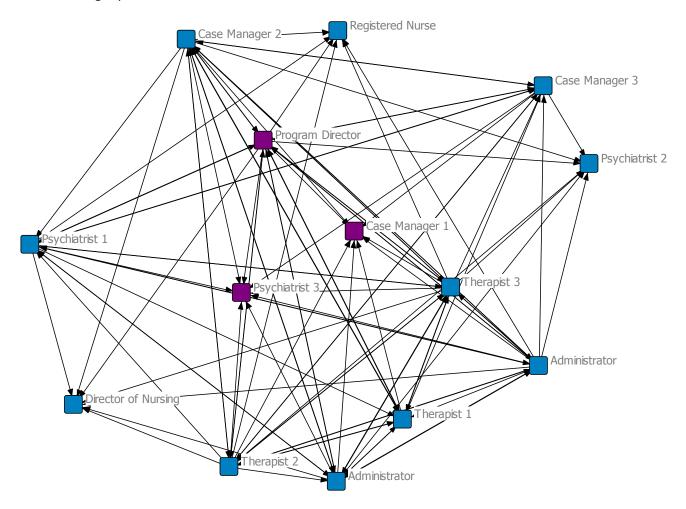
denser network relative to the ISM network above. which means that there are more network ties in this network. Specifically, 90 percent of all possible ties exist in the IMHT Program B network, compared to 68 percent of all possible ties at ISM Program A. This difference is likely due to variation in the structure of the INN models. The IMHT programs are based on the ACT model where all team members are in frequent communication via text messaging and morning meetings. The ISM and ICM programs do not use this model. In the example of IMHT Program B, the primary care nurse practitioner and psychiatry did not communicate through a peer or a case manager because the structure of the team enabled them to communicate directly.



#### ICM - Program C

This ICM network includes responses from nine individuals who are part of a 14 person team. The most central actors in this network were the program director, one of the case managers, and one of the psychiatrists. These actors each received eight of eight possible nominations, and are depicted in purple in the middle of the diagram. The team members who received the fewest nominations were a therapist, the administrator, and the registered nurse who each received six of eight possible nominations. As in the

IMHT network, this network shows a high level of connectivity. This is likely due to the co-located services at ICM Program C which enables the team to communciate directly with one another, although not all co-located teams are as highly connected as this program. Despite the high level of connectivity among those who completed the survey, only slightly over half of all possible ties exist because five ICM staff members did not participate in the survey.



# **Next Steps and Implications**

The evaluation team will continue to analyze the network maps for all 22 participating INN programs, and not only examine differences in network density, but also determine which staff are most and least central to communication for each program or model. These analyses will help better describe and understand how the ISM, IMHT, and ICM models differ in their approach to staffing and integration, as well as how different models of integration have evolved within INN. As the nature of the relationships between partnering agencies differ for each program, analyses will look at both between model differences, and within model differences.

# **Integrated Mobile Health Team: Executive Summary**

The IMHT model included a mobile treatment team that provides integrated physical health, mental health, and substance abuse services to individuals who are homeless and have severe mental illness (SMI) or serious emotional disturbance (SED), including those with co-occurring substance abuse and physical health issues. IMHT programs used a housing-first approach to immediately assist individuals and their families to transition from homelessness to a housing option of their choice. Desired client outcomes included reduced incarcerations, reduced medical and psychiatric ER visits, increased establishment of benefits for which the client is eligible, and an increased number of clients who are employed, attending school or participating in volunteer activities.

The IMHT Model consists of five programs: Exodus Recovery Inc., John Wesley Community Health Institute/South Central Health and Rehabilitation Center/Behavioral Health Services (JWCH/SCHARP/BHS), Mental Health America of Los Angeles-Homeless Innovation Project (MHA-HIP), St. Joseph Center/Ocean Park Community Center (OPCC) and Step Up on Second/Project 180.

#### **KEY EVALUATION FINDINGS**

This summary presents IMHT data related to the Innovation goals and model specific goals. A more complete presentation of all evaluation findings, including sample sizes, is provided in the full report and Appendix C. The primary goals were to:

- 1. Successfully integrate physical health, mental health and substance abuse services
- 2. Improve the physical health status of clients participating in the program
- 3. Improve the mental health status of clients participating in the program
- 4. Reduce the impact of substance abuse on clients participating in the program
- 5. Demonstrate consumer and provider satisfaction with integrated services
- 6. Provide a cost effective model of care

#### Program enrollment and client characteristics

A total of 581 individuals enrolled in an IMHT program during the evaluation period. Exodus Recovery, Inc. and St. Joseph Center/OPCC had the highest enrollment (24.4% and 25.5%, respectively). IMHT clients were most likely males (66.8%; 32.5% were female and 0.7% were classified as other) between the ages of 48 and 59 (49.4%). They were most likely to identify as African/African American (44.8%), followed by White (34.4%).

#### **Overall Outcomes**

#### Integration

The Integrated Treatment Tool (ITT) was used as a guiding framework to evaluate each program's level of integration across eight domains: Integrated Approach, Policies and Procedures, Peer Support, Use of Data to Assess Effectiveness, Interdisciplinary Communication, Integrated Health Information/Technology, Organization-wide Training, and Medication Reconciliation. All domains consisted of dichotomized statements that are either true or not true of each program. Overall, IMHT programs were more integrated than the ISM or ICM models on each of the five domains. Out of a possible 26 points, the lowest score was 16, the highest score was 26, and the median score was 23. Exodus Recovery, Inc., MHA-HIP and St. Joseph/OPCC met or exceeded the median score. Relative to the other INN models, IMHT programs were rated as being Significantly Above Average or Above Average in the Peer Support and Training domains.

#### **Mental Health**

For IMHT clients overall, there was a significant decrease in Overall IMR scores and a significant increase in MORS ratings from baseline to twelve months and from twelve to twenty-four months. There were also significant decreases on the client-reported mental health measures from baseline to twelve months: the Mental Health subscale of the PROMIS Global Health scale, and the CHOIS Psychosis, CHOIS Memory/Cognitive Impairment and CHOIS Strengths subscales. Each of these results indicates improvement in mental health status after enrollment in INN services for IMHT clients with matched assessments.

	IMR Overall						MORS				PROMIS Mental Health Subscale			
	MID	Change	MID	Change	MID	Change	MID	Change	MID	Change	MID	Change		
Program	1 vs. 5	1 vs. 5	5 vs. 9	5 vs. 9	1 vs. 5	1 vs. 5	5 vs. 9	5 vs. 9	1 vs. 5	1 vs. 5	5 vs. 9	5 vs. 9		
<b>Exodus Recovery</b>	95.9%	$\downarrow$	70.0%	lacksquare	90.5%	<b>1</b>	62.1%	<b>^</b>	100%	$\downarrow$	63.6%	$\downarrow$		
JWCH/SCHARP/BHS	68.0%	<b>V</b>	36.4%	$\rightarrow$	78.6%	<b>^</b>	30.0%	$\rightarrow$	50.0%	$\rightarrow$	25.0%	$\rightarrow$		
MHA-HIP	78.4%	<b>4</b>	20.0%	$\rightarrow$	75.0%	<b>^</b>	26.7%	$\rightarrow$	66.2%	$\downarrow$	0.0%	<b>^</b>		
St. Joseph/OPCC	70.0%	<b>4</b>	60.9%	<b>4</b>	59.0%	<b>1</b>	40.9%	$\rightarrow$	52.4%	<b>4</b>	40.0%	$\rightarrow$		
Step Up on														
Second/Project 180	46.0%	lack	0.0%	$\rightarrow$	52.1%	<b>^</b>	66.7%	$\rightarrow$	48.4%	$\rightarrow$	-	-		
IMHT Model Overall	74.9%	<b>↓</b>	51.2%	<b>+</b>	72.9%	<b>1</b>	45.6%	<b>^</b>	59.7%	<b>→</b>	37.8%	<b>↓</b>		

Notes: Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

Please note when comparing outcomes that the matched sample size for each measure varies between programs. Dashed lines (-) indicate that the program did not have a large enough matched sample (N<3) to analyze change in score. Refer to the data appendix for sample size information.

#### **Physical Health**

There was a significant decrease in PROMIS Global Health Physical Health subscale scores for IMHT clients from the baseline to the twelve month assessment, indicating improved physical health. There were no significant changes on the Physical Health subscale from the twelve month to the twenty-four month assessment; however, 40% of IMHT clients had a clinically meaningful improvement during this time period.

There were also significant changes in body mass index (BMI) and blood pressure for IMHT clients. When compared to baseline, BMI and blood pressure were significantly higher at the twelve month assessments, with more clients falling into the overweight/obese weight category. The increase in BMI is possibly an indication that clients are receiving new medications or taking their existing medications more consistently, as many medications (especially antipsychotics) are known to cause weight gain. Weight gain can impact one's blood pressure. Risk for hypertension decreased significantly at the twenty-four month assessment compared to the twelve month assessment, with more IMHT clients falling in the normal risk category. BMI also decreased during this time period; however the change was not statistically significant. As IMHT clients had longer history of health concerns and many known barriers to accessing care, it is possible that clients require more time to show significant improvements in these physical health indicators.

	PROMI	S Physical	Health S	Subscale	вмі				Blood Pressure				
	MID	Change	MID	Change	MID	Change	MID	Change	MID	Change	MID	Change	
Program	1 vs. 5	1 vs. 5	5 vs. 9	5 vs. 9	1 vs. 5	1 vs. 5	5 vs. 9	5 vs. 9	1 vs. 5	1 vs. 5	5 vs. 9	5 vs. 9	
<b>Exodus Recovery</b>	75.0%	$\rightarrow$	63.6%	<b>4</b>	33.9%	$\rightarrow$	24.0%	$\rightarrow$	41.6%	$\rightarrow$	43.3%	$\rightarrow$	
JWCH/SCHARP/BHS	50.0%	$\rightarrow$	25.0%	$\rightarrow$	43.8%	$\rightarrow$	-	-	20.0%	<b>1</b>	-	-	
MHA-HIP	63.1%	$\mathbf{\downarrow}$	0.0%	<b>1</b>	35.1%	<b>1</b>	62.5%	$\mathbf{\downarrow}$	38.0%	$\rightarrow$	60.0%	$\rightarrow$	
St. Joseph/OPCC	57.1%	$\rightarrow$	60.0%	$\rightarrow$	55.0%	$\rightarrow$	50.0%	$\rightarrow$	40.0%	$\rightarrow$	47.4%	$\rightarrow$	
Step Up on													
Second/Project 180	25.8%	$\rightarrow$	-	-	50.0%	$\rightarrow$	-	-	26.3%	$\rightarrow$	-	-	
IMHT Model Overall	52.7%	<b>\</b>	40.0%	$\rightarrow$	39.0%	<b>1</b>	38.1%	$\rightarrow$	37.8%	<b>1</b>	47.4%	<b>\</b>	

Notes: MID is the percentage of clients who made clinically meaningful improvement or maintained healthy BMI or blood pressure.

Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

Please note when comparing outcomes that the matched sample size for each measure varies between programs. Dashed lines (-) indicate that the program did not have a large enough matched sample (N<3) to analyze change in score. Refer to the data appendix for sample size information.

#### Substance Use

In general, clients in the IMHT model were more likely to report that they consumed alcohol (65.9%) or used illegal drugs (46.8%) when entering the INN program than clients in the ISM and ICM models. Compared to baseline, there was a significant reduction in alcohol consumption for IMHT clients at the twelve month assessment. During this period, clinicians reported significant improvement in IMR Substance ratings, suggesting that clients experienced less impairment in functioning due to substance use. Clients who completed the PROMIS-Derived Substance Use scale also reported a significant decrease in negative consequences associated with alcohol and/or other drug use from baseline to twelve months, and from twelve to twenty-four months.

While there was no significant change in drug use during the first or second year of services for IMHT clients with paired assessments, 28.2% of clients reduced their self-reported drug use during the first year after enrollment in INN services, and 17.1% reduced their drug use during the second year of services. At the program level, St. Joseph/OPCC was the only program that reported a significant reduction in illegal drug use among clients within twelve months of enrollment, and Step Up on Second clients reported a significant increase in illegal substance use during the same time period.

	IMR	Substance	e Use Sub	oscale	PROMIS-Derived Substance Use				Client Reported Alcohol Use			
	MID	Change	MID	Change	MID	Change	MID	Change	MID	Change	MID	Change
Program	1 vs. 5	1 vs. 5	5 vs. 9	5 vs. 9	1 vs. 5	1 vs. 5	5 vs. 9	5 vs. 9	1 vs. 5	1 vs. 5	5 vs. 9	5 vs. 9
Exodus Recovery	48.6%	$\downarrow$	40.0%	$\downarrow$	75.0%	$\rightarrow$	81.8%	$\downarrow$	50.0%	$\rightarrow$	56.5%	$\rightarrow$
JWCH/SCHARP/BHS	48.0%	$\downarrow$	45.5%	$\rightarrow$	80.0%	<b>V</b>	-	-	50.0%	$\rightarrow$	33.3%	$\rightarrow$
MHA-HIP	35.1%	$\rightarrow$	13.3%	$\rightarrow$	45.5%	$\rightarrow$	40.0%	$\rightarrow$	56.2%	<b>4</b>	50.0%	$\rightarrow$
St. Joseph/OPCC	43.9%	<b>4</b>	43.5%	<b>4</b>	66.7%	$\rightarrow$	-	-	55.0%	$\rightarrow$	25.0%	$\rightarrow$
Step Up on												
Second/Project 180	38.0%	$\downarrow$	-	-	52.4%	$\downarrow$	-	-	70.0%	$\rightarrow$	-	-
IMHT Model Overall	42.0%	<b>↓</b>	35.4%	→	53.9%	<b>↓</b>	65.4%	<b>↓</b>	58.7%	<b>+</b>	51.2%	→

Notes: MID is the percentage of clients who made clinically meaningful improvement or maintained no substance use.

Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

Please note when comparing outcomes that the matched sample size for each measure varies between programs. Dashed lines (-) indicate that the program did not have a large enough matched sample (N<3) to analyze change in score. Refer to the data appendix for sample size information.

#### Consumer and Provider Satisfaction with Integrated Services

Overall, respondents (both clients and staff) from each program were highly satisfied with services. The majority of staff respondents from the IMHT model were satisfied with their program's ability to address each of the health needs of their clients, most notably being satisfied with program's ability to address mental health and/or psychosocial needs of clients. The most variation in staff satisfaction between programs was with the program's ability to address the physical health needs and substance use issues of clients, and satisfaction with communication between providers. Respondents from each program were also highly satisfied with the integration of services. The majority of staff respondents (greater than 90%) agreed that having mental and physical health services integrated is helpful to clients in their programs.

Clients from each program were very satisfied with services on average. Overall mean scores on the client satisfaction survey were greater than four out of five for each program at the six, twelve, and twenty-four month assessments. Of the IMHT providers, only Exodus Recovery, Inc. and MHA-HIP had a large enough matched sample of client satisfaction questionnaires to evaluate changes in satisfaction over time. From the six month to the twelve month assessment, more than 90% of clients at MHA-HIP and Exodus Recovery, Inc. maintained high satisfied or increased their satisfaction. From twelve to twenty-four months, all clients from these programs maintained high overall satisfaction or increased their level of satisfaction. Looking at individual satisfaction items, clients from these programs reported being highly satisfied with the integration of services, the care provided, the cultural competency of the program, and felt empowered to participate in developing their treatment plan.

#### **Model Specific Findings**

In addition to addressing the overall goals of the Innovation project, the IMHT model had the unique goals of decreasing homelessness and incarcerations and reducing medical and psychiatric emergency room visits while providing integrated mental health, physical health, substance abuse services to individuals with SMI or SED.

#### Homelessness

In general, all IMHT programs were successful in helping clients obtain housing and decreasing the average number of days spent homeless after enrollment in INN services. At baseline, almost all clients at Exodus Recovery, Inc., JWCH/SCHARP/BHS, MHA-HIP, and St. Joseph/OPCC were chronically homeless (defined as being homeless for at least four of the previous six months). Clients in these programs had a significant reduction in the number of days homeless within twelve months after enrollment when compared to baseline (there was not enough data to evaluate this change for clients at Step Up on Second). Additionally, many clients who were housed maintained their housing for at least one year. Staff at Exodus Recovery, Inc. reported the greatest percentage of clients maintaining their housing (90.2%); however, more than half of clients (between 56%-69%) at JWCH/SCHARP/BHS, MHA-HIP, Step Up on Second and St. Joseph/OPCC maintained their housing status for at least one year.

#### Establishment of Benefits and Insurance

MHA-HIP, JWCH/SCHARP/BHS, and Exodus Recovery, Inc. were the most successful at helping clients obtain any type of insurance or benefit (including General Relief, food stamps, SSI/SSDI, and welfare). At least half (50%) of the clients at these programs who had no benefits at enrollment were able to obtain benefits to help support themselves.

#### Service Use

In general, IMHT programs were successful in reducing emergency room visits and psychiatric hospitalizations. Compared to baseline, clients from each program reported significantly fewer emergency room visits and psychiatric hospitalizations at the twelve month assessment. Each provider was able to reduce the frequency of emergency room visits from baseline to twelve months for at least a third of their clients. Exodus Recovery, Inc. was the most successful at reducing emergency room visits (66.7% of clients had fewer visits) and at reducing psychiatric hospitalizations (75.7% had a clinically meaningful reduction). Exodus Recovery, Inc. was also the only program to

report a significant reduction in psychiatric hospitalizations during the second year of INN services; however, almost 90% of IMHT clients overall had clinically meaningful reduction in psychiatric hospitalizations or maintained no hospitalizations. Additionally, between 60% and 69.2% of clients at JWCH/SCHARP/BHS, MHA-HIP, and St Joseph/OPCC, and 91.3% of clients at Exodus Recovery, Inc. either had a clinically meaningful reduction in frequency of visits to the emergency room or maintained no visits during the second year of INN services.

#### *Incarcerations*

From the baseline to the twelve month assessment, 21.1% of clients at St. Joseph/OPCC and 17.5% of clients at MHA-HIP reduced their frequency of incarcerations. While MHA-HIP was the only program that reported a significant reduction in incarcerations within the first year of services when compared to baseline, several programs reported that a high proportion of clients were not incarcerated during this time period. More than half of clients in each program reported that they had not been incarcerated within the past six months at both the baseline and the twelve month assessment. More than 80% of clients at Exodus Recovery, Inc., JWCH/SHARP/BHS, MHA-HIP, and St. Joseph/OPCC who reported that they had not been incarcerated in the previous six months at the twelve month assessment maintained no incarcerations during the second year of services.

		Homele	essness	Er	mergency	Room Vis	sits	Incarcerations				
	MID Change Maintain		MID	Change	MID	Change	MID	Change	MID	Change		
Program	1 vs. 5	1 vs. 5	housing for 1 yr	1 vs. 5	1 vs. 5	5 vs. 9	5 vs. 9	1 vs. 5	1 vs. 5	5 vs. 9	5 vs. 9	
<b>Exodus Recovery</b>	s Recovery 87.3% ↓ 90.2% (I		90.2% (N=61)	100%	$\rightarrow$	91.3%	$\rightarrow$	66.7%	$\rightarrow$	91.3%	$\rightarrow$	
JWCH/SCHARP/BHS	47.1%	$\downarrow$	68.8% (N=32)	87.5%	$\downarrow$	66.7%	$\rightarrow$	87.5%	$\rightarrow$	100%	$\rightarrow$	
MHA-HIP	74.6%	<b>\</b>	69.4% (N=62)	73.5%	$\downarrow$	69.2%	$\rightarrow$	92.1%	$\downarrow$	92.3%	$\rightarrow$	
St. Joseph/OPCC	45.2%	lack	62.2% (N=45)	61.9%	<b>V</b>	60.0%	$\rightarrow$	79.0%	$\rightarrow$	80.0%	$\rightarrow$	
Step Up on												
Second/Project 180	-	-	56.1% (N=41)	77.4%	<b>V</b>	-	-	78.6%	$\rightarrow$	-	-	

Notes: MID is the percentage of clients who made clinically meaningful improvement or maintained no incarcerations or service use.

Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

Please note when comparing outcomes that the matched sample size for each measure varies between programs. Dashed lines (-) indicate that the program did not have a large enough matched sample (N<3) to analyze change in score. Refer to the data appendix for sample size information.

#### **CONCLUSIONS**

Overall, IMHT clients showed improved physical and mental health, reduced substance use, and improved quality of life after enrolling in services. While IMHT programs demonstrated varying levels of integration, all programs were observed to have a patient-centered approach, which was one of the key goals of the model. Additionally, all of the IMHT programs were rated as having Significantly Above Average or Above Average levels of peer support and training based on their ITT scores. The model was also successful in achieving model-specific goals, including significantly decreasing in medical emergency room visits and psychiatric hospitalizations and reducing homelessness and incarcerations.

# **Integrated Mobile Health Team (IMHT)**

#### **IMHT INTRODUCTION**

The Integrated Mobile Health Team (IMHT) model was designed to improve and better coordinate the quality of care for individuals with severe mental illness (SMI) or serious emotional disturbance (SED) who met Medi-Cal medical necessity criteria for receiving specialty mental health services, were homeless or had recently moved into Permanent Supportive Housing (PSH), and had other vulnerabilities. Vulnerabilities included but were not limited to: age, years homeless, and substance abuse and/or other physical health conditions that required ongoing primary care. The IMHT model of care was intended to decrease homelessness and incarcerations and reduce medical and psychiatric emergency room visits by providing integrated mental health, physical health, substance abuse services, and immediate assistance with housing to individuals with SMI or SED.

The IMHT model aimed to improve quality of care by using multidisciplinary staff that provided mental health, physical health and substance abuse services and worked in one team, for one agency or under one point of supervision, operated under one set of administrative and operational policies and procedures, and used an integrated medical record/chart.

In addition to providing integrated mental health, physical health, and substance abuse services, IMHT programs used a housing-first approach to immediately assist individuals and their families, if applicable, to transition from homelessness to a housing option of their choice. This housing-first approach immediately provides housing without any prerequisites/conditions for psychiatric treatment or sobriety. Individuals do not have to demonstrate "housing readiness" as evidenced by sobriety, psychiatric treatment compliance and/or living successfully in transitional housing prior to being assisted with finding housing.

Services provided by the IMHT included: outreach and engagement, mental and physical health assessment, medication support, crisis intervention, individual/group therapy/counseling, referrals and linkage, housing, benefits establishment, employment and education, life skills, transportation, preventative health education and routine screenings, substance abuse services, and client and family supportive services. Desired client outcomes included reduced incarcerations, reduced medical and psychiatric ER visits, increased establishment of benefits for which the client is eligible, and increased numbers of clients who are employed, attending school or participating in volunteer activities.

The IMHT Model consists of five programs: Exodus Recovery Inc., John Wesley Community Health Institute/South Central Health and Rehabilitation Center/Behavioral Health Services, Mental Health America of Los Angeles-Homeless Innovation Project (HIP), St. Joseph Center/Ocean Park Community Center and Step-Up on Second/Project 180.

## **IMHT WEIGHTED RUBRIC**

Several measures are included in the IMHT model rubric that were not in the rubrics for the other models. These included: housing retention, income/benefits, and service location. These data elements captured key goals of the IMHT programs, and were consistently available from external data sources; either the County Integrated System (IS) or provider records. The weighting reflects the relative importance of each level, domain, and sub-domain, and was developed by the DMH Model Leads and Liaisons.

Level	Domain	Sub-domain		Weighting
Client Level	Quality of Care	Mental Health Outcomes		30%
60%	45%	Physical Health Outcomes		30%
		Substance Abuse Outcomes		30%
		Physical Health Labs (Screening)		5%
		Cultural Competency		5%
			TOTAL:	100%
	Quality of Life	Incarcerations		10%
	45%	Emergency Services		10%
		Employment/Volunteer/School		5%
		Housing (How many housed)		30%
		Housing Retention		20%
		Income/Benefits		20%
		Stigma		5%
			TOTAL:	100%
	Client Satisfaction	Client Satisfaction		100%
	10%		TOTAL:	100%
Program Level	Data Compliance	Data Compliance		100%
40%	15%		TOTAL:	100%
	Access to Care	Clients receive desired care		30%
	20%	Service Location		70%
			TOTAL:	100%
	Staffing	Staff Satisfaction		33.3%
	15%	Staff Development		33.3%
		Peer involvement		33.3%
			TOTAL:	100%
	Cost	Cost		100%
	10%		TOTAL:	100%
	Integration	Experience of Integration		25%
	30%	Service Integration		75%
			TOTAL:	100%
	Outreach & Engagement	Client Engagement		100%
	10%		TOTAL:	100%

## **ENROLLMENT AND DISCHARGE**

Each IMHT provider was expected to outreach to approximately 300 individuals, with the goal of providing ongoing IMHT services to 100 individuals. To date, 581 clients have enrolled in IMHT programs. Exodus Recovery, Inc. and St. Joseph Center/OPCC have the highest enrollment rates of the IMHT programs. Across all IMHT programs, enrollment tended to be highest during the second half of 2012.

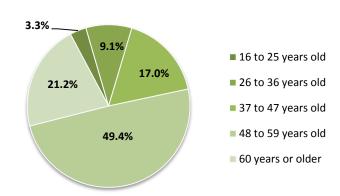
Enrollment by IMHT Provider												
		20	12		2013			2014		Total		
	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	Total		
Exodus Recovery, Inc.	28	32	28	8	8	6	7	6	4	15	142	
JWCH/SCHARP/BHS	0	5	43	14	4	11	6	6	6	1	96	
Mental Health America - HIP	0	19	19	30	17	5	0	4	3	9	106	
St. Joseph Center/OPCC	5	37	15	22	12	14	8	19	7	9	148	
Step Up on Second/Project 180	0	5	28	12	28	1	1	4	8	2	89	
Total	33	98	133	86	69	37	22	39	28	36	581	

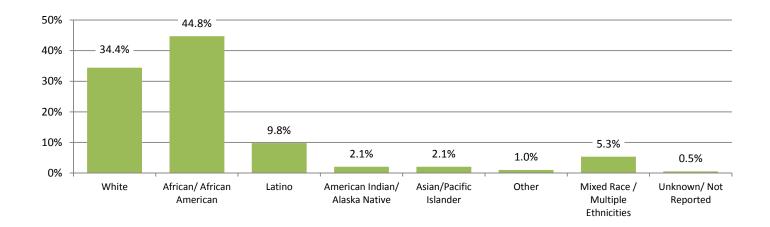
A total of 167 clients were discharged across all IMHT programs. Exodus Recovery, Inc. and St. Joseph Center/OPCC were the most likely to discharge clients with a discharge rate of 38.0% and 33.8%, respectively.

Discharge by IMHT Provider								
		20	13		2014		Total	
	QTR 1 QTR 2 QTR 3 QTR 4 QTR 1					QTR 2	Total	
Exodus Recovery, Inc.	20	7	5	8	3	11	54	
JWCH/SCHARP/BHS	2	7	0	8	3	4	24	
Mental Health America - HIP	2	0	0	9	4	6	21	
St. Joseph Center/OPCC	0	19	5	12	7	7	50	
Step Up on Second/Project 180	1	4	0	3	0	10	18	
Total	25	37	10	40	17	38	167	

## **DEMOGRAPHICS**

IMHT clients were most likely to be between the ages of 48 and 59 (49.4%). IMHT clients were most likely to identify as African/ African American (44.8%), followed by White (34.4%), and were more likely to be male (66.8%; 32.5% were female and 0.7% were classified as other).





#### **IMHT SERVICES BY PROVIDER**

#### **Service Location**

IMHT providers were expected to deliver most of their services in the field. Service location data from the IS database were used to assess the percentage of services that were delivered in the field for each provider. Several procedure codes were excluded from the analysis as they were administrative in nature, and not client-facing. These included report writing, team plan development, and record review. JWCH/SCHARP/BHS had the highest percentage of services performed in the field, followed by Exodus Recovery, Inc. and Mental Health America - HIP.

IMHT Service Location						
	% in the Field					
Exodus Recovery, Inc.	85.78%					
JWCH/SCHARP/BHS	89.21%					
Mental Health America - HIP	83.79%					
Step Up on Second	62.87%					
St. Joseph Center/OPCC	61.75%					

#### **Income and Benefits**

One of the goals of the IMHT programs was to help clients obtain insurance or other benefits to support themselves. IMHT providers captured the insurance and benefits status of clients upon enrollment in INN; benefits status was continually updated as clients obtained benefits over time. The table below reflects the proportion of clients who had no benefits at enrollment who were able to obtain any type of insurance or benefit (including General Relief, food stamps, SSI/SSDI, and welfare), and the proportion of clients who did not have SSI/SSDI at enrollment who were able to obtain SSI/SSDI. Mental Health America - HIP, JWCH/SCHARP/BHS, and Exodus Recovery, Inc. were the most successful at helping clients obtain benefits.

IMHT Income and Benefits							
No Insurance to Any Not SSI/SSDI to Insurance SSI/SSDI							
Exodus Recovery, Inc.	50.0% (N=8)	50.0% (N=56)					
JWCH/SCHARP/BHS	50.0% (N=12)	58.7% (N=46)					
Mental Health America - HIP	69.6 (N=23)	54.3% (N=70)					
Step Up on Second	33.3% (N=6)	7.7% (N=39)					
St. Joseph Center/OPCC	47.6% (N=21)	35.0% (N=60)					

## **Measures Completion**

Completion rates for the baseline, twelve, and twenty-four month assessments can be found in the table below. Clinician completion rates were higher for the mental health measures—IMR and MORS—compared to the Physical Health Indicators. The baseline completion rate was lower for the Client Self-Assessment than for the cliniciancompleted measures; however rates were similar across client and clinician measures for the twelve and twenty-four month assessments. Because there are many reasons why providers could not complete some assessments at scheduled time points, the completion goal is to have each measure completed for 80% of clients at each time point.

IMHT Measures Completion											
	Client	Self-Assess	sment	Clinici	Clinician Mental Health			Physical Health Indicators			
		12	24		12	24		12	24		
	Baseline	month	month	Baseline	month	month	Baseline	month	month		
Exodus Recovery, Inc.	35.2%	77.7%	88.2%	90.8%	79.8%	88.2%	88.0%	81.9%	94.1%		
JWCH/SCHARP/BHS	30.2%	54.3%	28.6%	59.4%	62.9%	53.6%	61.5%	34.3%	10.7%		
Mental Health America - HIP	90.6%	82.1%	68.2%	97.2%	92.9%	68.2%	95.3%	95.2%	72.7%		
Step Up on Second	84.3%	52.2%	22.2%	88.8%	80.6%	33.3%	47.2%	79.1%	0.0%		
St. Joseph Center/OPCC	68.2%	83.7%	82.1%	68.2%	83.7%	82.1%	84.5%	82.6%	75.0%		

## IMHT STAFFING AND INTEGRATION BY PROVIDER

## Integrated Treatment Tool (ITT)

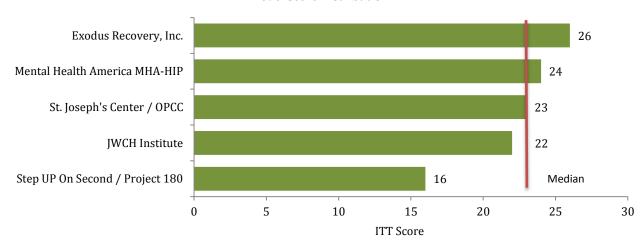
The evaluation team conducted initial site visits at all 24 INN programs in 2013 in an effort to understand what was being changed as programs integrated mental health, physical health, and substance use services, and how change was occurring – as well as facilitators and barriers to change. The evaluation team used the Integrated Treatment Tool (ITT) as a guiding framework and index of integration. Between September and October of 2014, follow up ITT phone interviews were conducted with each IMHT program. Interview participants were IMHT staff who could speak to both the clinical and administrative components of each program. The goal of the follow up interviews was to learn how programs had changed since the initial site visit and identify any continued barriers to integration or additional lessons learned. Please see the Integrated Treatment Tool Section (page 13) for more information and the overall findings across models.

Close-ended questions during the phone interview were developed from the Integrated Treatment Tool as a guiding framework and index of integration. The following eight domains were assessed for IMHT programs. Please see Appendix B for the specific anchor statements within each domain.

- 1) Integrated approach
- 2) Policies and procedures
- 3) Peer support
- 4) Assessing effectiveness
- 5) Interdisciplinary communication
- 6) Integrated health information/technology
- 7) Organization-wide training
- 8) Medication reconciliation

All domains consisted of dichotomized statements that are either true or not true of each program. Out of a possible 26 points, the lowest score was 16, and the highest score was 26. The median was 23. Below is the breakdown of the overall ITT scores by program within the IMHT model.





#### Staff Satisfaction

The Staff Satisfaction survey was administered electronically in August 2014. The survey asked staff to report on various aspects of their INN program, including service integration, comfort treating clients with various diagnoses, program capabilities, and training. Items on the survey made up two primary scales: Overall Satisfaction and Satisfaction with Integration. All staff within each agency or partnering agency who worked with INN clients were asked to complete the survey. Overall, 43 IMHT staff members completed the survey.

#### **Overall Satisfaction Scale**

The Overall Satisfaction scale included six items that assessed staff members' satisfaction with their personal ability and their program's ability to address the mental health, physical health, and substance use needs of clients. The proportion of staff who responded Agree or Strongly Agree to each of the items can be found in the table below. Although the responses from all providers are displayed, only providers who had five or more completed surveys were included in the rubric analysis (Exodus Recovery, Inc., JWCH/SCHARP/BHS, and St. Joseph/OPCC). Overall, respondents from each program were highly satisfied. All of the respondents from Exodus Recovery Inc. were satisfied with their program's ability to address each of the health needs of their clients. The respondents from St. Joseph/OPCC were the least satisfied with their program's ability to address the physical health needs of clients and with their program's ability to address the substance use issues of clients.

Overall Staff Satisfaction								
			% who Agree/	Strongly Agree				
	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6		
Exodus Recovery, Inc. (N=11)	88.9%	77.7%	90.9%	100.0%	100.0%	100.0%		
JWCH/ SCHARP/ BHS (N=15)	100.0%	92.4%	88.8%	93.3%	78.6%	86.7%		
Mental Health America – HIP (N=4)	100.0%	100.0%	100.0%	100.0%	100.0%	75.0%		
Step Up on Second (N=2)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
St. Joseph Center/ OPCC (N=11)	81.8%	72.7%	70.0%	100.0%	81.8%	63.7%		

- 1. I am satisfied with my ability to address the mental health and/or psychosocial needs of my clients.
- 2. I am satisfied with my ability to address the physical health needs of my clients.
- 3. I am satisfied with my ability to address the substance use issues of my clients.
- 4. I am satisfied with my program's ability to address the mental health and/or psychosocial needs of clients.
- 5. I am satisfied with my program's ability to address the physical health needs of clients.
- I am satisfied with my program's ability to address the substance use issues of clients.

#### **Integration Scale**

The Integration scale included five items that assessed staff satisfaction with the integration of their program, including communication between providers and service offerings. The proportion of staff who responded Agree or Strongly Agree to each of the items can be found in the table below. Although the responses from all providers are displayed below, only providers who had five or more completed surveys were included in the rubric analysis: Exodus Recovery, Inc., JWCH/SCHARP/BHS, and St. Joseph/OPCC. Overall, respondents from each program were highly satisfied. Providers from Exodus Recovery, Inc. were the most satisfied with their program's integration.

Staff Satisfaction – Integration Scale							
	% who Agree/Strongly Agree  Item 1						
Exodus Recovery, Inc. (N=11)	90.9%	100.0%	100.0%	100.0%	100.0%		
JWCH/ SCHARP/ BHS (N=15)	80.0%	85.7%	92.9%	93.4%	73.3%		
Mental Health America – HIP (N=4)	50.0%	75.0%	100.0%	100.0%	100.0%		
Step Up on Second (N=2)	100.0%	100.0%	100.0%	100.0%	50.0%		
St. Joseph Center/ OPCC (N=11)	90.9%	81.8%	90.9%	100.0%	90.9%		

- 1. In my experience, I am generally satisfied with communication between physical health and mental health providers.
- 2. I am able to provide or arrange the kinds of services I want for my clients at this program.
- 3. My program is able to provide or arrange the kinds of services I want for my clients.
- 4. Having mental health services and physical health services integrated is helpful to clients in this program.
- 5. I am satisfied with how my program is being implemented.

#### IMHT COST-EFFECTIVENESS BY PROVIDER

There were variations in the costs associated with INN services by provider. The cost analysis for IMHT programs looked primarily at INN service costs, community outreach services (COS), and community support services (CSS). The IMHT model had the greatest percentage of clients using non-INN services, such as inpatient hospitalizations and ER visits, with an average of 12.4% of clients using inpatient services (range for providers was 8.2% to 20.7%), and 11.7% using the ER (range for providers was 5.5% to 22.8%). Although non-INN services were reduced for many of the IMHT programs, changes in service use were not used to compare programs. Due to the nature of the IMHT programs, it is unclear whether services such as inpatient hospitalizations are a positive or a negative component of the program.

Of all IMHT providers, Mental Health America - HIP had the highest average INN services cost (\$18,923/client), and Step Up on Second had the highest COS and CSS costs (\$2,438 and \$9,653 respectively, per client enrolled). See Appendix A for a full breakdown of cost by provider. Within the IMHT model, Exodus Recovery, Inc., JWCH/SCHARP/BHS, and St. Joseph/OPCC were the least expensive programs with average INN total cost per client around \$20,000 over the first year. Factoring in client improvements in health using quality adjusted life years, the most cost effective programs were estimated to be St. Joseph/OPCC, Exodus Recovery, Inc., and Mental Health America - HIP.

## **IMHT EVALUATION OUTCOMES**

The IMHT model was designed as a client-centered, housing-first approach that uses harm reduction strategies across all modalities of mental health, physical health, and substance abuse treatment. In order to evaluate these outcomes, clients completed the Integrated Self-Assessment within 30 days of enrollment, and follow-up assessments every three months until discharged. The Integrated Self-Assessment's main components include the Patient Reported Outcomes Measurement System's (PROMIS) Global Health scale, the Creating Health Outcomes: Integrated Self-Assessment (CHOIS), the Physical Health and Behavior survey, and the PROMIS-Derived Substance Abuse scale. Additionally, in order to measure clinician perception of client recovery and client's current degree of recovery, clinicians completed the Illness Management and Recovery (IMR) scale as well as the Milestones of Recovery scale (MORS) quarterly. To better assess physical health, clinicians completed the Physical Health Indicators Screener semi-annually, which consists of indicators of health that should be collected in routine primary care such as BMI, blood pressure, and risk/presence of chronic conditions such as diabetes, cardiopulmonary disease, asthma, tuberculosis, emphysema, and sexually transmitted disease.

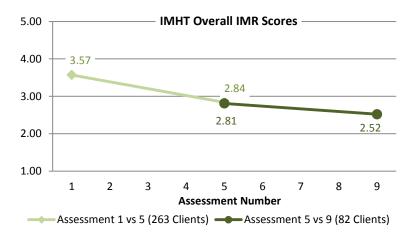
#### **Mental Health Outcomes**

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR scale and subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of IMHT clients with clinically meaningful improvements on the IMR subscales, the MORS, the PROMIS Mental Health subscale, and the percentage of IMHT clients who maintained "healthy" ratings or experienced clinically meaningful improvements on the CHOIS subscales.

#### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items that make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across all IMHT clients with matched assessments, there was a significant decrease in overall IMR scores from baseline to twelve months and from twelve to twenty-four months. This indicates that, on average, INN clients made notable progress towards their



recovery across the first two years after enrolling in services. There was a clinically meaningful improvement in overall IMR ratings for a majority of IMHT clients from the baseline to twelve month assessment (74.9%) and between twelve and twenty-four (51.2%) months after enrollment.

#### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians were asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months, and from twelve to twenty-four months. Using matched samples, at baseline IMHT clients were most likely to be in the high risk/engaged stage of recovery (62.2%) and the poorly coping/engaged stage of recovery (42.6%) twelve months after enrollment. From twelve to twenty-four months, clients continued to improve their ratings, with many additional clients in the coping/rehabilitating stage (34.2%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first two years of services. There was a clinically meaningful improvement in client recovery for 72.9% of IMHT clients from the baseline to the twelve month assessment and for 45.6% of IMHT clients from the twelve month to the twenty-four month assessment.

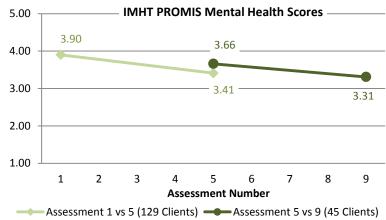
	IMHT MORS Ratings								
Rating	Stage of Recovery	Assessment 1 vs. 5 (N=251) Assessment 5 vs. 9 (N=79)							
1	Extreme Risk	4.4%	1.6%	2.5%	1.3%				
2	High Risk/Not Engaged	7.2%	4.0%	0.0%	0.0%				
3	High Risk/Engaged	62.2%	13.5%	11.4%	5.1%				
4	Poorly Coping/Not Engaged	5.2%	9.6%	6.3%	3.8%				
5	Poorly Coping/Engaged	17.5%	42.6%	48.1%	43.0%				
6	Coping/Rehabilitating	3.2%	26.3%	29.1%	34.2%				
7	Early Recovery	0.0%	2.4%	2.5%	12.7%				
8	Advanced Recovery	0.4%	0.0%	0.0%	0.0%				

#### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assessed client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores ranged from 1 to 5; however, clients were also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then converted into a 5-point scale. For all PROMIS items and scales, lower scores represented fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

There was a significant decrease in PROMIS Mental Health subscale scores from baseline to twelve months and from twelve to twenty-four months. This indicates that clients experienced improved mental health. Across all IMHT providers, 59.7% of clients had a clinically meaningful improvement on the PROMIS Mental Health from the baseline to the twelve month assessment, and 37.8% of clients had a clinically meaningful improvement twenty-four months after enrolling in INN services when compared to ratings at twelve months.

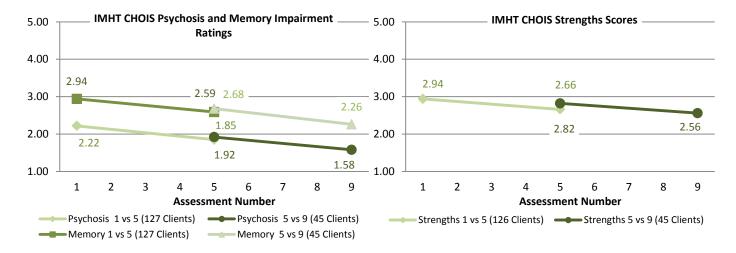


#### Creating Healthy Outcomes: Integrated Self-Assessment

The CHOIS supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/ Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

For IMHT clients with matched assessments, there was a significant reduction in scores on each of the three CHOIS subscales – Psychosis, Memory/Cognitive Impairment, and Strengths – from the baseline to the twelve month assessments, and from the twelve to the twenty-four month assessments (with the exception of the Strengths subscale from twelve to twenty-four months). This indicates that, on average, IMHT clients had fewer negative symptoms and improved resiliency after enrolling in services. Many clients had a clinically meaningful improvement or maintained healthy scores twelve months after enrollment (Psychosis: 71.7%, Memory/Cognitive Impairment:

40.2%, and Strengths: 52.3%) and twenty-four months after enrollment (Psychosis: 66.7%, Memory/Cognitive Impairment: 48.9%, and Strengths: 42.2%).

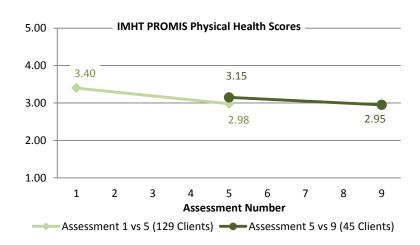


## **Physical Health Outcomes**

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings.

# PROMIS Global Health - Physical Health Subscale

There was a significant decrease in PROMIS Physical Health subscale scores from baseline to the twelve month assessment, but not from twelve to twenty-four months. This indicates that clients had improved physical health after their first year of IMHT services. Across all IMHT providers, 52.7% of clients had a clinically meaningful improvement in their physical health twelve months after enrolling in IMHT services compared to baseline, and 40.0% of clients had a clinically meaningful improvement twenty-four months after enrolling in IMHT services compared to ratings at twelve months.



#### **Physical Health Indicators**

Clinicians completed the Physical Health Indicators survey by recording the frequency and outcome of typical health screening procedures, including: height, weight, blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first twenty-four months of their enrollment in INN. Among IMHT clients, the most common screening was

for BMI, with almost 75% of all clients being screened at least once in twenty-four months. Screening of clients for tuberculosis, asthma, and emphysema was also conducted at baseline only, and is not shown in the graph below. Screening rates for these conditions was much lower, as it was often only done for clients presenting symptoms.

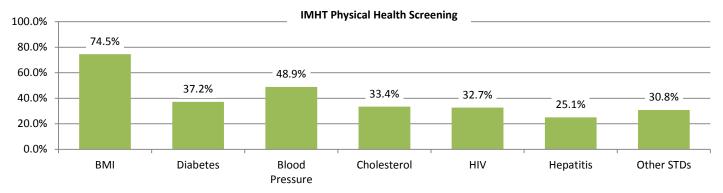


Chart provides the percentage of all IMHT clients who have ever been screened for the above health conditions within 24 months since enrolling in Innovation services. All current and discharged Innovation clients are included in the calculation of percentages, N=581.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was a significant increase in BMI from baseline to twelve months and a non-significant decrease from twelve to twenty-four months. However, from baseline to twelve months and from twelve to twenty-four months, some clients maintained a normal BMI (29.4%, 31.0% respectively). Others had a clinically meaningful improvement during the same time period (9.6%, 7.1% respectively).

IMHT Body Mass Index (BMI) Categorization								
Assessment #	Underweight	Normal Weight	Overweight	Obese				
Matched Sample Assessment 1	L vs. 5 (N=177)							
1	2.3%	41.2%	25.4%	31.1%				
5	2.3%	34.5%	30.5%	32.8%				
Matched Sample Assessment 5	5 vs. 9 (N=42)							
5	0.0%	33.3%	23.8%	42.9%				
9	2.4%	35.7%	21.4%	40.5%				

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was a significant increase in hypertension risk from baseline to twelve month and a significant reduction in risk from twelve to twenty-four months. From baseline to twelve months and from twelve to twenty-four months, some clients maintained a healthy blood pressure (17.2%, 16.9% respectively). Others had a clinically meaningful improvement during the same time period (20.6%, 30.5% respectively).

	IMHT Blood Pressure Categorization								
Assessment #	Normal	Pre- Hypertension	Stage 1 Hypertension	Stage 2 Hypertension	Hypertensive Crisis				
Matched Sample	Assessment 1 vs. 5 (	N=209)							
1	35.4%	37.8%	17.2%	6.7%	2.9%				
5	26.3%	46.4%	18.2%	7.7%	1.4%				
Matched Sample	Assessment 5 vs. 9 (	N=59)							
5	28.8%	42.4%	16.9%	10.2%	1.7%				
9	37.3%	28.8%	30.5%	3.4%	0.0%				

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels. These two indicators were combined into a single risk categorization based on the American Diabetes Association categories. If a client was categorized at different levels or risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was a significant increase in diabetes risk from baseline to twelve months and from twelve to twenty-four months after enrollment for IMHT clients. However, from baseline to twelve months and from twelve to twenty-four months, some clients maintained normal glucose and A1C levels (33.3%, 51.9% respectively). Others had a clinically meaningful improvement during the same time period (15.3%, 7.4% respectively).

	IMHT Diabetes Categorization								
	Low Blood Sugar	Normal	High Normal	Pre-Diabetic	Diabetic				
Matched Sample	Assessment 1 vs. 5	(N=111)							
1	1.8%	41.4%	11.7%	23.4%	21.6%				
5	0.0%	39.6%	9.0%	28.8%	22.5%				
Matched Sample	Assessment 5 vs. 9	(N=27)							
5	0.0%	48.1%	11.1%	18.5%	22.2%				
9	0.0%	51.9%	7.4%	11.1%	29.6%				

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels that were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk categorization, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was a significant increase in risk for heart disease based on cholesterol level from the baseline to the twelve month assessment and from the twelve to the twenty-four month assessment. However, from baseline to twelve months and from twelve to twenty-four months, some clients maintained optimal cholesterol (43.0%, 45.0% respectively). Others had a clinically meaningful improvement from baseline to twelve months (16.3%) or from twelve to twenty-four months (5.0%).

IMHT Cholesterol Categorization						
	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk	
Matched Sample	Assessment 1 vs. 5	(N=86)				
1	32.6%	26.7%	10.5%	26.7%	3.5%	
5	25.6%	29.1%	8.1%	34.9%	2.3%	
Matched Sample Assessment 5 vs. 9 (N=20)						
5	35.0%	30.0%	5.0%	30.0%	0.0%	
9	30.0%	20.0%	0.0%	50.0%	0.0%	

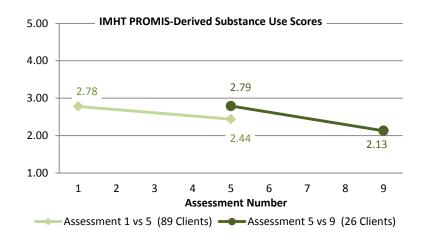
#### Substance Use Outcomes

Changes in clients' substance use were assessed using client self-report of as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and/or other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on both the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

There was a significant reduction on the PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment and from the twelve month to twenty-four month assessment. Additionally, many clients

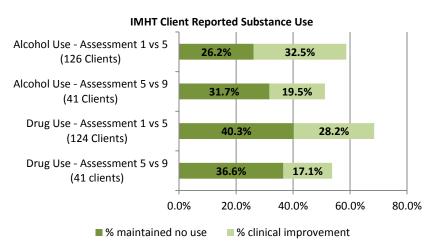


had a clinically meaningful decrease in negative consequences associated with alcohol and/or other drug use from baseline to twelve months (53.9%) or from twelve to twenty-four months (65.4%).

#### Client Reported Substance Use Items

Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey.

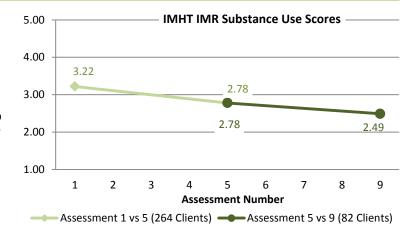
There was a significant reduction in alcohol consumption from the baseline to the twelve month assessment, but no significant change from the twelve to the twenty-four month assessment. There was no significant change in drug use from baseline to twelve months or from twelve to twenty-four months. Many clients maintained no alcohol or other drug use from baseline to twelve months (26.2%, 40.3% respectively) and twelve to twenty-



four months (31.7%, 36.6% respectively). During the same time period, other clients reduced their alcohol use (32.5%, 19.5% respectively) or drug use (28.2%, 17.1% respectively).

## Clinician Rated Substance Use: IMR Substance Use Subscale

There was a significant decrease in IMR Substance Use subscale ratings for IMHT clients from baseline to twelve months, but not from twelve to twenty-four months after enrollment. Many IMHT clients had a clinically meaningful improvement from the baseline to the twelve month assessment (42.0%) or from the twelve to the twenty-four month assessment (35.4%).



## **Exodus Recovery, Inc.**

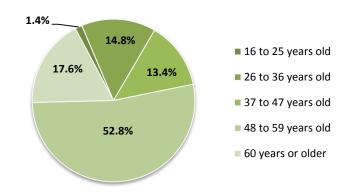
Exodus Recovery, Inc. has worked collaboratively with multiple hospitals on the west side of Los Angeles since 1989 to provide mental health and chemical dependency treatment services. Exodus Recovery, Inc. developed and implemented inpatient psychiatric and chemical dependency treatment programs, intensive psychiatric outpatient clinics and a psychiatric medical group. Exodus Recovery, Inc. provides programs that are accessible, appropriate and appealing to the culturally and ethnically diverse populations they serve. The Exodus Recovery, Inc. mission is to bring the tools for the best possible quality of life to their clients. Their concept of total health care incorporates the physical, emotional, and spiritual needs of each client. The program strives to create an environment which promotes the dignity of all participating and to develop services maximizing clients' self-determination. Exodus Recovery, Inc. has been an LA County DMH contractor since 1996.

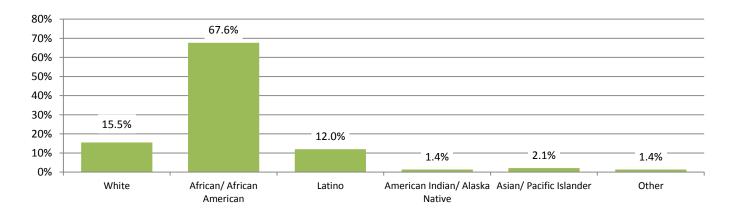
## ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS

To date, Exodus Recovery, Inc. has enrolled 142 clients. Of these, 54 (38.0%) have been discharged from the program for any reason.

Exodus Recovery, Inc. clients are most likely to be between the ages of 48 to 59 (52.8%). Over half of clients are male (64.1%).

Exodus Recovery, Inc. clients are most likely to identify as African/ African American (67.6%), followed by White (15.5%).





## **MENTAL HEALTH OUTCOMES**

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome

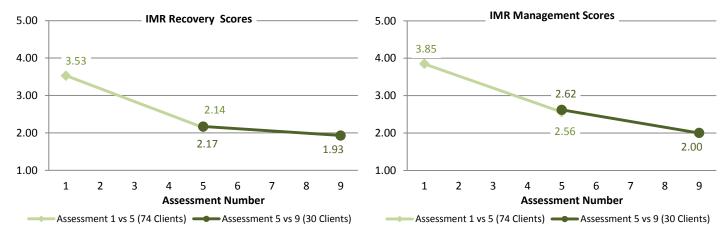
measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

## Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across all Exodus Recovery, Inc. clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months and from twelve months to twenty-four months. On the Recovery and Management scales respectively, 97.3% and 90.5% of clients had a clinically meaningful improvement from baseline to twelve months, and 50.0% and 73.3% from twelve to twenty-four months. This indicates that, on average, Exodus Recovery, Inc. clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first two years after enrolling in services.



## Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months, and from twelve to twenty-four months. Most clients had a clinically meaningful increase in MORS scores from baseline to twelve months (90.5%) and from twelve to twenty-four months (62.1%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first two years of services.

Milestones of Recovery (MORS) Ratings						
		Assessme	ent 1 vs. 5	Assessment 5 vs.9		
Rating	Stage of Recovery	(74 Cl	ients)	(29 Cl	lients)	
1	Extreme Risk	0.0%	0.0%	0.0%	0.0%	
2	High Risk/Not Engaged	5.4%	0.0%	0.0%	0.0%	
3	High Risk/Engaged	87.8%	6.8%	6.9%	0.0%	
4	Poorly Coping/Not Engaged	1.4%	8.1%	6.9%	0.0%	
5	Poorly Coping/Engaged	5.4%	54.1%	62.1%	44.8%	
6	Coping/Rehabilitating	0.0%	28.4%	24.1%	31.0%	
7	Early Recovery	0.0%	2.7%	0.0%	24.1%	
8	Advanced Recovery	0.0%	0.0%	0.0%	0.0%	

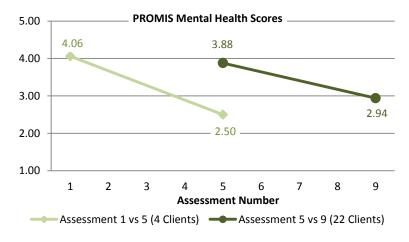
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, at the baseline assessment, 93.2% of clients were engaged based on their MORS score. There was no significant change in engagement by the twelve month assessment (91.9% engaged); by the twenty-four month assessment 100% of clients were engaged.

## Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores were significantly reduced from baseline to twelve months, and from twelve to twenty-four months. This indicates that clients had improved mental health after participating in IMHT. All of the clients had a clinically meaningful improvement from baseline to twelve months (with a matched sample of 4 clients). From twelve to twenty-four months, 63.6% of clients had a clinically meaningful improvement.



## **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Strengths and the Memory/Cognitive Impairment scales did not change significantly from the baseline to the twelve month assessment, although scores on the Psychosis subscale significantly improved. From the twelve to the twenty-four month assessment, there was a significant improvement on all three subscales. From baseline to twelve months, many clients maintained a healthy score or had a clinically meaningful improvement in their Psychosis (100%), Memory/Cognitive Impairment (75.0%) or Strengths (50.0%) scales. Clients also maintained healthy scores or had a clinically meaningful improvement from twelve to twenty-four months after enrollment on the Psychosis (65.2%), Memory/Cognitive Impairment (69.6%) or Strengths (65.2%) scales. This indicates that, on average, Exodus Recovery, Inc. clients reported improved resiliency, fewer symptoms of psychosis, and improved memory two years after enrolling in services.

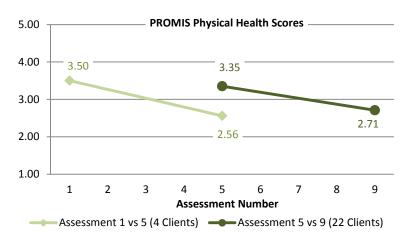


## PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

## PROMIS Global Health – Physical **Health Scale**

PROMIS Physical Health scores significantly improved from the twelve to the twenty-four month assessment, but did not significantly change from the baseline to the twelve month assessment. This indicates overall improvements in clients' physical health during the second year of services. Clinically meaningful improvement in physical health was seen for 75.0% of Exodus Recovery, Inc. clients from baseline to twelve months (with only 4 clients), and



63.6% from twelve to twenty-four months. The low matched sample from baseline to twelve months is likely why there were not significant improvements in physical health at both time points.

## **Physical Health Indicators**

Clinicians completed the Physical Health Indicators survey, by recording the frequency and outcome of typical health screening procedures, including: height, weight, blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first twenty-four months of their enrollment in INN services.

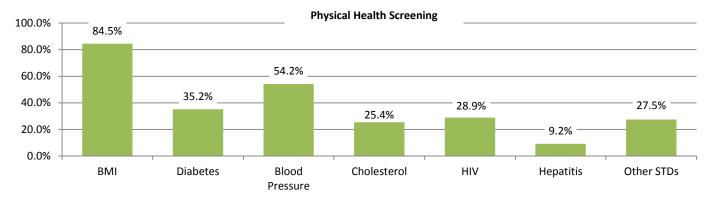


Chart provides the percentage of all Exodus Recovery, Inc. clients who have ever been screened for the above health conditions within 24 months since enrolling in Innovation services. All current and discharged Exodus Recovery, Inc. clients are included in the calculation of percentages, N=142.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment or from twelve to twenty-four months. However, some clients had a clinically meaningful improvement in BMI from baseline to twelve months (11.8%) and from twelve to twenty-four months (4.0%). Other clients maintained a healthy BMI during the same time periods (22.1%, 20.0% respectively).

Body Mass Index (BMI) Categorization						
Assessment #	Underweight	Normal Weight	Overweight	Obese		
Matched Sample Asse	essment 1 vs. 5 (68	Clients)				
1	1.5%	32.4%	27.9%	38.2%		
5	1.5%	29.4%	29.4%	39.7%		
Matched Sample Asse	essment 5 vs. 9 (25	Clients)				
5	0.0%	20.0%	20.0%	60.0%		
9	0.0%	24.0%	12.0%	64.0%		

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment or from twelve to twenty-four months. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (24.7%) and from twelve to twenty-four months (30.0%). Other clients maintained a healthy blood pressure during the same time periods (16.9%, 13.3% respectively).

	Blood Pressure Categorization						
Assessment #	Normal	Pre- Hypertension	Stage 1 Hypertension	Stage 2 Hypertension	Hypertensive Crisis		
Matched Sample	Assessment 1 vs. 5 (	77 Clients)					
1	36.4%	40.3%	15.6%	5.2%	2.6%		
5	24.7%	48.1%	20.8%	6.5%	0.0%		
Matched Sample	Matched Sample Assessment 5 vs.9 (30 Clients)						
5	26.7%	36.7%	23.3%	13.3%	0.0%		
9	30.0%	30.0%	40.0%	0.0%	0.0%		

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk categorization based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was a significant increase in risk for diabetes risk from the baseline to the twelve month assessment, and no significant change from the twelve to twenty-four month assessment. However, some clients had a clinically meaningful reduction in risk from baseline to twelve months (10.3%) and from twelve to twenty-four months (11.1%). Other clients maintained healthy A1C and glucose levels during the same time periods (28.2%, 22.2% respectively).

	Diabetes Categorization					
	Low Blood Sugar	Normal	High Normal	Pre-Diabetic	Diabetic	
Matched Sample	Assessment 1 vs. 5	(39 Clients)				
1	2.6%	35.9%	12.8%	12.8%	35.9%	
5	0.0%	25.6%	12.8%	20.5%	41.0%	
Matched Sample	Matched Sample Assessment 5 vs. 9 (9 Clients)					
5	0.0%	11.1%	11.1%	22.2%	55.6%	
9	0.0%	11.1%	22.2%	0.0%	66.7%	

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve month assessment or from the twelve to twenty-four month assessment. However, some clients had a clinically meaningful improvement in heart disease risk from baseline to twelve months (21.1%) and from twelve to twenty-four months (16.7%). Other clients maintained healthy cholesterol levels during the same time periods (15.8%, 33.3% respectively).

Cholesterol Categorization							
	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk		
Matched Sample	Assessment 1 vs. 5	(19 Clients)					
1	10.5%	21.1%	15.8%	42.1%	10.5%		
5	10.5%	15.8%	10.5%	57.9%	5.3%		
Matched Sample	Matched Sample Assessment 5 vs. 9 (6 Clients)						
5	33.3%	16.7%	0.0%	50.0%	0.0%		
9	16.7%	33.3%	0.0%	50.0%	0.0%		

#### **SUBSTANCE USE**

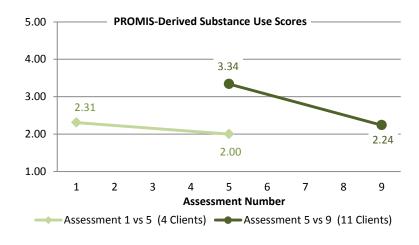
Changes in clients' substance use were assessed using client report of as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale, and the IMR Substance Use Scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use

There was a significant reduction on the PROMIS-Derived Substance Use ratings from the twelve to the twenty-four month assessment, but not from the baseline to the twelve month assessment. Twelve months after enrollment, 50.0% of Exodus Recovery, Inc. clients had a clinically meaningful

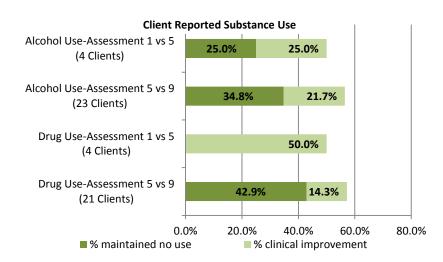


reduction in negative consequences associated with alcohol and/or drug use, and 25.0% maintained a healthy score. Compared to the twelve month assessment, at the twenty-four month assessment, 63.6% of Exodus Recovery, Inc. clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or drug use, and 18.2% maintained a healthy score.

## **Client Reported Substance Use Items**

Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey.

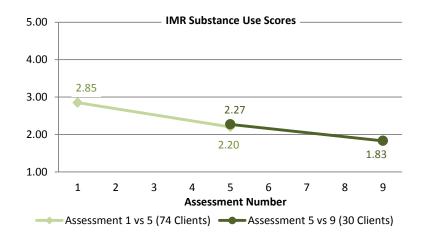
There were no significant changes in alcohol consumption or illicit drug use among Exodus Recovery, Inc. clients from the baseline to the twelve month assessment or from the twelve to the twenty-four month assessment. Some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (25.0%) and from twelve to twenty-four months (21.7%). Other clients maintained no alcohol use from



baseline to twelve months (25.0%) and from twelve to twenty-four months (34.8%). Some clients also had a clinically meaningful reduction in drug use from baseline to twelve months (50.0%) and from twelve to twenty-four months (14.3%). No clients maintained no substance use from baseline to twelve months, but 42.9% maintained no substance use from twelve to twenty-four months.

## **Clinician Reported Substance Use: IMR Substance Use Subscale**

Exodus Recovery, Inc. clients with matched assessments had a significant decrease in IMR Substance Use scores from baseline to twelve months and from twelve to twenty-four months. From baseline to twelve months and from twelve to twenty-four months many clients had a clinically meaningful reduction in substance use scores (48.6%, 40.0% respectively). This indicates that, on average, drugs and alcohol were less likely to impact the lives of clients.



## **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on incarcerations, client and clinician report of emergency services, constructive activities such as employment, volunteer work, enrollment in school, housing, housing retention, and mental health stigma. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments included those with: no emergency service use, no mental health stigma, or current employment.

#### **Incarcerations**

There were no significant changes in incarcerations from baseline to twelve months or from twelve to twenty-four months. From baseline to twelve months and from twelve to twenty-four months, no clients reduced the number of incarcerations. During the same time periods, 66.7% and 91.3% maintained no incarcerations, respectively.

Client Reported Incarcerations						
	During the past 6	months, how many	times were you se	nt to jail or prison?		
	None	1-3 times	4-6 times	7-10 times	More than 10 times	
Matched Sample	Assessment 1 vs. 5	(3 Clients)				
1	100.0%	0.0%	0.0%	0.0%	0.0%	
5	66.7%	33.3%	0.0%	0.0%	0.0%	
Matched Sample	Matched Sample Assessment 5 vs. 9 (23 Clients)					
5	100.0%	0.0%	0.0%	0.0%	0.0%	
9	91.3%	8.7%	0.0%	0.0%	0.0%	

#### **Emergency Services**

#### **Client Report**

There were no significant changes in ER visits from baseline to twelve months or from twelve to twenty-four months. From baseline to twelve months 66.7% reduced the number of visits and from twelve to twenty-four months 26.1% reduced the number of visits. During the same time periods, 33.3% and 65.2% maintained no ER visits, respectively.

Client Reported Emergency Service Use						
	During the past 6 m	onths, how many t	imes did you go to a	an emergency room	1?	
	None	1-3 times	4-6 times	7-10 times	More than 10 times	
Matched Sample	Assessment 1 vs. 5	(3 Clients)				
1	33.3%	0.0%	0.0%	33.3%	33.3%	
5	100.0%	0.0%	0.0%	0.0%	0.0%	
Matched Sample	Matched Sample Assessment 5 vs. 9 (23 Clients)					
5	73.9%	21.7%	4.3%	0.0%	0.0%	
9	91.3%	8.7%	0.0%	0.0%	0.0%	

#### Clinician Report

There were significantly fewer hospitalizations at twelve months compared to baseline, and at twenty-four months compared to twelve months. From baseline to twelve months, 75.7% of clients reduced the number of hospitalizations and from twelve to twenty-four months 16.7% reduced the number of hospitalizations. During the same time periods, 18.9% and 80.0% maintained no hospitalizations, respectively.

	Psychiatric Hospitalization					
When is	the last time s/he h	as been hospitalize	d for mental health	or substance abus	e reasons?	
	None in the past year	In the past 7-12 months	In the past 4-6 months	In the past 2-3 months	Within the last month	
Matched Sample	Assessment 1 vs. 5	(74 Clients)				
1	21.6%	8.1%	14.9%	29.7%	25.7%	
5	82.4%	5.4%	5.4%	4.1%	2.7%	
Matched Sample	Matched Sample Assessment 5 vs. 9 (30 Clients)					
5	83.3%	3.3%	6.7%	3.3%	3.3%	
9	93.3%	3.3%	3.3%	0.0%	0.0%	

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. Few Exodus Recovery, Inc. clients reported engaging in these activities on the baseline assessment. There were no significant changes in engagement in these activities from baseline to twelve months or from twelve to twenty-four months. From baseline to twelve months, 25.0% of clients began one of these activities and from twelve to twenty-four months 17.4% began one of these activities.

Constructive Activities					
	Percentage of clients who maintained or began the activit				
	Assessment 1 vs. 5 Assessment 5				
Employment	0.0% (N=4)	8.7% (N=23)			
Volunteer	0.0% (N=4)	4.3% (N=23)			
School	25.0% (N=4)	4.3% (N=23)			
Any Activity	25.0% (N=4)	17.4% (N=23)			

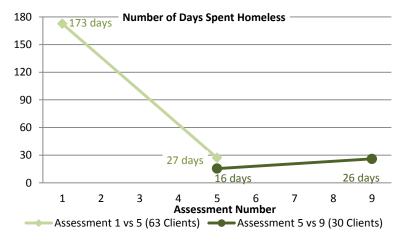
## Housing

The IMHT programs were designed as a housing first approach, so a reduction in the number of days homeless was an important goal. Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client

was homeless in the prior six months.

At baseline, almost all Exodus Recovery, Inc. clients (90.7%) were chronically homeless (defined as being homeless for at least four of the previous six months). Homelessness significantly decreased from baseline to twelve months but not from twelve to twenty-four months. From baseline to twelve months, 87.3% of clients reduced the number of days homeless.

In addition to obtaining housing for their clients, one of the goals of the IMHT programs was to help clients retain housing for at least one year. Provider-maintained datasets were used to

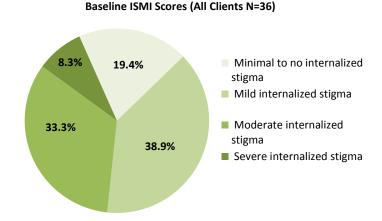


determine whether current and previous clients had maintained housing for one year. For current clients, all clients who had been in the program for at least fifteen months were included in the analysis. The fifteen month period was selected to give providers a three-month window to find housing for new clients after enrollment. For previous clients, all clients who were discharged, or deceased, prior to the one-year housing anniversary, but were housed at the time were excluded from the analysis. For Exodus Recovery, Inc., 90.2% of clients who were housed had maintained their housing for at least one year.

## Stigma

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was a significant reduction in internalized stigma ratings from twelve to twenty-four months but not from baseline to twelve months. From twelve to twenty-four months after enrollment, 77.8% of Exodus Recovery, Inc. clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings). Only one client completed the ISMI at both the baseline and twelve month assessments, so changes cannot be assessed for that time period.



#### **CLIENT SATISFACTION**

At the six month assessment, and at each subsequent semi-annual assessment, clients were randomly selected to take either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 84.2% (N=19) of Exodus Recovery, Inc. clients had high overall satisfaction, indicated by a score of four or greater. For clients with a matched sample, there was a significant increase in overall satisfaction from six to twelve months (N=10). From twelve to twenty-four months there was a large non-significant increase. The sample size and percentages reflected in the chart below reflect all clients and not just those with a matched sample.

Client Satisfaction with Services					
	Percent who re	sponded Agree o	Strongly Agree		
Exodus Recovery, Inc.	Assessment 3	Assessment 5	Assessment 9		
I was able to get all the services I thought I needed.	94.7% (N=19)	87.0% (N=23)	90.0% (N=10)		
I felt comfortable asking questions about my treatment and medication.	84.2% (N=19)	91.3% (N=23)	90.0% (N=10)		
Staff were sensitive to my cultural background (race, religion, language, etc.).	84.2% (N=19)	86.4% (N=22)	100.0% (N=10)		
This program meets both my mental and physical health care needs.	84.2% (N=19)	91.3% (N=23)	90.0% (N=10)		
My beliefs about health and well-being were considered as part of the services that I received here.	84.2% (N=19)	86.4% (N=22)	88.9% (N=9)		

## **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction Survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received

here." Over 80% of clients at each time point "Agreed" or "Strongly Agreed" with each item. Of Exodus Recovery, Inc. clients with a matched sample at the six and twelve month assessments, 88.9% (N=9) and 90.0% (N=10) respectively increased or maintained high satisfaction on these items. From twelve to twenty-four months, 100% and 87.5% of clients with a matched sample increased or maintained high satisfaction respectively (N=8).

#### Engagement

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Most clients "Agreed" or "Strongly Agreed" with this item at each time point. Of clients with a matched sample at the six and twelve month assessments, 90.0% of clients increased or maintained high satisfaction (N=10). From twelve to twenty-four months, all clients increased or maintained high satisfaction (N=8).

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Most clients "Agreed" or "Strongly Agreed" with this item at each time point. Of clients with a matched sample at the six and twelve month assessments, 90.0% of clients increased or maintained high satisfaction (N=10). From twelve to twenty-four months, 88.9% increased or maintained high satisfaction (N=9).

#### Integration

Integration was assessed using several methods, however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." Most clients "Agreed" or "Strongly Agreed" with this item at the six month assessment, and the proportion increased at the twelve and twenty-four month assessments. Of clients with a matched sample at the six and twelve month assessments, 90.0% of clients increased or maintained high satisfaction (N=10). From twelve to twenty-four months, all of the clients increased or maintained high satisfaction (N=8).

## JWCH/SCHARP/BHS

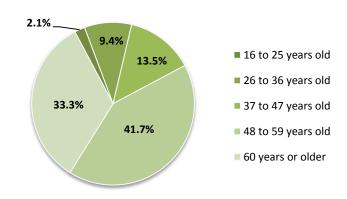
The mission of John Wesley Community Health Institute (JWCH) is to improve the health status of underserved segments of the population of Los Angeles County through the direct provision of coordination of healthcare, health education, and research. JWCH developed and integrated medical and behavioral health teams in order to serve the most chronic and vulnerable homeless people in skid row. In their clinics throughout Los Angeles County, JWCH offers primary medical care, outpatient mental health counseling, substance abuse services (including residential services for women, and women with children), and outpatient substance abuse services for men and women. JWCH's Center for Community Health in Downtown Los Angeles implemented the IMHT program, and offers medical, dental, and vision care, HIV treatment and support services, case management, mental health and substance abuse services, pharmacy, and assistance with acquiring public benefits and access to housing. JWCH has partnered with South Central Health and Rehabilitation Center (SCHARP) and Behavioral Health Services (BHS) to implement the IMHT service model.

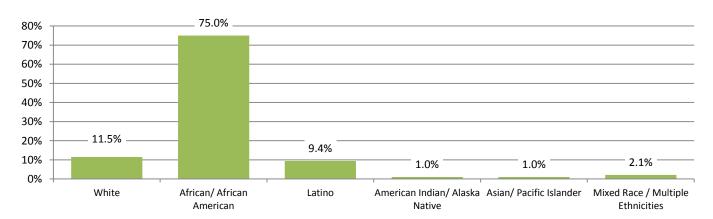
## ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS

To date, JWCH/SCHARP/BHS has enrolled 96 clients. Of these, 24 (25.0%) have been discharged from the program for any reason.

JWCH/SCHARP/BHS clients are most likely to be between the ages of 48 to 59 (41.7%). Over half of clients are male (59.4%). One client identified as male to female transgender.

JWCH/SCHARP/BHS clients are most likely to identify as African/ African American (75.0%).





## **MENTAL HEALTH OUTCOMES**

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable

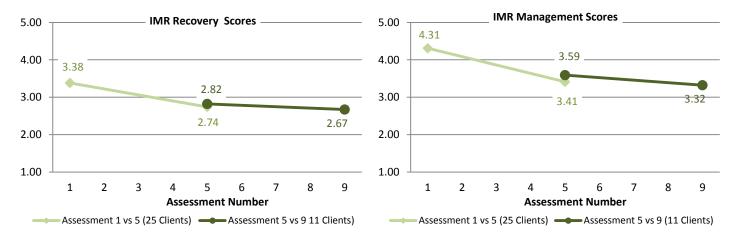
change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

## Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across all JWCH/SCHARP/BHS clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months, but not from twelve months to twenty-four months. On the Recovery and Management scales respectively, 68.0% and 72.0% of clients had a clinically meaningful improvement from baseline to twelve months, and 36.4% and 36.4% from twelve to twenty-four months. This indicates that, on average, JWCH/SCHARP/BHS clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first two years after enrolling in services.



## Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months, but not from twelve to twenty-four months. Many clients had a clinically meaningful increase in MORS scores from baseline to twelve months (78.6%) and from twelve to twenty-four months (30.0%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first two years of services.

	Milestones of Recovery (MORS) Ratings						
Rating	Stage of Recovery	Assessment 1 vs. 5 (14 Clients)		Assessment 5 vs.9 (10 Clients)			
1	Extreme Risk	0.0%	0.0%	0.0%	0.0%		
2	High Risk/Not Engaged	21.4%	7.1%	0.0%	0.0%		
3	High Risk/Engaged	35.7%	14.3%	0.0%	0.0%		
4	Poorly Coping/Not Engaged	7.1%	7.1%	0.0%	0.0%		
5	Poorly Coping/Engaged	28.6%	28.6%	30.0%	10.0%		
6	Coping/Rehabilitating	7.1%	35.7%	50.0%	70.0%		
7	Early Recovery	0.0%	7.1%	20.0%	20.0%		
8	Advanced Recovery	0.0%	0.0%	0.0%	0.0%		

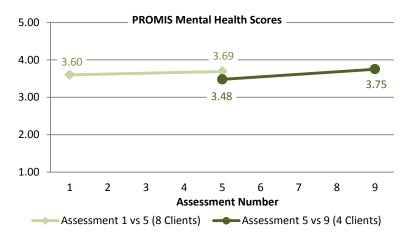
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, at the baseline assessment, 71.4% of clients were engaged based on their MORS score. At the twelve month assessment, more clients had become engaged (85.7%), and from the twelve to the twenty-four month assessment all of the clients were engaged.

## Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

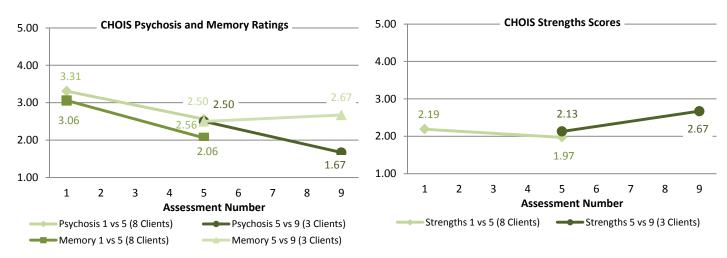
PROMIS Mental Health subscale scores did not significantly change twelve months or twenty-four after enrollment, however many clients had a clinically meaningful improvement from baseline to twelve months (50.0%) and from twelve to twentyfour months (25.0%).



## **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis, and Memory/Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales were significantly reduced from the baseline to the twelve month assessment, and scores on the Psychosis scale were significantly reduced from the twelve to the twenty-four month assessment. There were no significant changes on the Strengths subscale. This indicates that, on average, JWCH/SCHARP/BHS clients reported fewer symptoms of psychosis, and less memory impairment two years after enrolling in services. Many clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment (75.0%, 87.50% respectively) and from twelve to twenty-four months after enrollment (100.0%, 33.3% respectively). Many clients also maintained healthy scores or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (65.2%), but none from twelve to twenty-four months after enrollment.



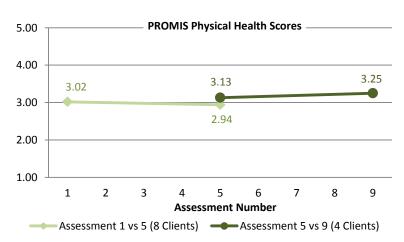
#### PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

## **PROMIS Global Health – Physical Health Scale**

PROMIS Physical Health scores did not significantly change from the baseline to the twelve month assessment or from the twelve to the twenty-four month assessment.

Clinically meaningful improvement in physical health was seen for 50.0% of JWCH/SCHARP/BHS clients from baseline to twelve months, and 25.0% from twelve to twenty-four months.



#### **Physical Health Indicators**

Clinicians completed the Physical Health Indicators survey, by recording the frequency and outcome of typical health screening procedures, including: height, weight, blood pressure, cholesterol, and chronic medical conditions.

#### Health Screening

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first twenty-four months of their enrollment in INN services.

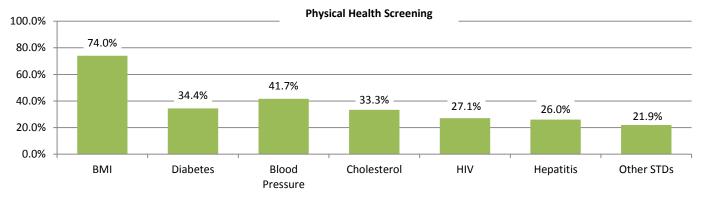


Chart provides the percentage of all JWCH/SHARP/BHS clients who have ever been screened for the above health conditions within 24 months since enrolling in Innovation services. All current and discharged JWCH/SHARP/BHS clients are included in the calculation of percentages, N=96.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment. However, some clients had a clinically meaningful improvement in BMI from baseline to twelve months (25.0%), and other clients maintained a healthy BMI during this time (18.8%). There was not enough data to analyze change from twelve to twenty-four months.

Body Mass Index (BMI) Categorization							
Assessment # Underweight Normal Weight Overweight Obese							
Matched Sample Assessment 1 vs. 5 (16 Clients)							
1	0.0%	37.5%	31.3%	31.3%			
5	6.3%	25.0%	37.5%	31.3%			

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was a significant increase in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. No clients had a clinically meaningful reduction in blood pressure, but some clients maintained a healthy blood pressure during this time (20.0%). There was not enough data to analyze change from twelve to twenty-four months.

Blood Pressure Categorization					
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis					
Matched Sample Assessment 1 vs. 5 (10 Clients)					
1	40.0%	40.0%	20.0%	0.0%	0.0%
5	20.0%	40.0%	20.0%	20.0%	0.0%

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk categorization based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no change in diabetes risk from the baseline to the twelve month assessment. No clients had a clinically meaningful improvement in diabetes risk from baseline to twelve months, but some clients maintained healthy A1C and glucose levels during this time (25.0%). There was not enough data to analyze change from twelve to twenty-four months.

Diabetes Categorization					
Low Blood Sugar Normal High Normal Pre-Diabetic Diabetic					
Matched Sample	Matched Sample Assessment 1 vs. 5 (4 Clients)				
1	0.0%	25.0%	0.0%	50.0%	25.0%
5	0.0%	25.0%	0.0%	50.0%	25.0%

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no change in risk for heart disease from the baseline to the twelve month assessment. No clients had a clinically meaningful improvement in heart disease risk from baseline to twelve months, but 100% of clients maintained healthy cholesterol levels during this time. There was not enough data to analyze change from twelve to twenty-four months.

Cholesterol Categorization					
	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk
Matched Sample	Assessment 1 vs. 5	(4 Clients)			
1	75.0%	25.0%	0.0%	0.0%	0.0%
5	75.0%	25.0%	0.0%	0.0%	0.0%

## **SUBSTANCE USE**

Changes in clients' substance use were assessed using client self-report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and drugs affect their client. Improvement in substance use was assessed by using statistical

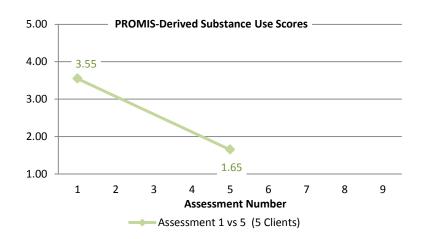
significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or substance use

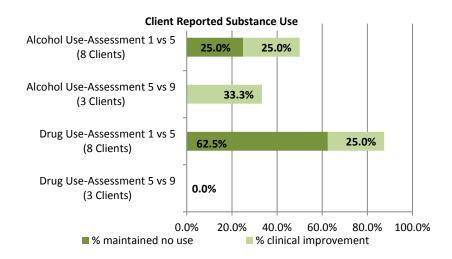
There was a significant reduction in PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment. Twelve months after enrollment, 80.0% of JWCH/SCHARP/BHS clients had a clinically meaningful reduction in negative consequences associated with alcohol



and/or drug use. There was not enough data to analyze change from twelve to twenty-four months.

## **Client Reported Substance Use Items**

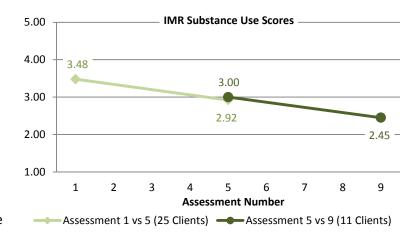
Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey. There were no significant changes in alcohol consumption or illicit substance use among JWCH/SCHARP/BHS clients from the baseline to the twelve month assessment or from the twelve to the twenty-four month assessment. Some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (25.0%) and from twelve to twenty-four months (33.3%). Other clients maintained no alcohol use from baseline to twelve months (25.0%). Some



clients had a clinically meaningful reduction in substance use from baseline to twelve months (25.0%), and other clients maintained no substance use from baseline to twelve months (62.5%). No clients maintained low substance use or reduced their substance use from twelve to twenty-four months.

## **Clinician Reported Substance** Use: IMR Substance Use Subscale

JWCH/SCHARP/BHS clients with matched assessments had a significant decrease in IMR Substance Use scores from baseline to twelve months, but not from twelve to twenty-four months. From baseline to twelve months and from twelve to twenty-four months many clients had a clinically meaningful reduction in substance use scores (48.0%, 45.5% respectively). This indicates that, on average, drugs and alcohol were less likely to impact the lives of clients.



#### **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on incarcerations, client and clinician report of emergency services, constructive activities such as employment, volunteer work, or enrollment in school, housing, housing retention, and mental health stigma. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments included those with: no emergency service use, no mental health stigma, or current employment.

#### **Incarcerations**

There were no significant changes in incarcerations from baseline to twelve months or from twelve to twenty-four months. From baseline to twelve months and from twelve to twenty-four months, no clients reduced the number of incarcerations. During the same time periods, 87.5% and 100% maintained no incarcerations, respectively.

Client Reported Incarcerations					
	During the past 6	months, how many	times were you se	nt to jail or prison?	
	None	1-3 times	4-6 times	7-10 times	More than 10 times
Matched Sample	Assessment 1 vs. 5	(8 Clients)			
1	100.0%	0.0%	0.0%	0.0%	0.0%
5	87.5%	12.5%	0.0%	0.0%	0.0%
Matched Sample Assessment 5 vs. 9 (3 Clients)					
5	100.0%	0.0%	0.0%	0.0%	0.0%
9	100.0%	0.0%	0.0%	0.0%	0.0%

## **Emergency Services**

#### Client Report

There was a significant reduction in ER visits from baseline to twelve months, but no change from twelve to twentyfour months. From baseline to twelve months 37.5% of clients reduced the number of visits; no clients reduced their number of visits from twelve to twenty-four months. During the same time periods, 50.0% and 66.7% maintained no ER visits, respectively.

Client Reported Emergency Service Use						
ı	During the past 6 months, how many times did you go to an emergency room?					
	None	1-3 times	4-6 times	7-10 times	More than 10 times	
Matched Sample	Assessment 1 vs. 5	(8 Clients)				
1	50.0%	50.0%	0.0%	0.0%	0.0%	
5	87.5%	12.5%	0.0%	0.0%	0.0%	
Matched Sample Assessment 5 vs. 9 (3 Clients)						
5	100.0%	0.0%	0.0%	0.0%	0.0%	
9	66.7%	33.3%	0.0%	0.0%	0.0%	

#### Clinician Report

There were no significant changes in hospitalizations at twelve months compared to baseline, or at twenty-four months compared to twelve months. From baseline to twelve months, 12.0% of clients reduced the number of hospitalizations; no clients reduced the number of hospitalizations from twelve to twenty-four months. During the same time periods, 84.0% and 90.9% maintained no hospitalizations, respectively.

Psychiatric Hospitalization					
When is	the last time s/he h	as been hospitalize	d for mental health	or substance abus	e reasons?
	None in the past year	In the past 7-12 months	In the past 4-6 months	In the past 2-3 months	Within the last month
Matched Sample	Assessment 1 vs. 5	(25 Clients)			
1	88.0%	4.0%	4.0%	4.0%	0.0%
5	92.0%	4.0%	4.0%	0.0%	0.0%
Matched Sample Assessment 5 vs. 9 (11 Clients)					
5	100.0%	0.0%	0.0%	0.0%	0.0%
9	90.9%	0.0%	9.1%	0.0%	0.0%

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. Few JWCH/SCHARP/BHS clients reported engaging in these activities on the baseline assessment. There were no significant changes in engagement in these activities from baseline to twelve months or from twelve to twenty-four months. From baseline to twelve months, 12.5% of clients maintained one of these activities.

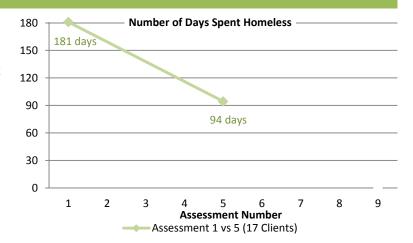
Constructive Activities					
	Percentage of clients who main	ntained or began the activity			
	Assessment 1 vs. 5	Assessment 5 vs. 9			
Employment	0.0% (N=8)	0.0% (N=3)			
Volunteer	12.5% (N=8)	0.0% (N=3)			
School	0.0% (N=8)	0.0% (N=3)			
Any Activity	12.5% (N=8)	0.0% (N=3)			

## Housing

The IMHT programs were designed as a housing first approach, so a reduction in the number of days homeless was an important goal. Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months.

At baseline, almost all JWCH/SCHARP/BHS clients (94.4%) were chronically homeless (defined as being homeless for at least four of the previous six months). Homelessness significantly decreased from baseline to twelve months. From baseline to twelve months, 47.1% of clients reduced the number of days homeless. There was not enough data to analyze change from twelve to twentyfour months.

In addition to obtaining housing for their clients, one of the goals of the IMHT programs was to help clients retain housing for at least one year. Provider-maintained datasets were used to

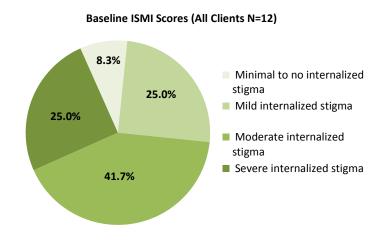


determine whether current and previous clients had maintained housing for one year. For current clients, all clients who had been in the program for at least fifteen months were included in the analysis. The fifteen month period was selected to give providers a three-month window to find housing for new clients after enrollment. For previous clients, all clients who were discharged, or deceased, prior to the one-year housing anniversary, but were housed at the time were excluded from the analysis. For JWCH/SCHARP/BHS, 68.8% of clients who were housed had maintained their housing for at least one year.

#### Stigma

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was not a large enough matched sample to analyze changes in internalized stigma ratings from baseline to twelve months or from twelve to twenty-four months.



## CLIENT SATISFACTION

At the six month assessment, and at each subsequent semi-annual assessment, clients were randomly selected to take either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, fewer than half of JWCH/SCHARP/BHS clients had high overall satisfaction (46.2%, N=13), indicated by a score of four or greater. Overall satisfaction increased to 87.5% (N=8) at the twelve month assessment, but there was not a large enough matched sample to conduct significance analyses. There

was not enough data to report satisfaction at the twenty-four month assessment. The sample size and percentages reflected in the chart below reflect all clients and not just those with a matched sample.

Client Satisfaction with Services					
	Percent who responded Agree				
	or Strongly Agree				
JWCH/SCHARP/BHS	Assessment 3	Assessment 5			
I was able to get all the services I	76.9% (N=13)	87.5% (N=8)			
thought I needed.	76.9% (N-15)	87.5% (N=8)			
I felt comfortable asking questions	84.6% (N=13)	100.0% (N=8)			
about my treatment and medication.	64.0% (N=13)	100.0% (N-6)			
Staff were sensitive to my cultural					
background (race, religion, language,	92.3% (N=13)	100.0% (N=8)			
etc.).					
This program meets both my mental	100.0% (N=13)	87.5% (N=8)			
and physical health care needs.	100.0% (N-13)	67.3% (N-6)			
My beliefs about health and well-being					
were considered as part of the services	76.9% (N=13)	87.5% (N=8)			
that I received here.					

## **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### Cultural Competency

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." Clients were more likely to Agree or Strongly Agree that staff were sensitive to their cultural background than that their beliefs about health and well-being were considered. There was not enough data to analyze change from six to twelve months or from twelve to twenty-four months.

#### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." By the twelve month assessment, all clients "Agreed" or "Strongly Agreed" with this item. There was not enough data to analyze change from six to twelve months or from twelve to twentyfour months.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item - "I was able to get all the services I thought I needed" - was used to assess this. At the six month assessment, 76.9% of clients "Agreed" or "Strongly Agreed" with this item, which increased to 87.5% by the twelve month assessment. There was not enough data to analyze change from six to twelve months or from twelve to twenty-four months.

# Integration

Integration was assessed using several methods, however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, all of the clients "Agreed" or "Strongly Agreed" with this item, which dropped slightly at the twelve month assessment. There was not enough data to analyze change from six to twelve months or from twelve to twenty-four months.

# **Mental Health America – Homeless Innovation Project**

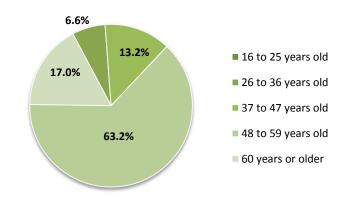
Mental Health America of Los Angeles is dedicated to promoting mental health recovery and wellness. Their purpose is to help everyone reach healthy lives – whether their need is recovery from mental illness or is occasional and caused by everyday life. The Mental Health America message is that good mental health is fundamental to the health and well-being of everyone in Los Angeles County. Founded in 1924, Mental Health America is a nonprofit organization that uses service, education, advocacy and training to create opportunities for adults and young adults with mental illness to recover to full, equal lives. Mental Health America provides integrated service programs based on a nationally recognized and replicated model, homeless assistance services, programs for at-risk veterans, and housing and community development programs.

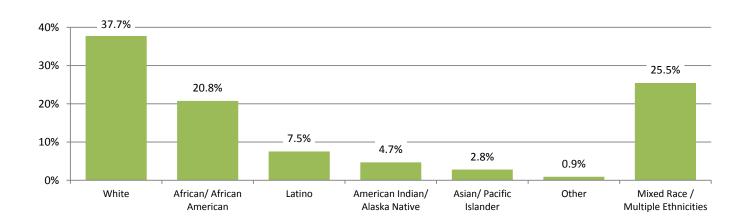
# **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, Mental Health America - HIP has enrolled 106 clients. Of these, 21 (19.8%) have been discharged from the program for any reason.

Mental Health America - HIP clients are most likely to be between the ages of 48 to 59 (63.2%). Over half of clients are male (71.9%). One client identified as male to female transgender.

Mental Health America - HIP clients are most likely to identify as White (37.3%), followed by Mixed Race/Multiple Ethnicities (25.5%).





# **MENTAL HEALTH OUTCOMES**

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important

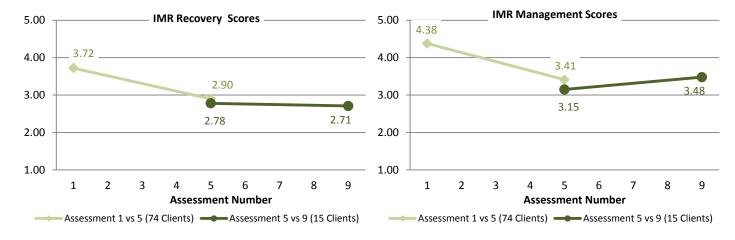
Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

# Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across all Mental Health America - HIP clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months, but not from twelve months to twenty-four months. On the Recovery and Management scales respectively, 79.7% and 73.0% of clients had a clinically meaningful improvement from baseline to twelve months, and 33.3% and 26.7% from twelve to twenty-four months. This indicates that, on average, Mental Health America - HIP clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first two years after enrolling in services.



# Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months, but not from twelve to twenty-four months. Many clients had a clinically meaningful increase in MORS scores from baseline to twelve months (75.0%) and from twelve to twenty-four months (26.7%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first two years of services.

Milestones of Recovery (MORS) Ratings						
Rating	Stage of Recovery		Assessment 1 vs. 5 (76 Clients)		ent 5 vs.9 lients)	
1	Extreme Risk	1.3%	1.3%	0.0%	0.0%	
2	High Risk/Not Engaged	1.3%	3.9%	0.0%	0.0%	
3	High Risk/Engaged	78.9%	14.5%	13.3%	6.7%	
4	Poorly Coping/Not Engaged	0.0%	0.0%	0.0%	0.0%	
5	Poorly Coping/Engaged	17.1%	48.7%	40.0%	60.0%	
6	Coping/Rehabilitating	1.3%	30.3%	46.7%	33.3%	
7	Early Recovery	0.0%	1.3%	0.0%	0.0%	
8	Advanced Recovery	0.0%	0.0%	0.0%	0.0%	

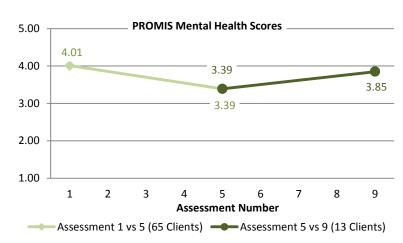
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, at the baseline assessment, 97.4% of clients were engaged based on their MORS score. At the twelve month assessment, 94.7% of clients were engaged, and from the twelve to the twenty-four month assessment all of the clients were engaged. There was a significant change from baseline to the twelve month assessment, but not at the twenty-four month assessment as all of the clients were already engaged.

# Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores were significantly reduced from baseline to twelve months indicating fewer mental health symptoms; however, scores significantly increased from twelve to twenty-four months. Many clients had a clinically meaningful improvement from baseline to twelve months (66.2%), but no clients had clinically meaningful improvement from twelve to twentyfour months.



# **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and

Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales did not change significantly from the baseline to the twelve month assessment or from the twelve to the twenty-four month assessment. However, some clients had a clinically meaningful improvement or maintained healthy Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment (64.7%, 26.2% respectively) and from twelve to twenty-four months after enrollment (69.2%, 15.4% respectively).

Across Mental Health America - HIP clients with matched assessments, there was a statistically significant improvement in CHOIS Strengths subscale scores from baseline to twelve months after enrollment, but not from twelve to twenty-four months after enrollment. This indicates that, on average, Mental Health America - HIP clients had improved resiliency two years after enrolling in services. Many clients had a clinically meaningful improvement in their Strengths subscale or maintained healthy scores twelve months after enrollment (63.0%) and from twelve to twenty-four months after enrollment (23.1%).



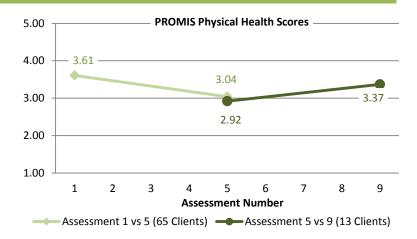
# PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# PROMIS Global Health – Physical Health Scale

There was a significant reduction in PROMIS Physical Health scores from the baseline to the twelve month assessment indicating fewer limitations due to physical health issues. However, there was a significant increase in scores from the twelve to the twenty-four month assessment.

Clinically meaningful improvement in physical health was seen for 63.1% of Mental Health America - HIP clients from baseline to twelve months, but for no clients from twelve to twentyfour months.



# **Physical Health Indicators**

Clinicians completed the Physical Health Indicators survey by recording the frequency and outcome of typical health screening procedures, including: height, weight, blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first twenty-four months of their enrollment in INN services.

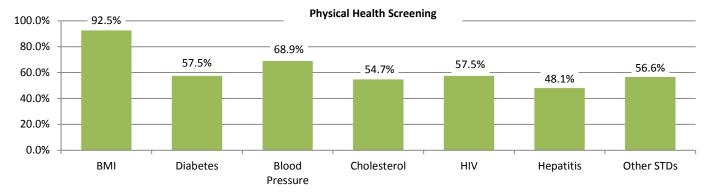


Chart provides the percentage of all MHA-HIP clients who have ever been screened for the above health conditions within 24 months since enrolling in Innovation services. All current and discharged MHA-HIP clients are included in the calculation of percentages, N=106.

# **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was a significant increase in BMI twelve months after enrollment and a significant decrease from twelve to twenty-four months. However, some clients had a clinically meaningful improvement in BMI from baseline to twelve months (3.5%) and from twelve to twenty-four months (25.0%). Other clients maintained a healthy BMI during the same time periods (31.6%, 37.5% respectively).

Body Mass Index (BMI) Categorization						
Assessment #	Underweight	Normal Weight	Overweight	Obese		
Matched Sample Asse	essment 1 vs. 5 (57	Clients)				
1	3.5%	45.6%	28.1%	22.8%		
5	1.8%	33.3%	36.8%	28.1%		
Matched Sample Assessment 5 vs. 9 (8 Clients)						
5	0.0%	37.5%	25.0%	37.5%		
9	0.0%	50.0%	37.5%	12.5%		

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings are combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment or from twelve to twenty-four months. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (19.0%) and from twelve to twenty-four months (20.0%). Other clients maintained a healthy blood pressure during the same time periods (19.0%, 40.0% respectively).

Blood Pressure Categorization						
Assessment #	Normal	Pre- Hypertension	Stage 1 Hypertension	Stage 2 Hypertension	Hypertensive Crisis	
Matched Sample	Assessment 1 vs. 5 (	63 Clients)				
1	36.5%	34.9%	19.0%	7.9%	1.6%	
5	30.2%	39.7%	19.0%	7.9%	3.2%	
Matched Sample Assessment 5 vs.9 (10 Clients)						
5	30.0%	50.0%	0.0%	10.0%	10.0%	
9	40.0%	30.0%	20.0%	10.0%	0.0%	

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk categorization based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no significant change in diabetes risk from the baseline to the twelve month assessment or from the twelve to twenty-four month assessment. Some clients had a clinically meaningful improvement in diabetes risk from baseline to twelve months (20.0%), but none from twelve to twenty-four months. Other clients maintained healthy diabetes markers during the same time periods (28.6%, 25.0% respectively).

Diabetes Categorization						
	Low Blood Sugar	Normal	High Normal	Pre-Diabetic	Diabetic	
Matched Sample	Assessment 1 vs. 5	(35 Clients)				
1	2.9%	45.7%	11.4%	25.7%	14.3%	
5	0.0%	37.1%	11.4%	40.0%	11.4%	
Matched Sample	Matched Sample Assessment 5 vs. 9 (4 Clients)					
5	0.0%	25.0%	25.0%	25.0%	25.0%	
9	0.0%	25.0%	0.0%	25.0%	50.0%	

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were collected by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve month assessment. However, some clients had a clinically meaningful improvement in heart disease risk from baseline to twelve months (16.7%), and other clients maintained healthy cholesterol levels during this time (33.3%). There was not enough data to analyze change from twelve and twenty-four month.

Cholesterol Categorization						
Near Optimal Borderline High						
	Optimal Level	Level	Risk	High Risk	Very High Risk	
Matched Sample	Assessment 1 vs. 5	(30 Clients)				
1	30.0%	26.7%	10.0%	33.3%	0.0%	
5	20.0%	30.0%	3.3%	43.3%	3.3%	

### **SUBSTANCE USE**

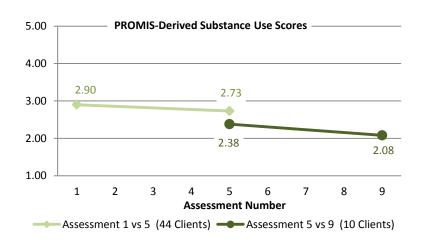
Changes in clients' substance use were assessed using client report of, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale, and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or substance use.

There were no significant changes on the PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment, or the twelve to the twenty-four month

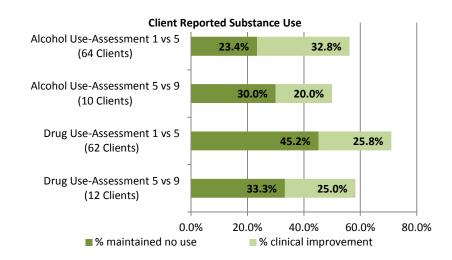


assessment. Twelve months after enrollment, 34.1% of Mental Health America - HIP clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or drug use, and 11.4% maintained a healthy score. Compared to the twelve month assessment, at the twenty-four month assessment, 10.0% of Mental Health America - HIP clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or drug use, and 30.0% maintained a healthy score.

# Client Reported Substance Use Items

Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey.

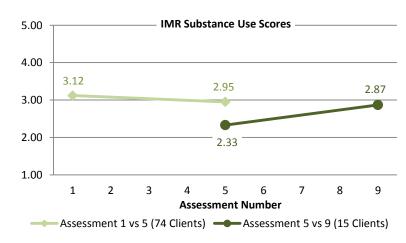
There was a significant decrease in alcohol consumption among Mental Health America - HIP clients from the baseline to the twelve month assessment, but not from twelve to twenty-four months. There were no significant changes in illicit drug use from baseline to twelve months or from twelve to twentyfour months. Some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (32.8%) and from twelve to twenty-four months



(20.0%). Other clients maintained no alcohol use from baseline to twelve months (23.4%) and from twelve to twentyfour months (30.0%). Some clients had a clinically meaningful reduction in substance use from baseline to twelve months (25.8%) and from twelve to twenty-four months (33.3%). Other clients maintained no substance use from baseline to twelve months (45.2%) and from twelve to twenty-four months (25.0%).

# **Clinician Reported Substance** Use: IMR Substance Use Subscale

There was no significant change in IMR Substance Use scores from baseline to twelve months or from twelve to twenty-four months for Mental Health America - HIP clients with matched assessments. From baseline to twelve months and from twelve to twenty-four months many had a clinically meaningful reduction in substance use scores (35.1%, 13.3% respectively).



# **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on incarcerations, client and clinician report of emergency services, constructive activities such as employment, volunteer work, or enrollment in school, housing, housing retention, and mental health stigma. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of

the evaluation period. Examples of clients with "healthy" assessments included those with: no emergency service use, no mental health stigma, or current employment.

#### **Incarcerations**

There was a significant decrease in incarcerations from baseline to twelve months, but no change from twelve to twenty-four months. From baseline to twelve months 17.5% reduced the number of incarcerations; no clients reduced the number of incarcerations from twelve to twenty-four months. During the same time periods, 74.6% and 92.3% maintained no incarcerations, respectively.

	Client Reported Incarcerations						
	During the past 6	months, how many	times were you se	nt to jail or prison?			
	None	1-3 times	4-6 times	7-10 times	More than 10 times		
Matched Sample	Assessment 1 vs. 5	(63 Clients)					
1	76.2%	22.2%	1.6%	0.0%	0.0%		
5	92.1%	7.9%	0.0%	0.0%	0.0%		
Matched Sample	Matched Sample Assessment 5 vs. 9 (13 Clients)						
5	100.0%	0.0%	0.0%	0.0%	0.0%		
9	92.3%	7.7%	0.0%	0.0%	0.0%		

# **Emergency Services**

#### **Client Report**

There was a significant decrease in ER visits from baseline to twelve months, and no change from twelve to twentyfour months. From baseline to twelve months 43.8% reduced the number of visits and from twelve to twenty-four months 7.7% reduced the number of visits. During the same time periods, 29.7% and 61.5% maintained no ER visits, respectively.

	Client Reported Emergency Service Use						
	During the past 6 m	onths, how many t	imes did you go to a	an emergency roon	1?		
	None	1-3 times	4-6 times	7-10 times	More than 10 times		
Matched Sample	Assessment 1 vs. 5	(64 Clients)					
1	31.3%	51.6%	12.5%	4.7%	0.0%		
5	65.6%	26.6%	6.3%	1.6%	0.0%		
Matched Sample	Matched Sample Assessment 5 vs. 9 (13 Clients)						
5	69.2%	30.8%	0.0%	0.0%	0.0%		
9	69.2%	30.8%	0.0%	0.0%	0.0%		

#### Clinician Report

There were significantly fewer hospitalizations at twelve months compared to baseline, but not at twenty-four months compared to twelve months. From baseline to twelve months, 20.5% of clients reduced the number of hospitalizations and from twelve to twenty-four months 6.7% reduced the number of hospitalizations. During the same time periods, 68.5% and 80.0% maintained no hospitalizations, respectively.

When is	Psychiatric Hospitalization When is the last time s/he has been hospitalized for mental health or substance abuse reasons?						
None in the In the past 7-12 In the past 4-6 In the past 2-3 Within the last past year months months months month							
Matched Sample	Assessment 1 vs. 5	(73 Clients)					
1	76.7%	5.5%	2.7%	6.8%	8.2%		
5	82.2%	6.8%	6.8%	2.7%	1.4%		
Matched Sample	Matched Sample Assessment 5 vs. 9 (15 Clients)						
5	86.7%	0.0%	13.3%	0.0%	0.0%		
9	86.7%	6.7%	0.0%	6.7%	0.0%		

#### **Constructive Activities**

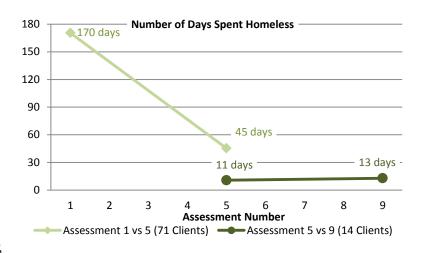
On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve months or from twelve to twenty-four months. From baseline to twelve months, 18.5% of clients began one of these activities and from twelve to twenty-four months 7.7% began one of these activities. During the same time periods, 7.7% and 23.1% maintained these activities, respectively.

Constructive Activities						
	Percentage of clients who main	ntained or began the activity				
	Assessment 1 vs. 5	Assessment 5 vs. 9				
Employment	9.4% (N=64)	15.4% (N=13)				
Volunteer	20.0% (N=65)	7.7% (N=13)				
School	3.2% (N=65)	7.7% (N=13)				
Any Activity	26.2% (N=65)	30.8% (N=13)				

# Housing

The IMHT programs were designed as a housing first approach, so a reduction in the number of days homeless was an important goal. Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months.

At baseline, almost all Mental Health America -HIP clients (94.7%) were chronically homeless (defined as being homeless for at least four of the previous six months). Homelessness significantly decreased from baseline to twelve months, but not from twelve to twenty-four months. From baseline to twelve months, 74.6% of clients reduced the number of days homeless.



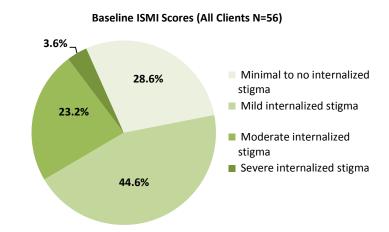
In addition to obtaining housing for their clients, one of the goals of the IMHT programs was to help clients retain housing for at least one year. Provider-maintained datasets were used to determine whether current and previous clients had maintained housing for one year. For current clients, all clients who had been in the program for at least fifteen months were included in the analysis. The fifteen month period was selected to give providers a three-month window to find housing for new clients after enrollment. For previous clients, all clients who were discharged, or

deceased prior to the one-year housing anniversary, but were housed at the time, were excluded from the analysis. For Mental Health America - HIP, 69.4% of clients who were housed had maintained their housing for at least one year.

### Stigma

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There were no significant changes in internalized stigma ratings from baseline to twelve months or



from twelve to twenty-four months. However, some clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) from baseline to twelve months (23.5%) and from twelve to twenty-four months (20.0%).

### **CLIENT SATISFACTION**

At the six month assessment, and at each subsequent semi-annual assessment, clients were randomly selected to take either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 72.7% (N=22) of Mental Health America - HIP clients had high overall satisfaction, indicated by a score of 4 or greater. For clients with a matched sample, there were no significant changes from six to twelve months (N=18) or from twelve to twenty-four months (N=5). The sample size and percentages reflected in the chart below reflect all clients and not just those with a matched sample.

Client Satisfaction with Services						
	Percent who res	sponded Agree or	Strongly Agree			
MHALA - HIP	Assessment 3	Assessment 5	Assessment 9			
I was able to get all the services I thought I needed.	72.7% (N=22)	100.0% (N=19)	80.0% (N=5)			
I felt comfortable asking questions about my treatment and medication.	95.5% (N=22)	94.7% (N=19)	80.0% (N=5)			
Staff were sensitive to my cultural background (race, religion, language, etc.).	90.5% (N=21)	84.2% (N=19)	80.0% (N=5)			
This program meets both my mental and physical health care needs.	90.5% (N=21)	89.5% (N=19)	80.0% (N=5)			
My beliefs about health and well-being were considered as part of the services that I received here.	95.5% (N=22)	89.5% (N=19)	80.0% (N=5)			

# **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." Most clients "Agreed" or "Strongly Agreed" with these items at each time point, with the greatest endorsement at the six month assessment. Of Mental Health America - HIP clients with a matched sample at the six and twelve month assessments, 83.3% and 88.9% respectively increased or maintained high satisfaction on these items (N=18). From twelve to twenty-four months, all clients with a matched sample increased or maintained high satisfaction (N=4).

#### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Most clients "Agreed" or "Strongly Agreed" with these items at each time point, with the greatest endorsement at the six month assessment. Of clients with a matched sample at the six and twelve month assessments, 94.4% of clients increased or maintained high satisfaction (N=18). From twelve to twenty-four months, all clients increased or maintained high satisfaction (N=4).

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. There was a large increase in the proportion of clients who "Agreed" or "Strongly Agreed" from the six month to the twelve month assessment. Of clients with a matched sample at the six and twelve month assessments, all of the clients increased or maintained high satisfaction (N=18). From twelve to twenty-four months, 80.0% increased or maintained high satisfaction (N=5).

### Integration

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." Responses to this item remained high on the six and twelve month assessments. Of clients with a matched sample at the six and twelve month assessments, 88.9% increased or maintained high satisfaction (N=18). From twelve to twenty-four months, all of the clients increased or maintained high satisfaction (N=4).

# St. Joseph Center/OPCC

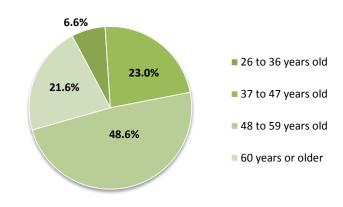
The mission of St. Joseph Center is to provide working-poor families, as well as homeless men, women and children of all ages, with the resources and tools to become productive, stable and self-supporting members of the community. St. Joseph Center takes a comprehensive view of the challenges that poverty and homelessness create for people, integrating many services into long-term solutions that provide the advantage of sustainable change for more than six thousand men, women, and children annually. In addition to case management and targeted mental health outreach and treatment, St. Joseph Center provides services including housing assistance, job training and referrals to improve employment situations, child care and family recreational activities, a food pantry and free restaurant, and assistance with managing money. St. Joseph Center has partnered with Ocean Park Community Center (OPCC) to implement the IMHT service model.

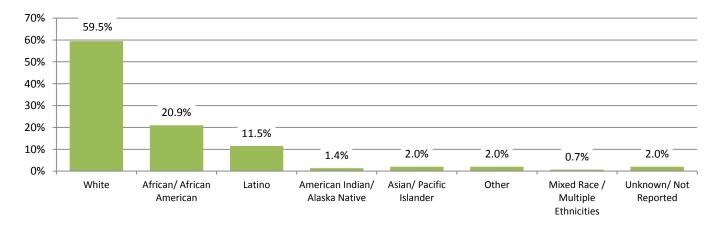
# **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, St. Joseph Center/OPCC has enrolled 148 clients. Of these, 50 (33.8%) have been discharged from the program for any reason.

St. Joseph Center/OPCC clients are most likely to be between the ages of 48 to 59 (48.6%). Over half of clients are male (64.9%).

St. Joseph Center/OPCC clients are most likely to identify as White (59.5%), followed by African/ African American (20.9%).





# **MENTAL HEALTH OUTCOMES**

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that

#### outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

# Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across all St. Joseph Center/OPCC clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months and from twelve months to twentyfour months. On the Recovery and Management scales respectively, 77.5% and 55.0% of clients had a clinically meaningful improvement from baseline to twelve months, and 47.8% and 60.9% from twelve to twenty-four months. This indicates that, on average, St. Joseph Center/OPCC clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first two years after enrolling in services.



# Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months, but not from twelve to twenty-four months. Many clients had a clinically meaningful increase in MORS scores from baseline to twelve months (59.0%) and from twelve to twenty-four months (40.9%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first two years of services.

Milestones of Recovery (MORS) Ratings						
Rating	Stage of Recovery		ent 1 vs. 5 ients)	Assessment 5 vs.9 (22 Clients)		
Nating	Stage of Recovery	(33 C	ientsj	(22 C	iciicaj	
1	Extreme Risk	17.9%	5.1%	9.1%	4.5%	
2	High Risk/Not Engaged	10.3%	5.1%	0.0%	0.0%	
3	High Risk/Engaged	20.5%	25.6%	22.7%	13.6%	
4	Poorly Coping/Not Engaged	12.8%	2.6%	4.5%	9.1%	
5	Poorly Coping/Engaged	35.9%	30.8%	50.0%	45.5%	
6	Coping/Rehabilitating	2.6%	30.8%	13.6%	22.7%	
7	Early Recovery	0.0%	0.0%	0.0%	4.5%	
8	Advanced Recovery	0.0%	0.0%	0.0%	0.0%	

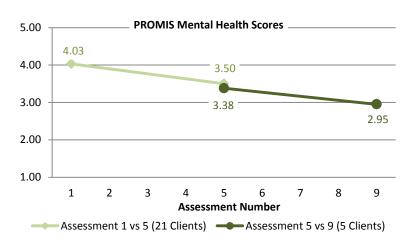
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, at the baseline assessment, 59.0% of clients were engaged based on their MORS score. At the twelve month assessment, significantly more clients had become engaged (87.2%). There was no change in engagement from the twelve to the twenty-four month assessment.

# Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) - 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

### PROMIS Global Health - Mental Health Subscale

There was a significant reduction in PROMIS Mental Health subscale scores from baseline to twelve months, but not from twelve to twenty-four months. This indicates that clients had fewer mental health symptoms after a year of services. Many clients had a clinically meaningful improvement from baseline to twelve months (52.4%) and from twelve to twenty-four months (40.0%).

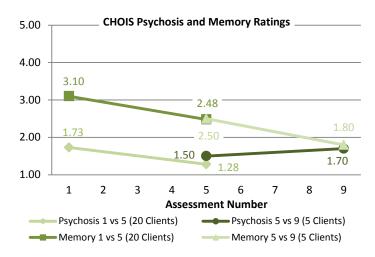


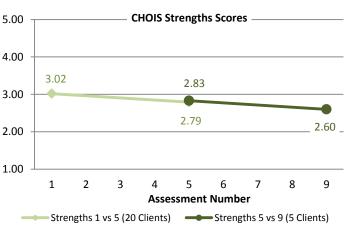
# Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and

Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales were significantly reduced from the baseline to the twelve month assessment, but not from the twelve to the twenty-four month assessment. There was no significant change in CHOIS Strengths subscale scores from baseline to twelve months after enrollment or from twelve to twenty-four months after enrollment. Many clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment (95.0%, 50.0% respectively) and from twelve to twenty-four months after enrollment (60.0% each). This indicates that, on average, St. Joseph Center/OPCC clients reported less psychosis and memory impairment two years after enrolling in services. Many clients also maintained healthy scores or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (50.0%) and from twelve to twenty-four months after enrollment (20.0%).





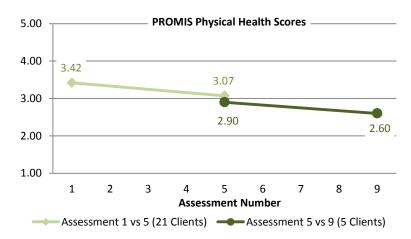
# PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex.

Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# **PROMIS Global Health – Physical Health Scale**

PROMIS Physical Health scores did not significantly change from the baseline to the twelve month



assessment or from the twelve to the twenty-four month assessment. Clinically meaningful improvement in physical health was seen for 57.1% of St. Joseph Center/OPCC clients from baseline to twelve months, and 60.0% from twelve to twenty-four months.

# **Physical Health Indicators**

Clinicians completed the Physical Health Indicators survey by recording the frequency and outcome of typical health screening procedures, including: height, weight, blood pressure, cholesterol, and chronic medical conditions.

#### Health Screening

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first twenty-four months of their enrollment in INN services.

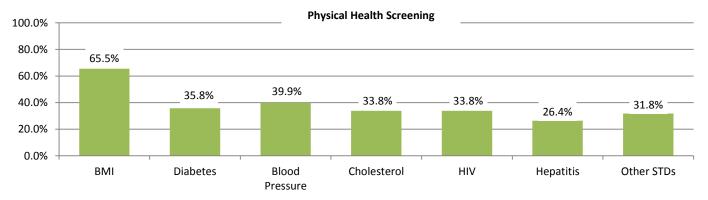


Chart provides the percentage of all St. Joseph Center/OPCC clients who have ever been screened for the above health conditions within 24 months since enrolling in Innovation services. All current and discharged St. Joseph Center/OPCC clients are included in the calculation of percentages, N=148.

### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment or from twelve to twenty-four months. Some clients had a clinically meaningful improvement in BMI from baseline to twelve months (15.0%), but no clients improved from twelve to twenty-four months. Many clients maintained a healthy BMI during the same time periods (40.0%, 50.0% respectively).

Body Mass Index (BMI) Categorization						
Assessment #	Underweight	Normal Weight	Overweight	Obese		
Matched Sample Asse	essment 1 vs. 5 (20	Clients)				
1	5.0%	45.0%	15.0%	35.0%		
5	0.0%	50.0%	20.0%	30.0%		
Matched Sample Assessment 5 vs. 9 (8 Clients)						
5	0.0%	62.5%	37.5%	0.0%		
9	12.5%	50.0%	37.5%	0.0%		

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the

American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment or from twelve to twenty-four months. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (22.5%) and from twelve to twenty-four months (26.3%). Other clients maintained a healthy blood pressure during the same time periods (17.5%, 21.1% respectively).

Blood Pressure Categorization						
Assessment #	Normal	Pre- Hypertension	Stage 1 Hypertension	Stage 2 Hypertension	Hypertensive Crisis	
Matched Sample	Assessment 1 vs. 5 (	40 Clients)				
1	37.5%	32.5%	12.5%	10.0%	7.5%	
5	30.0%	50.0%	12.5%	5.0%	2.5%	
Matched Sample Assessment 5 vs.9 (19 Clients)						
5	31.6%	47.4%	15.8%	5.3%	0.0%	
9	47.4%	26.3%	21.1%	5.3%	0.0%	

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was a significant reduction in diabetes risk from the baseline to the twelve month assessment, but not from the twelve to twenty-four month assessment. Additionally, some clients had a clinically meaningful improvement in diabetes risk from baseline to twelve months (18.2%) and from twelve to twenty-four months (7.1%). Other clients maintained healthy A1C and glucose levels during the same time periods (45.5%, 78.6% respectively).

Diabetes Categorization							
	Low Blood Sugar	Normal	High Normal	Pre-Diabetic	Diabetic		
Matched Sample	Matched Sample Assessment 1 vs. 5 (33 Clients)						
1	0.0%	45.5%	12.1%	30.3%	12.1%		
5	0.0%	60.6%	3.0%	24.2%	12.1%		
Matched Sample Assessment 5 vs. 9 (14 Clients)							
5	0.0%	78.6%	7.1%	14.3%	0.0%		
9	0.0%	85.7%	0.0%	14.3%	0.0%		

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were collected from clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve month assessment, and there was a significant increase in risk from the twelve to twenty-four month assessment. Some clients had a clinically meaningful improvement in heart disease risk from baseline to twelve months (15.2%) but no clients improved from twelve to twenty-four months. Many clients maintained healthy cholesterol levels during the same time periods (60.6%, 58.3% respectively).

Cholesterol Categorization						
	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk	
Matched Sample	Assessment 1 vs. 5	(33 Clients)				
1	42.4%	30.3%	9.1%	15.2%	3.0%	
5	33.3%	36.4%	12.1%	18.2 %	0.0%	
Matched Sample Assessment 5 vs. 9 (12 Clients)						
5	41.7%	41.7%	8.3%	8.3%	0.0%	
9	41.7%	16.7%	0.0%	41.7%	0.0%	

### **SUBSTANCE USE**

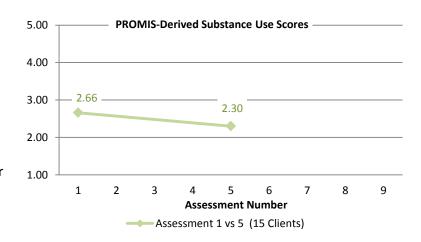
Changes in clients' substance use were assessed using client self-report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale, and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

There were no significant changes on the PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment. Twelve months after enrollment, 46.7% of St. Joseph Center/OPCC clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or drug use, and 20.0% maintained a healthy

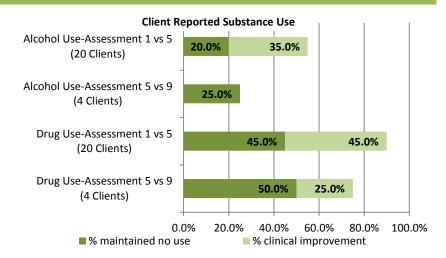


score. There was not enough data to analyze change from twelve to twenty-four months.

# Client Reported Substance Use

Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey.

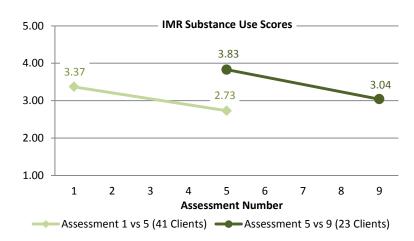
There were no significant changes in alcohol consumption among St. Joseph Center/OPCC clients from the baseline to the twelve month assessment or from the twelve to the twenty-four month assessment. Some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (35.0%), but no clients improved from twelve to twentyfour months. Other clients maintained no alcohol use from baseline to twelve months (20.0%) and from twelve to twenty-four months (25.0%).



There was a significant reduction in substance use from the baseline to the twelve month assessment, but no significant change from the twelve to twenty-four month assessment. Many clients had a clinically meaningful reduction in substance use from baseline to twelve months (45.0%) and from twelve to twenty-four months (25.0%). Other clients maintained no substance use from baseline to twelve months (45.0%) and from twelve to twenty-four months (50.0%).

# **Clinician Reported Substance Use: IMR Substance Use Subscale**

St. Joseph Center/OPCC clients with matched assessments had a significant decrease in IMR Substance Use scores from baseline to twelve months and from twelve to twenty-four months. From baseline to twelve months and from twelve to twenty-four months many clients had a clinically meaningful reduction in substance use scores (43.9%, 43.5% respectively). This indicates that, on average, drugs and alcohol were less likely to impact the lives of clients.



# **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on incarcerations, client and clinician report of emergency services, constructive activities such as employment, volunteer work, or enrollment in school, housing, housing retention, and mental health stigma. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments included those with: no emergency service use, no mental health stigma, or current employment.

#### **Incarcerations**

There were no significant changes in incarcerations from baseline to twelve months or from twelve to twenty-four months. From baseline to twelve months 21.1% reduced the number of incarcerations, but no clients reduced the number of incarcerations from twelve to twenty-four months. During the same time periods, 57.9% and 80.0% maintained no incarcerations, respectively.

Client Reported Incarcerations  During the past 6 months, how many times were you sent to jail or prison?						
None 1-3 times 4-6 times 7-10 times times						
Matched Sample	Assessment 1 vs. 5	(19 Clients)				
1	68.4%	31.6%	0.0%	0.0%	0.0%	
5	78.9%	15.8%	5.3%	0.0%	0.0%	
Matched Sample	Matched Sample Assessment 5 vs. 9 (5 Clients)					
5	80.0%	20.0%	0.0%	0.0%	0.0%	
9	80.0%	0.0%	20.0%	0.0%	0.0%	

### **Emergency Services**

#### Client Report

There was a significant decrease in ER visits from baseline to twelve months, but not from twelve to twenty-four months. From baseline to twelve months 38.1% reduced the number of visits, but no clients reduced the number of visits from twelve to twenty-four months. During the same time periods, 23.8% and 60.0% maintained no ER visits, respectively.

Client Reported Emergency Service Use  During the past 6 months, how many times did you go to an emergency room?						
	During the past 6 m	onths, how many t	imes did you go to	an emergency roon	1?	
	None	1-3 times	4-6 times	7-10 times	More than 10 times	
Matched Sample	Assessment 1 vs. 5	(21 Clients)				
1	33.3%	52.4%	14.3%	0.0%	0.0%	
5	61.9%	33.3%	4.8%	0.0%	0.0%	
Matched Sample	Matched Sample Assessment 5 vs. 9 (5 Clients)					
5	80.0%	20.0%	0.0%	0.0%	0.0%	
9	60.0%	40.0%	0.0%	0.0%	0.0%	

# Clinician Report

There were no significant changes in frequency of hospitalizations at twelve months compared to baseline, or at twenty-four months compared to twelve months. However, from baseline to twelve months, 14.6% of clients reduced the number of hospitalizations and from twelve to twenty-four months 4.3% reduced the number of hospitalizations. During the same time periods, 70.7% and 87.0% maintained no hospitalizations, respectively.

Psychiatric Hospitalization						
When is	the last time s/he h	as been hospitalize	d for mental health	or substance abus	e reasons?	
	None in the past year	In the past 7-12 months	In the past 4-6 months	In the past 2-3 months	Within the last month	
Matched Sample	Assessment 1 vs. 5	(41 Clients)				
1	80.5%	0.0%	7.3%	0.0%	12.2%	
5	82.9%	9.8%	2.4%	0.0%	4.9%	
Matched Sample Assessment 5 vs. 9 (23 Clients)						
5	95.7%	4.3%	0.0%	0.0%	0.0%	
9	91.3%	0.0%	0.0%	4.3%	4.3%	

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes

in engagement in these activities from baseline to twelve months. From baseline to twelve months, 4.8% of clients began one of these activities and 9.5% maintained these activities. No clients with a matched sample engaged in constructive activities at either the twelve or the twenty-four month assessments.

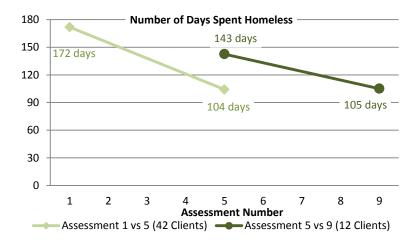
Constructive Activities						
	Percentage of clients who maintained or began the activity  Assessment 1 vs. 5  Assessment 5 vs. 9					
Employment	4.8% (N=21)	0.0% (N=5)				
Volunteer	10.0% (N=20)	0.0% (N=4)				
School	0.0% (N=19)	0.0% (N=5)				
Any Activity	14.3% (N=21)	0.0% (N=5)				

# Housing

The IMHT programs were designed as a housing first approach, so a reduction in the number of days homeless was an important goal. Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months.

At baseline, almost all St. Joseph Center/OPCC clients (93.5%) were chronically homeless (defined as being homeless for at least four of the previous six months). Homelessness significantly decreased from baseline to twelve months, but not from twelve to twenty-four months. From baseline to twelve months, 45.2% of clients reduced the number of days homeless.

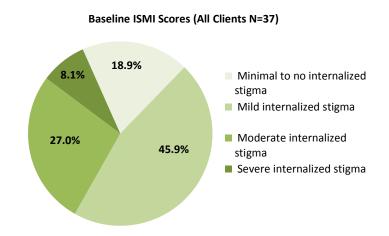
In addition to obtaining housing for their clients, one of the goals of the IMHT programs was to help clients retain housing for at least one year. Provider-maintained datasets were used to determine whether current and previous clients had maintained housing for one year. For current



clients, all clients who had been in the program for at least fifteen months were included in the analysis. The fifteen month period was selected to give providers a three-month window to find housing for new clients after enrollment. For previous clients, all clients who were discharged, or deceased, prior to the one-year housing anniversary, but were housed at the time were excluded from the analysis. For St. Joseph Center/OPCC, 62.2% of clients who were housed had maintained their housing for at least one year.

# **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild



internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was a significant increase in internalized stigma ratings from baseline to twelve months after enrollment. During this time, no clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) and 0.0% of clients maintained no internalized stigma. There was not enough data to analyze change from twelve to twenty-four months.

# **CLIENT SATISFACTION**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 63.7% (N=11) of St. Joseph Center/OPCC clients had high overall satisfaction, indicated by a score of four or greater. Overall satisfaction stayed similar at the twelve month assessment (54.5%, N=11), but there was not a large enough matched sample to conduct significance analyses. There were no completed satisfaction surveys from the twenty-four month assessment. The sample size and percentages reflected in the chart below reflect all clients and not just those with a matched sample.

Client Satisfaction with Services						
	Percent who re					
	or Strong	gly Agree				
St. Joseph Center/OPCC	Assessment 3	Assessment 5				
I was able to get all the services I thought I needed.	81.8% (N=11)	54.5% (N=11)				
I felt comfortable asking questions about my treatment and medication.	81.8% (N=11)	70.0% (N=10)				
Staff were sensitive to my cultural background (race, religion, language, etc.).	72.7% (N=11)	81.8% (N=10)				
This program meets both my mental and physical health care needs.	54.5% (N=11)	63.6% (N=11)				
My beliefs about health and well-being were considered as part of the services that I received here.	100.0% (N=11)	81.8% (N=11)				

# **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

# **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." Most clients "Agreed" or "Strongly Agreed" with these items at both time points, with all clients reporting that their beliefs about health and well-being were considered at the six month assessment. There was not enough data to analyze change from six to twelve months or from twelve to twenty-four months.

### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Most clients "Agreed" or "Strongly Agreed" with these items at each time

point. There was not enough data to analyze change from six to twelve months or from twelve to twenty-four months.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Most clients "Agreed" or "Strongly Agreed" with this item at the six month assessment, and just over half "Agreed" or "Strongly Agreed" at the twelve month assessment. There was not enough data to analyze change from six to twelve months or from twelve to twenty-four months.

#### **Integration**

Integration was assessed using several methods, however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." Just over half of clients "Agreed" or "Strongly Agreed" with this item at each time point. There was not enough data to analyze change from six to twelve months or from twelve to twenty-four months.

# **Step Up on Second/Project 180**

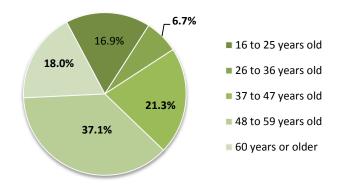
Step Up on Second assists individuals with severe and persistent mental illness in developing opportunities to reintegrate into the community. Step Up on Second is dedicated to longer-term support of people in recovery and their families, offering quality housing, educational, social and work experience. Step Up on Second is committed to increasing public understanding of mental illness. The three core strategies of Step Up on Second include: 1) Help: providing members with supported education, rehabilitation, healthcare, social and employment opportunities that support recovery, self-sufficiency, and achievement of determined goals and integration into the community; 2) Hope: providing preventive, proactive measures, advocacy, friendship, a sense of belonging, and the embrace of a respectable community; and 3) Home: the provision of permanent supportive housing of their choosing in which they may thrive. Step Up on Second has partnered with Project 180 to implement the IMHT service model.

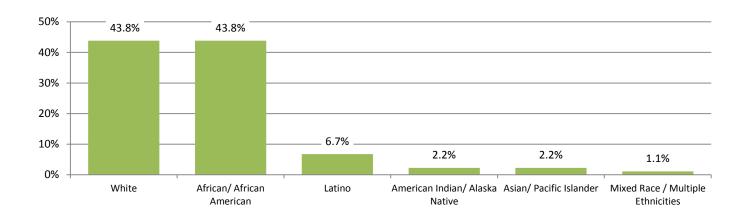
# **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, Step Up on Second has enrolled 89 clients. Of these, 18 (20.2%) have been discharged from the program for any reason.

Step Up on Second clients are most likely to be between the ages of 48 to 59 (37.1%). Over half of clients are male (76.4%).

Step Up on Second clients are most likely to identify as African/ African American (43.8%) or White (43.8%).





# **MENTAL HEALTH OUTCOMES**

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable

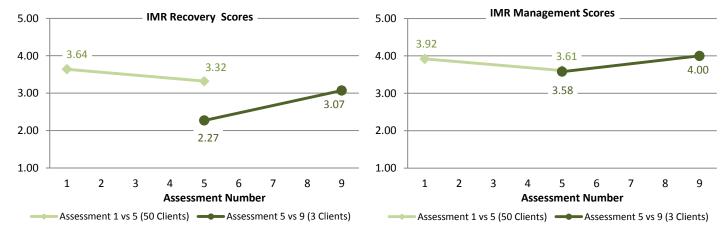
change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

# Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across all Step Up on Second clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months, but not from twelve months to twenty-four months. Half of Step Up on Second clients had a clinically meaningful improvement on the Recovery and Management scales from baseline to twelve months. From twelve to twenty-four months, 33.3% of clients had a clinically meaningful improvement on the Management scale; no clients improved on the Recovery scale. This indicates that, on average, Step Up on Second clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first two years after enrolling in services.



# Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months, but not from twelve to twenty-four months. Many clients had a clinically meaningful increase in MORS scores from baseline to twelve months (52.1%) and from twelve to twenty-four months (66.7%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first two years of services.

Milestones of Recovery (MORS) Ratings							
		Assessme	ent 1 vs. 5	Assessment 5 vs.9			
Rating	Stage of Recovery	(48 CI	ients)	(3 Cli	ents)		
1	Extreme Risk	6.3%	2.1%	0.0%	0.0%		
2	High Risk/Not Engaged	12.5%	8.3%	0.0%	0.0%		
3	High Risk/Engaged	37.5%	12.5%	0.0%	0.0%		
4	Poorly Coping/Not Engaged	12.5%	33.3%	66.7%	33.3%		
5	Poorly Coping/Engaged	18.8%	29.2%	0.0%	33.3%		
6	Coping/Rehabilitating	10.4%	10.4%	33.3%	33.3%		
7	Early Recovery	0.0%	4.2%	0.0%	0.0%		
8	Advanced Recovery	2.1%	0.0%	0.0%	0.0%		

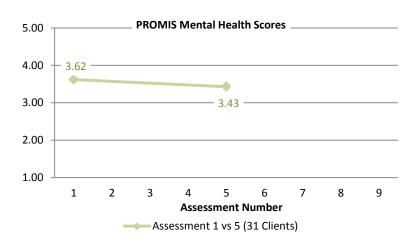
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, at the baseline assessment, 68.8% of clients were engaged based on their MORS score. At twelve months, 56.3% were engaged, and at twenty-four months, 66.7% were engaged. There was no significant change in engagement from baseline to twelve months or from twelve to twenty-four months.

# Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores did not significantly change over twelve months, however many clients had a clinically meaningful improvement from baseline to twelve months (48.4%). There was not enough data to analyze change from twelve to twenty-four months.



# Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and

Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Strengths scales did not change significantly from the baseline to the twelve month assessment. However, some clients had a clinically meaningful improvement or maintained healthy Psychosis or Strengths ratings twelve months after enrollment (66.6%, 27.9% respectively). Across Step Up on Second clients with matched assessments, there was a statistically significant improvement in CHOIS Memory/Cognitive Impairments subscale scores from baseline to twelve months after enrollment. This indicates that, on average, Step Up on Second clients reported less memory impairment one year after enrolling in services. Many clients had a clinically meaningful improvement or maintained healthy Memory/Cognitive Impairment subscale scores twelve months after enrollment (46.7%). There was not enough data to analyze change from twelve to twenty-four months.

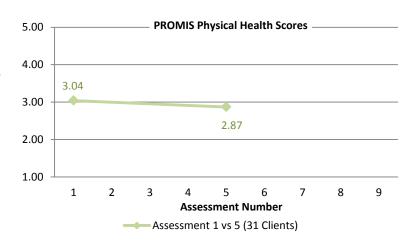


# PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# **PROMIS Global Health – Physical Health Scale**

PROMIS Physical Health scores did not significantly change from the baseline to the twelve month assessment. Clinically meaningful improvement in physical health was seen for 25.8% of Step Up on Second clients from baseline to twelve months. There was not enough data to analyze change from twelve to twenty-four months.



### **Physical Health Indicators**

Clinicians completed the Physical Health Indicators survey by recording the frequency and outcome of typical health screening procedures, including: height, weight, blood pressure, cholesterol, and chronic medical conditions.

#### Health Screening

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first twenty-four months of their enrollment in INN services.

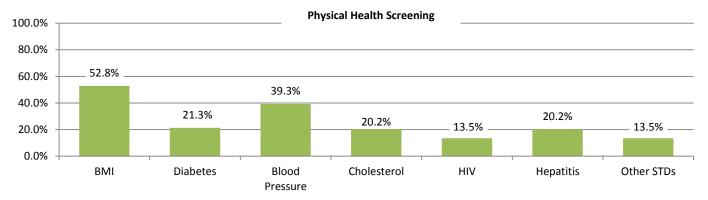


Chart provides the percentage of all Step-UP on Second/Project 180 clients who have ever been screened for the above health conditions within 24 months since enrolling in Innovation services. All current and discharged clients are included in the calculation of percentages, N=89.

### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment. No clients had a clinically meaningful improvement in BMI from baseline to twelve months, but 50.0% of clients maintained a healthy BMI. There was not enough data to analyze change from twelve to twenty-four months.

Body Mass Index (BMI) Categorization							
Assessment # Underweight Normal Weight Overweight Obese							
Matched Sample Asse	essment 1 vs. 5 (16	Clients)					
1	0.0%	62.5%	12.5%	25.0%			
5	6.3%	50.0%	18.8%	25.0%			

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (15.8%), and other clients maintained a healthy blood pressure during the same time periods (10.5%). There was not enough data to analyze change from twelve to twenty-four months.

Blood Pressure Categorization							
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Hypertension Crisis							
Matched Sample	Assessment 1 vs. 5 (	19 Clients)					
1	21.1%	47.4%	26.3%	5.3%	0.0%		
5	15.8%	57.9%	15.8%	10.5%	0.0%		

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk categorization based on the American Diabetes Association categories. If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category. There was not enough data to analyze change from baseline to twelve months or from twelve to twenty-four months.

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category. There was not enough data to analyze change from baseline to twelve months or from twelve to twenty-four months.

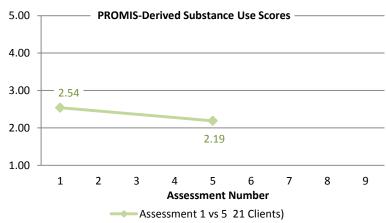
### **SUBSTANCE USE**

Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale, and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# **PROMIS-Derived Substance Use**

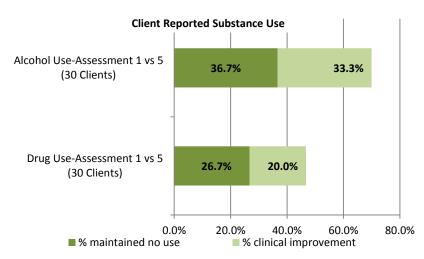
The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.



There was a significant decrease in the PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment. Twelve months after enrollment, 28.6% of Step Up on Second clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or other drug use, and 23.8% maintained a healthy score. There was not enough data to analyze change from twelve to twenty-four months.

# **Client Reported Substance Use Items**

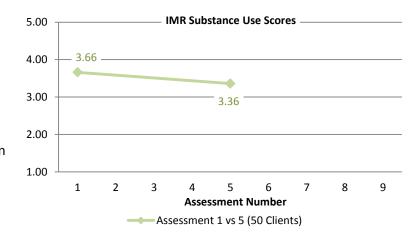
Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey. There was a significant increase in illicit substance use from the baseline to the twelve month assessment, and no significant change in alcohol consumption. Some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (33.3%), and other clients maintained no alcohol use from baseline to twelve months (36.7%). Some clients had a clinically meaningful reduction in substance use from baseline to twelve months (20.0%), and other clients



maintained no substance use from baseline to twelve months (26.7%). There was not enough data to analyze change from twelve to twenty-four months.

# **Clinician Reported Substance Use: IMR Substance Use Subscale**

Step Up on Second clients with matched assessments had a significant decrease in IMR Substance Use scores from baseline to twelve months. From baseline to twelve months many clients had a clinically meaningful reduction in substance use scores (38.0%). This indicates that, on average, alcohol and/other drugs were less likely to impact the lives of clients after twelve months of services. There was not enough data to analyze change from twelve to twenty-four months.



# **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on incarcerations, client and clinician report of emergency services, constructive activities such as employment, volunteer work, or enrollment in school, housing, housing retention, and mental health stigma. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments included those with: no emergency service use, no mental health stigma, or current employment.

#### **Incarcerations**

There were no significant changes in incarcerations from baseline to twelve months. From baseline to twelve months 14.3% reduced the number of incarcerations, and 64.3% maintained no incarcerations. There was not enough data to analyze change from twelve to twenty-four months.

Client Reported Incarcerations							
	During the past 6	months, how many	times were you se	nt to jail or prison?			
None 1-3 times 4-6 times 7-10 times times							
Matched Sample	Matched Sample Assessment 1 vs. 5 (28 Clients)						
1	78.6%	21.4%	0.0%	0.0%	0.0%		
5	78.6%	14.3%	7.1%	0.0%	0.0%		

### **Emergency Services**

#### Client Report

There was a significant reduction in ER visits from baseline to twelve months. From baseline to twelve months 38.7% reduced the number of visits, and 38.7% maintained no ER visits. There was not enough data to analyze change from twelve to twenty-four months.

Client Reported Emergency Service Use						
During the past 6 months, how many times did you go to an emergency room?						
	None	1-3 times	4-6 times	7-10 times	More than 10 times	
Matched Sample Assessment 1 vs. 5 (31 Clients)						
1	51.6%	35.5%	6.5%	3.2%	3.2%	
5	74.2%	16.1%	9.7%	0.0%	0.0%	

#### Clinician Report

There was no significant change in hospitalizations at twelve months compared to baseline, or at twenty-four months compared to twelve months. From baseline to twelve months, 12.2% of clients reduced the number of hospitalizations and from twelve to twenty-four months 33.3% reduced the number of hospitalizations. During the same time periods, 75.5% and 66.7% maintained no hospitalizations, respectively.

Psychiatric Hospitalization							
When is the last time s/he has been hospitalized for mental health or substance abuse reasons?							
	None in the past year	In the past 7-12 months	In the past 4-6 months	In the past 2-3 months	Within the last month		
Matched Sample Assessment 1 vs. 5 (49 Clients)							
1	85.7%	4.1%	4.1%	2.0%	4.1%		
5	85.7%	6.1%	2.0%	6.1%	0.0%		
Matched Sample Assessment 5 vs. 9 (3 Clients)							
5	66.7%	33.3%	0.0%	0.0%	0.0%		
9	100.0%	0.0%	0.0%	0.0%	0.0%		

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There was no significant change in engagement in these activities from baseline to twelve months. From baseline to twelve months, 9.7% of clients began one of these activities, and 16.1% maintained one of these activities.

Constructive Activities				
	Percentage of clients who maintained or began the activity			
	Assessment 1 vs. 5	Assessment 5 vs. 9		
Employment	14.3% (N=28)	N/A (N=1)		
Volunteer	24.1% (N=29)	N/A (N=1)		
School	10.3% (N=29)	N/A (N=1)		
Any Activity	25.8% (N=31)	N/A (N=1)		

### Housing

The IMHT programs were designed as a housing first approach, so a reduction in the number of days homeless was an important goal. Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. There was not enough data to analyze change from baseline to twelve months or from twelve to twenty-four months.

In addition to obtaining housing for their clients, one of the goals of the IMHT programs was to help clients retain housing for at least one year. Provider-maintained datasets were used to determine whether current and previous clients had maintained housing for one year. For current clients, all clients who had been in the program for at least fifteen months were included in the analysis. The fifteen month period was selected to give providers a three-month window to find housing for new clients after enrollment. For previous clients, all clients who were discharged, or deceased, prior to the one-year housing anniversary, but were housed at the time were excluded from the analysis. For Step Up on Second, 56.1% of clients who were housed had maintained their housing for at least one year.

### Stigma

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was no significant change in internalized stigma ratings from baseline to twelve months after enrollment. However, from baseline to twelve

Baseline ISMI Scores (All Clients N=46) 6.5% Minimal to no internalized 26.1% stigma Mild internalized stigma Moderate internalized 37.0% 30.4% stigma Severe internalized stigma

months, 20.0% of Step Up on Second clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings). No clients completed the ISMI at both the twelve and twenty-four month assessments, so changes cannot be assessed for that time period.

# **CLIENT SATISFACTION**

At the six month assessment, and at each subsequent semi-annual assessment, clients were randomly selected to take either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 83.3% (N=6) of Step Up on Second clients had high overall satisfaction, indicated by a score of four or greater. Overall satisfaction dropped greatly at the twelve month assessment (40.0%, N=5). There was not a large enough matched sample to conduct significance analyses, or to report satisfaction at the twenty-four month assessment. The sample size and percentages reflected in the chart below reflect all clients and not just those with a matched sample.

Client Satisfaction with Services					
	Percent who responded Agree or Strongly Agree				
Step Up on Second	Assessment 3	Assessment 5			
I was able to get all the services I thought I needed.	57.1% (N=7)	60.0% (N=5)			
I felt comfortable asking questions about my treatment and medication.	83.3% (N=6)	80.0% (N=5)			
Staff were sensitive to my cultural background (race, religion, language, etc.).	83.3% (N=6)	60.0% (N=5)			
This program meets both my mental and physical health care needs.	100.0% (N=5)	40.0% (N=5)			
My beliefs about health and well-being were considered as part of the services that I received here.	83.3% (N=5)	40.0% (N=5)			

# **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

# **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." Clients were more likely to Agree or Strongly Agree with these items at the six month assessment than at the twelve month assessment. There was not enough data to analyze change from six to twelve months or from twelve to twenty-four months.

# **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Most clients "Agreed" or "Strongly Agreed" with this item at the six and twelve month assessments. There was not enough data to analyze change from six to twelve months or from twelve to twenty-four months.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Just over half of clients at Step Up on Second "Agreed" or "Strongly Agreed" with this item. There was not enough data to analyze change from six to twelve months or from twelve to twenty-four months.

### **Integration**

Integration was assessed using several methods, however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, all of the clients "Agreed" or "Strongly Agreed" with this item; however, by the twelve month assessment, fewer than half "Agreed" or "Strongly Agreed". There was not enough data to analyze change from six to twelve months or from twelve to twenty-four months.

## **Community-Designed Integrated Service Management Model: Executive Summary**

The Community-Designed Integrated Service Management Model (ISM) was designed to improve the quality of services for underrepresented ethnic populations (UREP) by addressing the fragmentation inherent in the current public mental health system of care and by building on the strengths of each particular community. ISM programs also differentiate specific needs and approaches for five distinct UREP groups, including: African Immigrant / African American, American Indian / Alaska Native, Asian / Pacific Islander, Eastern European / Middle Eastern and Latino. The ISM programs are defined by their communities and promote collaboration and partnerships between formal and non-traditional service providers and community-based organizations to integrate physical health, mental health, substance abuse, and other needed care to support the recovery of consumers. "Formal" providers include mental health, physical health, substance abuse, child welfare, and other similar service providers. "Non-traditional" providers are those that offer community defined services, including cultural healers, yoga instructors, and other wellness activities.

The ISM model consists of seventeen programs across five targeted UREP groups: Kedren Community Health Center, University Muslim Medical Association (UMMA)/Weber Community Center, United American Indian Involvement (UAII), Asian Pacific Health Care Venture (APHCV)/Pacific Clinics, Korean ISM (Korean American Family Service Center, Koreatown Youth & Community Center, Special Service for Groups – OAP, and Special Service for Groups – APCTC), Pacific Asian Counseling Services (PACS), Special Service for Groups – API Alliance, Didi Hirsch Mental Health Services, Institute for Multicultural Counseling & Education Services (IMCES), Jewish Family Services, Alma Family Services, Los Angeles Child Guidance Clinic (LACGC)/Barbour and Floyd, St. Joseph Center, and Tarzana Treatment Center.

### **KEY EVALUATION FINDINGS**

This summary presents ISM data related to the Innovation goals and model specific goals. A more comprehensive presentation of all evaluation findings, including sample sizes, is provided in the full report and Appendix C. The primary goals were to:

- 1. Successfully integrate physical health, mental health and substance abuse services
- 2. Improve the physical health status of clients participating in the program
- 3. Improve the mental health status of clients participating in the program
- 4. Reduce the impact of substance abuse on clients participating in the program
- 5. Demonstrate consumer and provider satisfaction with integrated services
- 6. Provide a cost effective model of care

### **Program enrollment and client characteristics**

A total of 1,719 adults enrolled in an ISM program during the evaluation period. Across ISM providers, enrollment was the highest at Kedren Community Health Center, Alma Family Services, and Tarzana Treatment Center (15.1%, 11.9%, and 11.5% respectively). ISM clients were most likely to be female (64.9% female, 35.1% male, and one client identified as transsexual) between the ages of 37 and 59 (55.1%). They were most likely to be Latino (36.1%) or African/African American (23.8%). No ISM clients were White.

#### **Overall Outcomes**

### Integration

The Integrated Treatment Tool (ITT) was used as a guiding framework to evaluate each program's level of integration across eight domains; Integrated Approach, Policies and Procedures, Peer Support, Care Coordination, Use of Data to Assess Effectiveness, Interdisciplinary Communication, Integrated Health Information/Technology, and Organizationwide Training. All domains consisted of dichotomized statements that are either true or not true of each program. While all ISM programs demonstrated success in some domains, they varied in their degree of overall integration. Out of a possible 30 points, the lowest score was 6, the highest score was 27, and the median score was 17. Specifically, APHCV/Pacific Clinics, UMMA/Weber Community Clinic, Alma Family Services, Didi Hirsch, Korean ISM, PACS, and UAII exceeded the median score, and were rated as having Significantly Above Average or Above Average levels of integration. Jewish Family Services, Kedren Community Health Center, LA Child Guidance and Tarzana Treatment Centers were rated as having an Average level of integration based on total ITT score.

#### Mental Health

For ISM clients overall, there was a significant decrease in Overall IMR scores and a significant increase in MORS scores from the baseline to the twelve month assessment. There were also significant decreases on the clientreported mental health measures during the same time: the Mental Health subscale of the PROMIS Global Health scale, and the CHOIS Psychosis, CHOIS Memory/Cognitive Impairment and CHOIS Strengths subscales. Each of these results indicates improvement in mental health status after enrollment in INN services for ISM clients.

	Overall IMR		М	ORS	PROMIS Mental Health Subscale	
Drogram	MID Change 1 vs. 5 1 vs. 5		MID 1 vs. 5	Change 1 vs. 5	MID 1 vs. 5	Change 1 vs. 5
Program Kedren	80.0%		70.0%		44.4%	1 vs. 5
UMMA/Weber	68.4%	<b>→</b>	64.3%	<b>1</b>	38.3%	<b>+</b>
UAII	55.2%	<b>↓</b>	52.0%		62.5%	<b>V</b>
APHCV/Pacific Clinics	81.8%	<b>1</b>	69.6%	<b>1</b>	23.8%	<b>→</b>
Korean ISM programs	85.7%	<b>↓</b>	69.2%	·	78.6%	<b>V</b>
PACS	33.3%	→	75.0%	<b>→</b>	-	_
SSG-API Alliance	100%	<b>V</b>	33.3%	<i>→</i>	75.0%	Ψ
Didi Hirsch	86.5%	<b>V</b>	53.1%	<b>1</b>	54.5%	<u> </u>
IMCES	72.7%	<b>V</b>	81.8%	<u> </u>	83.3%	<b>V</b>
Jewish Family Services	76.2%	<b>V</b>	47.6%	<b>→</b>	30.8%	<b>→</b>
Alma Family Services	88.2%	<b>V</b>	87.5%	<b>1</b>	63.2%	<b>V</b>
LACGC/Barbour & Floyd	80.0%	<b>V</b>	72.7%	<b>1</b>	73.3%	<b>4</b>
St. Joseph Center	66.7%	<b>4</b>	51.9%	<b>1</b>	56.4%	<b>4</b>
Tarzana Treatment Center	86.8%	<b>V</b>	66.0%	<b>↑</b>	45.8%	<b>V</b>
ISM Model Overall	76.2%	<b>4</b>	62.1%	<b>1</b>	51.6%	<b>4</b>

Note: Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

Please note when comparing outcomes that the matched sample size for each measure varies between programs. Dashed lines (-) indicate that the program did not have a large enough matched sample (N<3) to analyze change in score. Refer to the data appendix for sample size information.

### **Physical Health**

There was a significant decrease in PROMIS Global Health Physical Health subscale scores for ISM clients from the baseline to the twelve month assessment, indicating improved physical health.

There was also a significant change in body mass index (BMI) for ISM clients. When compared to baseline, BMI was significantly higher at the twelve month assessment, with more clients falling into the overweight/obese weight categories. The increase in BMI is possibly an indication that clients are receiving new medications or taking their existing medications more consistently, as many medications (especially antipsychotics) are known to cause weight gain. However, from baseline to twelve months, many clients maintained a normal BMI (20.6%) and 7.0% had a clinically meaningful improvement. Overall, there was no significant change in risk for hypertension based on blood pressure from baseline to twelve months for ISM clients.

	PROMIS Physical Health Subscale		ВМІ		Blood Pressure	
Duaguaga	MID Change		MID	Change	MID	Change
Program	1 vs. 5	1 vs. 5	1 vs. 5	1 vs. 5	1 vs. 5	1 vs. 5
Kedren	11.1%	$\rightarrow$	-	-	-	-
UMMA/Weber	48.9%	<b>V</b>	18.7%	$\rightarrow$	44.2%	$\rightarrow$
UAII	50.0%	$\rightarrow$	0.0%	<b>^</b>	62.5%	$\rightarrow$
APHCV/Pacific Clinics	19.0%	$\rightarrow$	31.8%	<b>1</b>	50.0%	$\rightarrow$
Korean ISM programs	57.1%	<b>4</b>	57.2%	$\rightarrow$	71.5%	$\rightarrow$
PACS	-	-	66.7%	$\rightarrow$	50.0%	$\rightarrow$
SSG-API Alliance	50.0%	$\rightarrow$	-	-	-	-
Didi Hirsch	27.3%	$\rightarrow$	21.9%	$\rightarrow$	37.5%	$\rightarrow$
IMCES	66.7%	<b>↓</b>	28.6%	$\rightarrow$	50.0%	$\rightarrow$
Jewish Family Services	30.8%	$\rightarrow$	36.8%	$\rightarrow$	54.5%	<b>V</b>
Alma Family Services	42.1%	<b>4</b>	20.0%	$\rightarrow$	50.0%	$\rightarrow$
LACGC/Barbour & Floyd	66.7%	<b>V</b>	13.4%	$\rightarrow$	50.1%	$\rightarrow$
St Joseph Center	30.9%	<b>4</b>	28.6%	$\rightarrow$	50.0%	$\rightarrow$
Tarzana Treatment Center	33.3%	$\rightarrow$	23.2%	<b>1</b>	37.5%	$\rightarrow$
ISM Model Overall	38.3%	<b>V</b>	27.6%	<b>1</b>	47.0%	$\rightarrow$

Notes: MID is the percentage of clients who made clinically meaningful improvement or maintained healthy BMI or blood pressure.

Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

Please note when comparing outcomes that the matched sample size for each measure varies between programs. Dashed lines (-) indicate that the program did not have a large enough matched sample (N<3) to analyze change in score. Refer to the data appendix for sample size information.

#### Substance Use

The majority of ISM clients reported that they had not consumed alcohol (55.7%) or used drugs (88.1%) at the baseline assessment. More than half of ISM clients reported that they maintained no alcohol use from baseline to twelve months (57.8%) while most clients reported that they maintained no drug use during the same time period (83.6%). However, there was a significant reduction in alcohol consumption and drug use twelve months after enrollment compared to baseline. Clients who completed the PROMIS-Derived Substance Use measure also reported a significant decrease in negative consequences associated with alcohol and/or other drug use on the twelve month assessment, compared to the baseline. During this period, clinicians reported significant improvement in IMR Substance ratings, suggesting that clients experienced less impairment in functioning due to substance use. Since there were few clients who reported substance use at the baseline, most of these changes were not significant for individual programs.

	IMR Substance Use Subscale			eported ol Use	Client Reported Drug Use	
Drogram	MID Change		MID	Change	MID	Change
Program Kedren	1 vs. 5 30.0%	1 vs. 5 →	1 vs. 5 62.5%	1 vs. 5 →	1 vs. 5 88.9%	1 vs. 5 →
UMMA/Weber	28.9%	<b>4</b>	57.8%	<b>+</b>	87.0%	<i>→</i>
UAII	27.6%	<b>→</b>	56.3%	<b>→</b>	100%	, →
APHCV/Pacific Clinics	0.0%	<b>→</b>	85.0%	<b>→</b>	100%	<b>→</b>
Korean ISM programs	35.7%	<b>4</b>	78.5%	$\rightarrow$	85.7%	$\rightarrow$
PACS	0.0%	$\rightarrow$	-	-	-	-
SSG-API Alliance	25.0%	$\rightarrow$	75.0%	$\rightarrow$	75.0%	$\rightarrow$
Didi Hirsch	5.4%	$\rightarrow$	81.8%	<b>V</b>	93.9%	$\rightarrow$
IMCES	9.1%	$\rightarrow$	66.7%	$\rightarrow$	100%	$\rightarrow$
Jewish Family Services	14.3%	$\rightarrow$	50.0%	$\rightarrow$	100%	$\rightarrow$
Alma Family Services	11.8%	$\rightarrow$	66.7%	$\rightarrow$	94.1%	→
LACGC/Barbour & Floyd	4.0%	$\rightarrow$	93.4%	$\rightarrow$	93.3%	→
St Joseph Center	3.5%	$\rightarrow$	90.5%	$\rightarrow$	90.7%	→
Tarzana Treatment Center	5.7%	$\rightarrow$	100%	<b>V</b>	95.7%	$\rightarrow$
ISM Model Overall	12.4%	<b>V</b>	76.8%	<b>V</b>	92.5%	<b>4</b>

Notes: MID is the percentage of clients who made clinically meaningful improvement or maintained no alcohol or substance use.

Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

Please note when comparing outcomes that the matched sample size for each measure varies between programs. Dashed lines (-) indicate that the program did not have a large enough matched sample (N<3) to analyze change in score. Refer to the data appendix for sample size information.

### **Consumer and Provider Satisfaction with Integrated Services**

Overall, staff respondents from each program were highly satisfied with INN services. A majority of staff from the ISM model were satisfied with their own ability to address mental health and/or psychosocial needs of clients, and with the integration of services. Most respondents felt that integrated mental and physical healthcare services were beneficial for their clients. However, there was a lot of variation between programs in staff's level of confidence with their own ability to address the substance use issues of clients and their satisfaction with communication between partnering agencies.

Clients' overall satisfaction with services varied greatly across ISM programs. Satisfaction items were also used to determine satisfaction with the integration of services, client engagement, receipt of desired services and the cultural competency of the program from the client's perspective.

	% of cl	ients who Agree or S	trongly Agree at Six N	Months
Program	Overall Satisfaction	Integration of services	Staff were sensitive to my cultural background	My beliefs about health and well- being were considered
Kedren	33.3% (N=12)	50.0% (N=12)	75.0% (N=12)	50.0% (N=12)
UMMA/Weber	50.0% (N=12)	83.3% (N=12)	91.7% (N=12)	91.7% (N=12)
UAII	83.3% (N=18)	88.9% (N=18)	100% (N=18)	88.9% (N=18)
APHCV/Pacific Clinics	71.4% (N=7)	71.4% (N=7)	85.7% (N=7)	57.1% (N=7)
Korean ISM programs	77.8% (N=9)	88.9% (N=9)	66.7% (N=9)	88.9% (N=9)
PACS	85.7% (N=7)	100% (N=7)	100% (N=7)	100% (N=7)
SSG-API Alliance	100% (N=3)	100% (N=3)	100% (N=3)	100% (N=3)
Didi Hirsch	78.6% (N=28)	78.6% (N=28)	92.9% (N=28)	96.4% (N=28)
IMCES	100% (N=3)	100% (N=3)	100% (N=3)	100% (N=3)
Jewish Family Services	61.5% (N=13)	76.9% (N=13)	75.0% (N=12)	58.3% (N=12)
Alma Family Services	70.8% (N=24)	83.3% (N=24)	87.5% (N=24)	87.5% (N=24)
LACGC/Barbour & Floyd	100% (N=10)	100% (N=10)	100% (N=10)	100% (N=10)
St Joseph Center	81.8% (N=22)	95.5% (N=22)	100% (N=22)	95.5% (N=22)
Tarzana Treatment Center	75.0% (N=12)	75.0% (N=12)	83.3% (N=12)	83.3% (N=12)

### **Model Specific Findings**

In addition to addressing the overall goals of the Innovation project, the ISM model had the unique goals of decreasing stigma associated with seeking and receiving services, increasing engagement and retention of UREP families in the ISM formal and non-traditional services, and increasing the number of clients who are integrated into their community (e.g., finding meaningful job opportunities, learning useful skills and/or developing new interests).

#### Stigma

Stigma was cited as a major impediment to outreach and enrollment across all ISM programs. During Learning Sessions and the Culturally-Responsive Treatment Study, ISM providers shared their strategies for overcoming this stigma. Strategies included providing services in a nondescript building or site, speaking about mental health issues in general terms (e.g., "problems"), and initial engagement in services through educational and other non-mentalhealth focused activities. There was a significant reduction in scores on the Internalized Stigma of Mental Illness scale (ISMI) from baseline to twelve months across all ISM clients. This indicates that ISM clients were significantly less likely to feel stigmatized based on their mental health twelve months after enrollment. This decrease in stigma may be related to the extensive, culturally competent community outreach efforts conducted by the ISM providers.

	ISMI Stigma		Involve	mily ment in tment	Contact with people outside of family	
	MID	Change	MID	Change	MID	Change
Program	1 vs. 5	1 vs. 5	1 vs. 5	1 vs. 5	1 vs. 5	1 vs. 5
Kedren	0.0%	<b>^</b>	77.8%	<b>V</b>	60.0%	$\rightarrow$
UMMA/Weber	30.8%	$\rightarrow$	40.5%	$\rightarrow$	40.5%	$\rightarrow$
UAII	57.1%	$\rightarrow$	37.9%	$\rightarrow$	35.7%	$\rightarrow$
APHCV/Pacific Clinics	33.3%	$\rightarrow$	54.5%	<b>V</b>	86.4%	<b>V</b>
Korean ISM programs	33.3%	$\rightarrow$	50.0%	<b>↓</b>	78.6%	<b>V</b>
PACS	-	-	33.3%	$\rightarrow$	66.7%	$\rightarrow$
SSG-API Alliance	33.3%	$\rightarrow$	25.0%	$\rightarrow$	75.0%	<b>\</b>
Didi Hirsch	50.0%	$\rightarrow$	27.0%	$\rightarrow$	64.9%	<b>V</b>
IMCES	-	-	36.4%	$\rightarrow$	72.7%	<b>↓</b>
Jewish Family Services	-	-	20.0%	$\rightarrow$	47.6%	<b>V</b>
Alma Family Services	37.5%	$\rightarrow$	58.8%	<b>↓</b>	58.8%	<b>↓</b>
LACGC/Barbour & Floyd	14.3%	$\rightarrow$	28.0%	$\rightarrow$	64.0%	<b>V</b>
St Joseph Center	50.0%	<b>4</b>	42.1%	<b>↓</b>	37.5%	$\rightarrow$
Tarzana Treatment Center	33.3%	$\rightarrow$	50.9%	<b>V</b>	65.4%	<b>V</b>

Notes: MID is the percentage of clients who made clinically meaningful improvement or maintained no stigma or high levels of involvement of family and friends.

Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

Please note when comparing outcomes that the matched sample size for each measure varies between programs. Dashed lines (-) indicate that the program did not have a large enough matched sample (N<3) to analyze change in score. Refer to the data appendix for sample size information.

### Social Support

Two items from the IMR were used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)."

From baseline to twelve months, clients at Kedren Community Health Center, APHCV/Pacific Clinics, Korean ISM, Alma Family Services, St. Joseph Center and Tarzana Treatment Center were significantly more likely to have family or friends involved in their treatment. However, willingness to involve family and friends in treatment may depend on the client's cultural background. Clients at the majority of ISM programs had significantly more frequent contact with friends or other people outside of their family twelve months after enrollment in INN services when compared to baseline. This suggests that ISM programs were successful at improving clients' interaction and contact with their community.

### CONCLUSIONS

ISM clients showed improved physical and mental health, reduced substance use, and improved quality of life. While ISM programs demonstrated varying levels of integration, all programs were observed to have a patient-centered approach, which was one of the key goals of the model. The model was also successful in achieving model-specific goals, including a significant decrease in mental health stigma and a significant improvement in social support.

## **Community-Designed Integrated Service Management Model (ISM)**

### ISM INTRODUCTION

The Community-Designed Integrated Service Management Model (ISM) was designed to improve the quality of services, specifically for underrepresented ethnic populations (UREP), by addressing the fragmentation inherent in the current public mental health system of care and by building on the strengths of each particular community. The ISM programs are models of care that are defined by the communities themselves. They promote collaboration and partnerships between formal and non-traditional service providers, and community-based organizations to integrate physical health, mental health, substance abuse, and other needed care to support the recovery of consumers. "Formal" providers include mental health, physical health, substance abuse, child welfare, and other similar service providers. "Non-traditional" providers are those that offer community defined services that may not have credentials that permit reimbursement from public or private insurance, including cultural healers, yoga instructors, and other wellness activities.

The implementation of community-designed ISM programs is innovative for several reasons. First is the attempt to integrate care in a large, diverse urban environment with complex systems of care. ISM programs also differentiate specific needs and approaches for five distinct UREP groups, including: African Immigrant / African American, American Indian / Alaska Native, Asian / Pacific Islander, Eastern European / Middle Eastern and Latino. Programs focus on community self-direction for integrated service delivery, and integrate peers into formal and non-traditional providers. ISM programs strive to go beyond traditional service delivery by using community strengths and partnerships to create models of care that integrate mental health, physical health, and substance abuse services specifically tailored to each of the five UREP groups. Outcome measures from each ISM program illuminate the extent to which the model facilitates culturally-informed peer-based services; measures the degree, nature and success of service integration; and provides feedback on which services were the most effective for each ethnic community in developing culturally competent models of care and care integration.

The ISM model consists of discrete teams of specially-trained and culturally competent "service integrators" who help clients use the resources of both "formal" and "non-traditional" networks of providers, and who use culturallyeffective principles and values. ISM services are grounded in ethnic communities with a strong foundation of community-based, non-traditional, and natural support systems such as faith-based organizations. Services provided include physical and mental health screening, crisis intervention, case management, family supportive services, psychotherapy/counseling, referrals and linkages, preventative health education and screenings, substance abuse services, and non-traditional services. Client level outcome goals for the ISM model include: improvements in the mental health, physical health, and substance abuse issues of UREP clients treated by the integrated collaborative network; an increase in health, mental health, and substance abuse knowledge and awareness in the UREP communities; a decrease in the stigma associated with seeking and receiving the services; increased engagement and retention of UREP families in the ISM formal and non-traditional services; increased integration and involvement of UREP clients with community-based natural supports and resources available in the service area of residence; and increased number of clients who become more integrated in their communities (e.g., find meaningful job opportunities, learn useful skills and/or develop new interests).

The ISM model has a total of 17 providers across the five targeted UREP groups. Provider level data will be organized in this report by UREP group.

African Immigrant / African American:

- Kedren Community Health Center
- University Muslim Medical Association (UMMA)/Weber Community Center

#### American Indian / Alaska Native:

United American Indian Involvement (UAII)

#### Asian / Pacific Islander:

- Asian Pacific Health Care Venture (APHCV)/Pacific Clinics
- Korean ISM Korean American Family Service Center, Koreatown Youth & Community Center, Special Service for Groups – OAP, and Special Service for Groups – APCTC
- Pacific Asian Counseling Services (PACS)
- Special Service for Groups API Alliance

#### Eastern European / Middle Eastern:

- Didi Hirsch Mental Health Services
- Institute for Multicultural Counseling & Education Services (IMCES)
- **Jewish Family Services**

#### Latino providers:

- Alma Family Services
- Los Angeles Child Guidance Clinic/Barbour and Floyd (LACGC)
- St. Joseph Center
- Tarzana Treatment Center

### **CULTURALLY-RESPONSIVE TREATMENT QUALITATIVE STUDY**

### **Background**

Each ISM program was initially tasked with creating culturally relevant integrated services for their designated ethnic community within Los Angeles County. This proved to be a challenging task for each agency. Providers implemented highly culturally competent programs that were responsive and reflective of the people and community they served. However, the providers struggled to combat stigma related to the receipt of mental health or substance use services and to align traditional cultural practices, values and norms into an integrated care context. A great deal of learning took place among ISM providers through this process; the evaluation team sought to document this learning so that it can be applied in future work.

In fall 2013, thirteen focus group interviews were conducted with a total of 70 staff from ISM agencies. The priority for this qualitative study was to document (1) strategies used by each of the ISMs to facilitate outreach and engagement with their respective communities, (2) different examples of wellness or healing activities that resonated for ISM clients, (3) procedures established by each ISM to promote cultural competence in the services offered, and (4) challenges in sustaining cultural competence for wellness programs and the agency as a whole.

### Methodology

The thirteen ISM programs that participated in the focus groups worked with the following ethnic communities: African immigrant and African American (A/AA - 2 programs), American Indian and Alaska Native (AI/AN - 1 program), Asian and Pacific Islander (API - 4 programs<sup>4</sup>), Eastern European and Middle Eastern (EE/ME - 3 programs) and Latino (3 programs). Each focus group lasted between 60 and 90 minutes in which a five-question interview guide was used to direct discussion. There were five to ten interviewees per focus group.

The focus groups were transcribed verbatim and redacted of any personal identification data (i.e.,

names, geographical locations, program names, agency names, and clinic names). A copy of the redacted interview file was provided in late February 2014 to each ISM program manager as a record of their participation in the focus group study. Content analysis (Milne & Oberle, 2005<sup>5</sup>; Sandelowski, 2000<sup>6</sup>) was conducted to pull out central ideas emerging across and between the ISM agencies interviewed. ATLAS.ti was used to facilitate coding and inter-rater reliability checks were used to verify codes.

At the time data collection took place, most of the ISMs were still in the outreach and enrollment phase of their Innovation program. The ISM programs have continued to progress and evolve beyond outreach and enrollment activities in the year since the data was collected; however, there is still valuable learning and promising practices from this beginning stage of the ISM programs.

### **Promising Practices**

This summary is based on themes that emerged across programs and highlights promising practices for outreach, enrollment, engagement, and the delivery of culturally competent services from preliminary analysis.

# Practice 1: Use multiple strategies to reduce stigma

Stigma was cited as a major impediment to outreach and enrollment across all ISMs. ISM providers developed and refined a number of different strategies to overcome the challenge of stigma. These strategies included providing services in a nondescript building or site, speaking about mental health issues in general terms, (e.g., "problems"), and initial engagement in services through educational and other non-mental-health focused activities.

**Terminology and word choice.** Providers discussed that, particularly during the outreach and enrollment

<sup>&</sup>lt;sup>4</sup> Includes Cambodian (1 program), Samoan (1 program), Korean (1 program), and Chinese (1 program).

Milne, J., & Oberle, K. (2005). Enhancing rigor in qualitative description: A case study. *Journal of Wound Ostomy Continence Nursing*, 32, 413-420.

<sup>&</sup>lt;sup>6</sup> Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing and Health*, 23, 334-340

phase, it was useful to avoid using mental health terminology. For example, a provider from an A/AA ISM described "when we interact with our clients, even before they become a client, we don't use big words because those tend to scare our clients away. So we soften some of our language by saying, 'someone to talk to, an area that is safe,' and so that's been a way that clients have at least gotten their foot in the door." Some alternative language used by the providers include: "improve your self-confidence", "someone to talk to", "an area that is safe", or "do you feel stressed?" Programs have embraced this terminology for verbal communications with current and potential clients as well as in written materials, such as program brochures.

Incorporate non-mental health focused programs and activities for initial engagement. ISM staff reported that they used programs and activities focused on nonmental health issues and topics to engage people and to make it safe for them to become a "client" of the program. For example, one API ISM instituted an "educational workshop" series focused on physical health issues on Thursday afternoons because program staff found that:

"When [prospective clients] hear 'mental health,' they run away. They shut down right away; they stop talking to you...We noticed that now in API communities high blood pressure, diabetes, and arthritis are major issues that clients come across, especially the seniors, so we have a workshop, and my nutritionist, who will be able to speak [specific language], specifically--to give a weekly workshop and also an acupuncturist to talk about acupuncture and to talk about some of the traditional approaches to solving, let's say, arthritis issues or pain management... We provide that platform, where clients will be able to interact with each other or even prospective clients, so that when they come, they don't think of this as, 'I'm in a mental health clinic'...they see it as, 'You know what? I'm here to meet friends. I'm here to have a good time, to play chess, to cook with my peers, my friends, people who understand me, people who understand my immigrant background, immigrant experience and also the language." "

**Setting.** For some clients, the site where services are offered, especially signage directly referring to mental health services, may dissuade them from accessing services. Providers from an A/AA ISM described how

their building has no sign, so "there's no stigma associated, no one identifies what kind of building. So ...no one knows why people are coming in and out. And it works perfect, it's a good camouflage."

### **Practice 2: Partner with faith communities** and include religious/spiritual practices

Many ISM programs incorporated religious and spiritual practices into their programs; however the practice was most prominent for Korean, Cambodian, and Latino communities. Providers reported that they partnered with religious organizations to help with outreach and to be involved with program activities. Incorporating religious and spiritual practices specific to the cultural group was important and most effective in some programs. For example, a Latino ISM provider described how "one of the things that I have done in session is prayed with them...we do different techniques for anxiety and we're holistic like the deep breathing and stuff." Providers from an API ISM described that "integrated care to us and our community...is the integration of mind and spirit and physical health, and you have to find the pathways for your population to be able to access it." Including religious and spiritual practice, this API ISM has coordinated blessing ceremonies for their clients and others to attend as part of this integrated care.

### Practice 3: Use native language

Nearly all ISM staff mentioned the importance of communicating with the clients in their native language. For example, one Latino ISM provider said, "Several of my clients have mentioned that they value that I can speak to them in their language. I have one particular client who said he was seeing a therapist (in English)...but he said that he wasn't able to express himself fully like he could in his own language...Sometimes, we even go consult during their doctor visits with them and some of them that have language barriers, We're able to help them with that and to communicate better with their doctor." Not having services provided in their native language may serve as a barrier to engagement for some clients. A provider from a Latino ISM explained that, "one of the things [clients] value is that they're able to communicate in their own language, in Spanish... A lot of the times, I feel like they don't seek out or obtain the services they need because there is a language barrier.

So, I think when they come in to see us they're very comfortable."

For some clients, providers noted that staff ethnicity doesn't matter as much as the ability of staff to speak the client's language. For other clients, however, having a provider that is the same ethnicity as them is an important factor. One provider explained, that for their EE/ME community,

"They love the fact that they can relate to someone who understands them; both language and culturally. It's really important I think for every culture but specifically for ours also because they are so indirect. You need somebody who understands the culture to really understand and dig and find the source of what is causing their issues or what is going on really in their life. So I think they really benefit and also really appreciate that A) we can understand them and speak the language, and B) we're from the same culture and we've had parents who are immigrants or ourselves."

A/AA ISM providers also noted the importance of staff and clients sharing a cultural/ ethnic background, "A lot of people of different nationalities, they have a difficult time working with just anyone that's not of their culture. It's like, 'Well how can I work with this person, because they don't know anything about me. They know nothing about my history.'"

# Practice 4: Ensure staff have knowledge of, and practice cultural/social norms

Incorporating cultural and social norms was cited as important by many ISM programs. This may include practices such as addressing elders in formal terms, hugging, and bowing. As one Latino ISM provider described, "Latinos are very touchy-feely people by nature anyway...we've had termination sessions where they've hugged and cried and I've cried too...So there are certain rules I think clinically that are broken when it comes to working with a specific population because I think that's what makes you connect to them." For one of the API communities, greetings are especially important. "You have to understand about the culture, especially with the greeting...and when you talk to the older people, what kind of word that you talk to them...You don't call them by name...call them Auntie, or...brother, older brother, older sister, or younger,

something like that." This also includes being sensitive to certain issues of historical importance to people of that ethnic group, such as genocide and wars.

# Practice 5: Build community through group-based activities

Activities that allow clients to socialize help build the community and help the clients develop as individuals. One example from a Latino ISM is knitting, which gives the clients an opportunity "to join a group and be able to talk to others [which] can also help with their depression... Latino clients feel more comfortable attending a group that they feel like they might know something or might be familiar with." An important social activity that was discussed by one of the EE/ME ISMs is "Coffee Talk...For many, many years and centuries, Armenians, wherever they were, they used to just have this coffee and gather together and then drink the coffee and talk about everything...So that was a good approach to just talk to people and identify if they would have any problems or any needs of mental health services...And then by drinking the coffee, start a conversation. And always we have new people who are coming with others and they are just trying to get more information." For one of the API communities, spas are a good place to gather, and one of the ISMs described how they have "a relationship with the local spa in [neighborhood] that offers these services that are pretty commonly used by the [specific population] community to this area. So we've negotiated a reduced rate day pass. And what we do is provide it as an alternative activity for individual-based clients...for them to kind of congregate and as a form of stress reduction."

#### Conclusion

While ISM programs' specific strategies are targeted to the unique population they serve, many of the approaches are common. The five promising practices described here could be applicable to any provider facing similar challenges such as clients with stigma about mental health services and clients with low levels of trust and awareness about mental health treatment. Overall, the ISM programs have overcome significant challenges with their creative and flexible approach to outreach, engagement, and deep cultural competence.

### NON-TRADITIONAL SERVICES FOCUS GROUPS

Use of non-traditional services was an important aspect of the ISM model. Providers were given the opportunity to select the services that were most suitable to their target community. Some providers initially selected services based on their population's cultural traditions, while other programs selected services with strong research behind them, such as acupuncture or chiropractic. Often, the service offerings changed through the course of the program to meet the changing needs of the clients. While some populations appreciated participating in activities that related to their cultural heritage, other populations were more interested in new activities, such as Zumba. Preliminary studies conducted by this investigative team found that conventional health providers regard non-traditional providers as important for (a) engaging difficult to reach populations, (b) making patients more comfortable with formal services, and (c) improving patient outcomes.

The evaluation measures did not directly assess the use of non-traditional services within each program, or the impact these services had on clients. As a result, LACDMH and the evaluation team developed the Non-Traditional Services Focus Group to allow each provider to describe their approach to non-traditional services and their impact on clients. Hour-long focus groups were conducted by members of the evaluation team and between 1 and 5 staff members from each provider. Additionally, staff completed a brief survey on the types of services offered during outreach and engagement and ongoing services. To analyze the use of non-traditional services offered through the ISM programs, the activities were categorized based on accepted categories for complementary, alternative, and integrative medicine'. Included in the current report is a preliminary analysis of the surveys; the evaluation team is currently analyzing data from the focus groups.

The previously published categories were slightly

adapted to fit the activities provided by ISM providers. <sup>7</sup> Types of complementary and alternative medicine. (n.d.). In University of Rochester Medical Center Health Encyclopedia. Retrieved from

http://www.urmc.rochester.edu/Encyclopedia/Content.a

spx?ContentTypeID=85&ContentID=P00189

"Traditional Alternative Medicine" (TAM) includes acupuncture, Korean spa (jimjil-bang), and spiritual blessings. "Body" included physical activities and healing touch, such as yoga, Zumba, massage, and chiropractic. "Diet and Herbs" included traditional herbal medicine, as well as cooking classes and nutrition classes. "Mind" emphasized the connection between mind and body and included traditional activities such as meditation and biofeedback as well as educational classes. "Senses" included activities that use the senses to improve overall health, such as art, dance, music, poetry, and visualization. Finally, "Social" included activities designed to build a community and clients' social networks, such as support groups, retreats, and social clubs.

During outreach and engagement, providers were most likely to offer TAM, Body or Senses activities. As the programs continued, they offered a greater variety of complementary medicine. While Body and Senses activities remained very popular, Mind activities were also implemented. Although some providers offered meditation and biofeedback, a majority of ISM providers offered educational classes, such as ESL, computer courses, and citizenship classes.

The table below shows the percentage of providers who offered each type of non-traditional service during the outreach and engagement phase (O&E) or after enrollment (AE).

Types of Non-Traditional Services Offered									
Service	% of Providers O&E	% of Providers AE							
Traditional	71.4%	64.3%							
Body	71.4%	100.0%							
Diet and Herbs	21.4%	64.3%							
Mind	35.7%	85.7%							
Senses	71.4%	92.9%							
Social	42.9%	71.4%							

### **Next Steps**

The evaluation team will continue to analyze responses from the Non-Traditional Focus Groups to describe the specific impact and benefit that non-traditional services had on clients and their health outcomes. Additionally,

analyses will determine how providers selected non-traditional services and how they integrated them into their physical and mental health service offerings. These analyses will help better describe the challenges to integrating non-traditional services within a mental and physical health care setting, and develop lessons learned or promising practices for overcoming these barriers. The evaluation team will use data from the focus groups to triangulate with other evaluation data, including the Social Network Analysis, and the

Integrated Treatment Tool. For example, half of the ISM programs listed non-traditional providers in their social network surveys, which may be indicative of the degree to which these providers are integrated partners or simply referrals or outreach and engagement.

### ISM WEIGHTED RUBRIC

Due to the focus on cultural competency, there is an added emphasis in the ISM model rubric on social support and success in reaching the target population. Excluded from the ISM rubric are quality of life indicators such as incarcerations and emergency service use as they were not common at the baseline among ISM clients. The weighting reflects the relative importance of each level, domain, and sub-domain, and was developed by the DMH Model Leads and the UREP Liaisons.

Level	Domain	Sub-domain	Weighting
Client Level	Quality of Care	Mental Health Outcomes	29%
60%	40%	Physical Health Outcomes	20%
		Substance Abuse Outcomes	15%
		Physical Health Labs (screening)	8%
		Cultural Competency	28%
		TOTAL:	100%
	Quality of Life	Employment/Volunteer/School	10%
	40%	Housing (How many housed)	10%
		Stigma	45%
		Social Support	35%
		TOTAL:	100%
	Client Satisfaction	Client Satisfaction	100%
	20%	TOTAL:	100%
Program Level	Data Compliance	Data Compliance	100%
40%	11%	TOTAL:	100%
	Access to Care	Clients receive desired care	80%
	26%	Client Flow	20%
		TOTAL:	100%
	Staffing	Staff Satisfaction	100%
	6%	TOTAL:	100%
	Integration	Experience of Integration	25%
	26%	Service Integration	75%
		TOTAL:	100%
	Outreach & Engagement	Client Engagement	50%
	31%	Success in reaching target population	50%
		TOTAL:	100%

### ISM ENROLLMENT AND DISCHARGE

To date, 1,719 adult clients (431 in 2012, 944 in 2013 and 344 in the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2014) have enrolled in INN ISM programs. New client enrollment in services peaked around the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2013 (16.1% and 16.1%, respectively). Across all ISM providers, enrollment rates were highest at Kedren Community Health Center, Alma Family Services, and Tarzana Treatment Center.

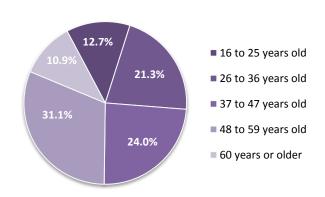
	Enrollment by ISM Provider										
		20	12			20	13		2014		Total
	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	Total
African Immigrant and African American ISM Providers											
Kedren	1	0	31	46	42	34	45	29	24	8	260
UMMA/Weber	0	0	0	8	42	51	11	13	10	13	148
American Indian and Alaskan Nat	ive ISM F	Provider									
UAII	0	17	12	14	10	16	17	28	14	31	159
Asian and Pacific Islander ISM Pro	oviders										
APHCV/Pacific Clinics	0	0	4	17	6	10	7	8	4	9	65
Korean ISM	0	3	2	6	8	9	21	15	11	7	82
PACS	0	2	7	8	20	17	6	13	18	9	100
SSG – API Alliance	0	1	1	1	1	1	2	1	2	0	10
Eastern European and Middle Eas	stern ISN	1 Provide	rs								
Didi Hirsch	0	0	3	16	42	12	16	10	11	5	115
IMCES	0	4	6	11	10	8	12	8	6	12	77
Jewish Family Service	0	1	12	15	15	16	7	15	4	7	92
Latino ISM Providers											
Alma Family Services	0	1	10	23	26	33	21	33	27	30	204
LACGC/Barbour & Floyd	0	0	11	20	18	11	5	6	8	4	83
St. Joseph Center	0	17	39	17	7	11	10	12	9	5	127
Tarzana Treatment Center	0	0	21	23	30	47	9	11	15	41	197
Total	1	46	159	225	277	276	189	202	163	181	1719

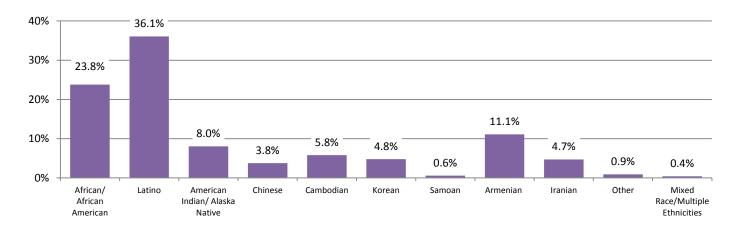
Also, to date, a total of 690 clients have been discharged from INN ISM programs. Discharge rates were the highest for UAII, Tarzana Treatment Center, and Kedren Community Health Center. While specific discharge trends over time vary by ISM provider, generally speaking, discharge tended to the highest during the 4<sup>rd</sup> quarter of 2013 and the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2014 (80.2% of all discharged clients). The most common discharge reasons for ISM clients were non-compliance and completing or graduating from program.

Discharge by ISM Provider								
		20	13		20	Total		
	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	TOLAI	
African Immigrant and African American ISM Providers								
Kedren	0	3	0	86	22	25	124	
UMMA/Weber	0	0	0	15	30	4	49	
American Indian and Alaskan Native ISM Prov	vider							
UAII	3	6	10	17	20	21	77	
Asian and Pacific Islander ISM Providers								
APHCV/Pacific Clinics	0	0	5	3	2	3	13	
Korean ISM	0	6	3	1	7	7	24	
PACS	0	0	15	1	2	10	28	
SSG – API Alliance	0	0	0	0	0	0	0	
Eastern European and Middle Eastern ISM Pro	oviders							
Didi Hirsch	2	5	8	9	22	15	61	
IMCES	0	0	14	7	3	10	34	
Jewish Family Service	1	1	0	7	19	5	33	
Latino ISM Providers								
Alma Family Services	0	0	13	1	55	0	69	
LACGC/Barbour & Floyd	0	0	0	0	2	49	51	
St. Joseph Center	0	0	20	0	10	5	35	
Tarzana Treatment Center	5	5	12	33	4	21	117	
Total	11	26	100	180	198	175	690	

### **DEMOGRAPHICS**

ISM clients were most likely to be between the ages of 37 and 59 (55.1%). Clients were also most likely to be Latino (36.1%) or African/African American (23.8%). Since all ISM providers targeted specific ethnic communities, no ISM clients were White. ISM clients were more likely to be females (64.9%); 35.1% were males and one client identified as transsexual.





### **MEASURES COMPLETION**

Completion rates for the baseline, six month and twelve month assessments can be found in the table below. In general, clinician completion rates were higher for the mental health measures—IMR and MORS—compared to the Physical Health Indicators. Because there are many reasons why providers could not complete some assessments at scheduled time points, the completion goal was to have each measure completed for 80% of clients at each time point. Several providers reached this goal as shown in the table below.

ISM Measures Completion										
	Client	Self-Assess	ment	Clinici	Clinician Mental Health			Physical Health Indicators		
			12	12					12	
	Baseline	6 month	month	Baseline	6 month	month	Baseline	6 month	month	
African Immigrant and African American ISM Providers										
Kedren	61.2%	28.1%	14.5%	60.0%	24.1%	14.5%	7.3%	4.0%	0.0%	
UMMA/Weber	77.0%	64.6%	61.3%	77.0%	68.5%	58.8%	98.6%	90.8%	82.5%	
American Indian and Alaskar	n Native ISM	l Provider								
UAII	84.3%	83.0%	90.7%	88.7%	88.7%	93.0%	76.1%	81.1%	83.7%	
Asian and Pacific Islander ISN	<b>M</b> Providers									
APHCV/Pacific Clinics	89.2%	75.5%	74.3%	90.8%	75.5%	68.6%	90.8%	86.8%	62.9%	
Korean ISM	89.0%	73.0%	66.7%	98.8%	84.1%	66.7%	87.8%	68.3%	52.4%	
PACS	69.0%	43.2%	12.2%	68.0%	51.4%	22.0%	58.0%	52.7%	63.4%	
SSG – API Alliance	70.0%	77.8%	83.3%	90.0%	88.9%	83.3%	80.0%	77.8%	83.3%	
Eastern European and Middl	e Eastern IS	M Provider	S							
Didi Hirsch	93.0%	78.9%	63.5%	97.4%	84.2%	71.2%	79.1%	71.6%	61.5%	
IMCES	50.6%	46.6%	50.0%	75.3%	53.4%	53.6%	61.0%	39.7%	42.9%	
Jewish Family Service	71.7%	48.8%	37.0%	68.5%	51.3%	42.6%	54.3%	56.3%	53.7%	
Latino ISM Providers										
Alma Family Services	81.4%	61.3%	31.2%	90.2%	64.0%	24.7%	96.6%	57.3%	27.3%	
LACGC/Barbour & Floyd	79.5%	75.0%	35.6%	94.0%	83.3%	49.2%	80.7%	70.8%	35.6%	
St. Joseph Center	67.7%	67.3%	73.9%	66.9%	67.3%	73.9%	73.2%	72.6%	73.9%	
Tarzana Treatment Center	79.7%	78.3%	73.4%	82.7%	81.4%	70.9%	90.9%	79.1%	72.2%	

### ISM STAFFING AND INTEGRATION BY PROVIDER

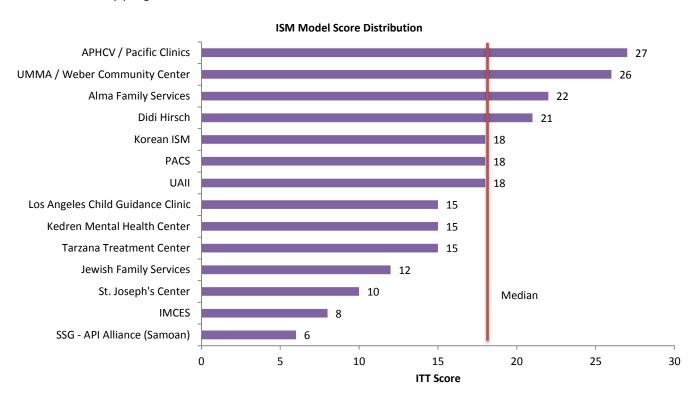
### **Integrated Treatment Tool (ITT)**

The evaluation team conducted initial site visits at all 24 INN programs in 2013 in an effort to understand what is being changed as programs integrate mental health, physical health, and substance use services, and how change is occurring – as well as facilitators and barriers to change. The evaluation team used the Integrated Treatment Tool (ITT) as a guiding framework and index of integration. Between September and October of 2014, follow up ITT phone interviews were conducted with each ISM program. Interview participants were ISM staff who could speak to both the clinical and administrative components of each program. The goal of the follow up interviews was to learn how programs had changed since the initial site visit and identify any continued barriers to integration or additional lessons learned. Please see the Integrated Treatment Tool Section for more information and the overall findings across models.

Close-ended questions during the phone interview were derived from the Integrated Treatment Tool as a guiding framework and index of integration. The following eight domains were assessed for ISM programs. Please see Appendix B for the specific anchor statements within each domain.

- 1) Integrated approach
- 2) Policies and procedures
- 3) Peer support
- 4) Care coordination
- 5) Assessing effectiveness
- 6) Interdisciplinary communication
- 7) Integrated health information/technology
- 8) Organization-wide training

All domains consist of dichotomized statements that are either true or not true of each program. Out of a possible 30 points, the lowest score was 6, and the highest score was 27. The median was 17. Below is the breakdown of the overall ITT scores by program within the ISM model.



#### Staff Satisfaction

The Staff Satisfaction survey was administered electronically in August 2014. The survey asked staff to report on various aspects of their INN program, including service integration, comfort treating clients with various diagnoses, program capabilities, and training. Items on the survey make up two primary scales: Overall Satisfaction and Satisfaction with Integration. All staff within each agency or partnering agency who work with INN clients were asked to complete the survey. Overall, 173 ISM staff members completed the survey.

### **Overall Satisfaction Scale**

The Overall Satisfaction scale includes six items that assess staff members' satisfaction with their personal ability and their program's ability to address the mental health, physical health, and substance use needs of clients. The proportion of staff who responded "Agree" or "Strongly Agree" to each of the items can be found in the table below. Although the responses from all providers are displayed below, only providers who had five or more completed surveys were included in the rubric analysis; all providers except JFS had at least five completed surveys. Overall, respondents from each program were highly satisfied. Overall, it appears that staff were least satisfied with their

program's ability to address the substance use needs of clients. ISM staff seemed the most satisfied with their own ability to handle the mental health or psychosocial needs of their clients.

	ISM Overall Staff Satisfaction % who Agree or Strongly Agree									
ISM Provider	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6				
African Immigrant and Af	frican American IS	M Providers								
Kedren (N=9)	100.0%	50.0%	62.5%	75.0%	50.0%	12.5%				
UMMA/Weber (N=12)	100.0%	100.0%	100.0%	91.7%	72.7%	54.5%				
American Indian and Alas	skan Native ISM Pi	rovider								
UAII (N=21)	100.0%	66.7%	56.2%	95.2%	76.2%	85.0%				
Asian and Pacific Islander	r ISM Providers									
APHCV/Pacific Clinics (N=12)	88.9%	50.0%	90.0%	100.0%	90.9%	75.0%				
Korean ISM (N=20)	100.0%	75.0%	58.3%	100.0%	73.7%	65.0%				
PACS (N=11)	70.0%	50.0%	57.1%	90.0%	72.7%	87.5%				
SSG – API Alliance (N=7)	71.4%	66.7%	83.3%	71.4%	85.7%	66.7%				
Eastern European and M	iddle Eastern ISM	Providers								
Didi Hirsch (N=15)	100.0%	100.0%	92.3%	100.0%	93.3%	100.0%				
IMCES (N=6)	100.0%	100.0%	66.7%	100.0%	80.0%	100.0%				
Jewish Family Service (N=4)	100.0%	0.0%	100.0%	75.0%	25.0%	0.0%				
Latino ISM Providers										
Alma Family Services (N=16)	100.0%	91.7%	100.0%	100.0%	100.0%	75.0%				
LACGC/Barbour & Floyd (N=14)	76.9%	60.0%	91.7%	92.3%	91.7%	83.3%				
St. Joseph Center (N=9)	100.0%	83.3%	100.0%	88.9%	88.9%	100.0%				
Tarzana Treatment Center (N=17)	100.0%	91.7%	76.9%	100.0%	82.4%	87.5%				

- 1. I am satisfied with my ability to address the mental health and/or psychosocial needs of my clients.
- 2. I am satisfied with my ability to address the physical health needs of my clients.
- 3. I am satisfied with my ability to address the substance use issues of my clients.
- 4. I am satisfied with my program's ability to address the mental health and/or psychosocial needs of clients.
- 5. I am satisfied with my program's ability to address the physical health needs of clients.
- 6. I am satisfied with my program's ability to address the substance use issues of clients.

### Integration Scale

The Integration scale includes five items that assess staff satisfaction with the integration of their program, including communication between providers, and service offerings. The proportion of staff who responded "Agree" or "Strongly Agree" to each of the items can be found in the table below. Although the responses from all providers are displayed below, only providers who had five or more completed surveys were included in the rubric analysis: all providers except JFS had at least five completed surveys. Overall, respondents from each program were highly satisfied. Staff were least likely to be satisfied with communication between mental and physical health providers. Most staff believed that having integrated mental and physical health services is helpful to clients.

	ISM Staff Satisfaction with Integration									
			Agree or Strongly	/ Agree						
ISM Provider	Item 1	Item 2	Item 3	Item 4	Item 5					
African Immigrant and Af	rican American IS	M Providers								
Kedren (N=9)	62.5%	50.0%	25.0%	87.5%	25.0%					
UMMA/Weber (N=12)	33.3%	81.8%	81.8%	100.0%	83.3%					
American Indian and Alas	skan Native ISM P	rovider								
UAII (N=21)	66.7%	90.5%	90.0%	95.0%	81.0%					
Asian and Pacific Islander	ISM Providers									
APHCV/Pacific Clinics (N=12)	90.9%	91.7%	100.0%	100.0%	83.3%					
Korean ISM (N=20)	55.0%	78.9%	89.5%	100.0%	80.0%					
PACS (N=11)	80.0%	88.9%	63.6%	100.0%	90.9%					
SSG – API Alliance (N=7)	83.3%	100.0%	85.7%	100.0%	42.9%					
Eastern European and M	iddle Eastern ISM	Providers								
Didi Hirsch (N=15)	86.7%	93.3%	86.7%	100.0%	100.0%					
IMCES (N=6)	33.3%	80.0%	100.0%	100.0%	100.0%					
Jewish Family Service (N=4)	33.3%	50.0%	50.0%	75.0%	75.0%					
Latino ISM Providers										
Alma Family Services (N=16)	93.7%	100.0%	100.0%	100.0%	93.7%					
LACGC/Barbour & Floyd (N=14)	78.6%	100.0%	92.3%	100.0%	85.7%					
St. Joseph Center (N=9)	66.7%	100.0%	100.0%	100.0%	100.0%					
Tarzana Treatment Center (N=17)	53.3%	76.9%	94.1%	100.0%	100.0%					

- 1. In my experience, I am generally satisfied with communication between physical health and mental health providers.
- 2. I am able to provide or arrange the kinds of services I want for my clients at this program.
- 3. My program is able to provide or arrange the kinds of services I want for my clients.
- 4. Having mental health services and physical health services integrated is helpful to clients in this program.
- 5. I am satisfied with how my program is being implemented.

### ISM COST-EFFECTIVENESS BY PROVIDER

There were variations in the costs associated with INN services by provider. The cost analysis for ISM programs looked primarily at INN service costs, community outreach services (COS), and community support services (CSS). Non-INN service costs such as inpatient hospitalizations and ER visits were not a large cost for ISM clients. Of all ISM providers, LA Child Guidance had the highest average INN services cost (\$10,256/client), and SSG - API Alliance had the highest COS and CSS costs (\$9,922 and \$16,275, respectively per client enrolled). IMCES and the Korean ISM had the greatest increase in Quality Adjusted Life Years (QALYs) as estimated based on the PROMIS Global Health over the first year of services (0.14 and 0.10, respectively). Alma Family Services had the lowest cost per QALY (\$72,310). See Appendix A for a full breakdown of cost and QALYs by provider.

### ISM EVALUATION OUTCOMES

In order to evaluate ISM client health outcomes, clients were asked to complete the Integrated Self-Assessment within 30 days of enrollment, and follow-up assessments every three months. The Integrated Self-Assessment's main components include the Patient Reported Outcomes Measurement System's (PROMIS) Global Health scale, the Creating Healthy Outcomes: Integrated Self-Assessment Supplement (CHOIS), the Physical Health and Behavior survey, and the PROMIS-Derived Substance Abuse scale. Additionally, in order to measure clinician perception of client recovery and client's current degree of recovery, clinicians were asked to complete the Illness Management and Recovery (IMR) scale as well as the Milestones of Recovery Scale (MORS) quarterly. To better assess physical health, clinicians were asked to complete the Physical Health Indicators Screener semi-annually, which consists of indicators of health that should be collected in routine primary care such as BMI, blood pressure, and risk/presence of chronic conditions such as diabetes, cardiopulmonary disease, asthma, tuberculosis, emphysema, and sexually transmitted disease.

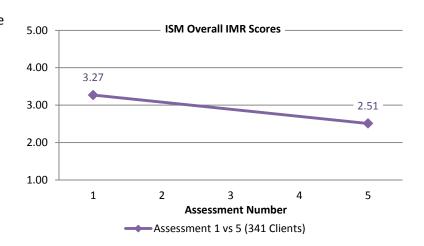
#### Mental Health Outcomes

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR scale and subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of ISM clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale, and the percentage of ISM clients who maintained "healthy" ratings or experienced clinically meaningful improvements on the CHOIS subscales.

### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across all ISM clients with matched assessments, there was a significant decrease in overall IMR scores twelve months after enrollment compared to baseline. This indicates that, on average, ISM clients made notable progress towards their



recovery after enrolling in services. A majority of ISM clients with matched assessments had a clinically meaningful improvement in their overall IMR rating twelve months (76.2%) after enrollment.

### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

Across all ISM clients with matched assessments, there was a significant improvement in MORS ratings twelve months after enrollment compared to baseline. At baseline, ISM clients were most likely to be categorized in the poorly coping/engaged stage of recovery (56.6%). At the twelve month assessment, ISM clients were most likely to be in the coping/rehabilitating stage of recovery (39.5%). This indicates that, in general, clinicians witnessed improvement in clients' recovery over the first year of services. There was a clinically meaningful improvement in client recovery for 62.1% of all ISM clients at the twelve month assessment.

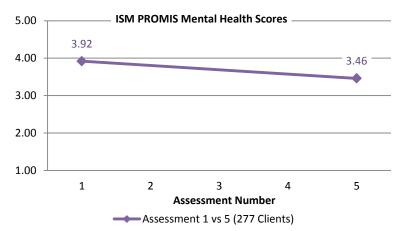
ISM MORS Ratings				
Rating	Stage of Recovery	Assessment 1 vs. 5 (N=309)		
1	Extreme Risk	0.3%	0.0%	
2	High Risk/Not Engaged	1.6%	1.0%	
3	High Risk/Engaged	17.5%	4.2%	
4	Poorly Coping/Not Engaged	5.5%	3.2%	
5	Poorly Coping/Engaged	56.6%	30.1%	
6	Coping/Rehabilitating	15.2%	39.5%	
7	Early Recovery	3.2%	17.8%	
8	Advanced Recovery	0.0%	4.2%	

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

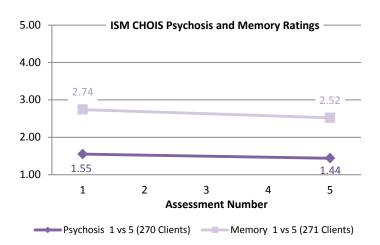
PROMIS Mental Health subscale scores decreased significantly from the baseline to the twelve month assessment. This suggests that ISM clients experienced significant improvements in mental health after enrolling in services. Across all ISM providers, 51.6% of clients reported a clinically meaningful improvement in their mental health twelve months after enrolling in INN services.

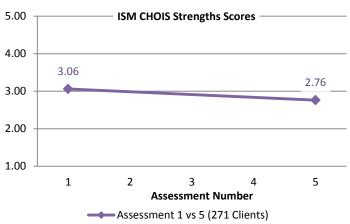


### Creating Healthy Outcomes: Integrated Self-Assessment

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Across all ISM clients with matched assessments, there was a statistically significant improvement in scores on each of the three CHOIS subscales - Psychosis, Memory/Cognitive Impairment, and Strengths - from the baseline to the twelve month assessment (see charts below). This indicates that, on average, ISM clients had fewer negative symptoms and improved resiliency after enrolling in services. Many ISM clients had clinically meaningful improvements or maintained healthy scores (average ratings less than 2) twelve months after enrollment (Strengths: 47.2%, Psychosis: 78.5%, and Memory/Cognitive Impairment: 43.9%).



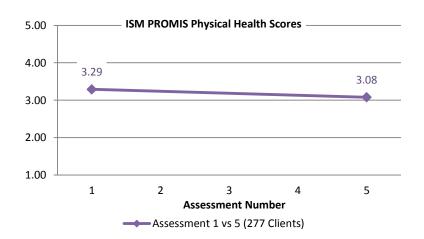


### **Physical Health Outcomes**

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings.

### PROMIS Global Health - Physical Health Subscale

PROMIS Physical Health subscale scores decreased significantly from the baseline to the twelve month assessment. This suggests that ISM clients experienced significant improvements in physical health after enrolling in services. Across all ISM providers, 38.3% of clients reported a clinically meaningful improvement in their physical health twelve months after enrolling in INN services.



### **Physical Health Indicators**

Clinicians completed the Physical Health Indicators survey by recording the frequency and outcome of typical health screening procedures, including: height, weight, blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in Innovation services. Among ISM clients, the most common screening was for BMI and high blood pressure, with approximately 60% of all clients being screened at least once in twelve months. Not shown in the graph, screening of clients at the baseline only for tuberculosis, asthma, and emphysema was also tracked. Screening rates for these conditions was much lower, as it was often only done for clients presenting symptoms.

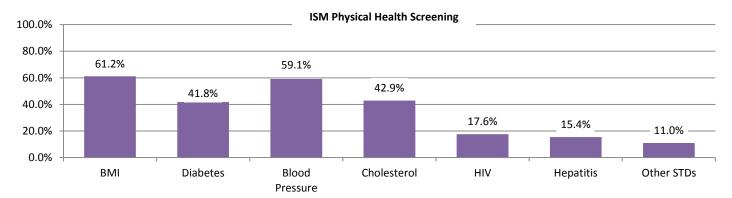


Chart provides the percentage of all ISM clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged Innovation clients are included in the calculation of percentages, N=1,719.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate their Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was a significant increase in BMI from baseline to twelve months for clients with matched assessments. While weight gain is not an intended or desired outcome, the increase in BMI may be an indication that clients are receiving new medications or taking their existing medications more consistently, as many medications (especially antipsychotics) are known to cause weight gain. However, from baseline to twelve months, many clients maintained a normal BMI (20.6%) and 7.0% had a clinically meaningful improvement.

ISM Body Mass Index (BMI) Categorization					
Assessment # Underweight Normal Weight Overweight Obese					
Matched Sample Assessment 1 vs. 5 (N=243)					
1 1.2% 27.2% 30.5% 41.2%					
5	0.8%	23.5%	32.5%	43.2%	

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

For clients with matched assessments, there was no significant change in risk for hypertension based on blood pressure. From baseline to twelve months, many clients maintained a healthy blood pressure (23.3%). Others had a clinically meaningful improvement during the same time period (23.7%).

ISM Blood Pressure Categorization					
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis					
Matched Sample Assessment 1 vs. 5 (N=245)					
1	35.5%	44.9%	13.9%	2.9%	2.9%
5	37.1%	39.6%	18.8%	3.3%	1.2%

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was a significant increase in diabetes risk from baseline to twelve months after enrollment for ISM clients with matched assessments. However, from baseline to twelve months, many clients maintained normal glucose and A1C levels (35.2%) and 8.6% had a clinically meaningful improvement.

ISM Diabetes Categorization					
Low Blood Assessment # Sugar Normal High Normal Pre-Diabetic Diabetic					
Matched Sample Assessment 1 vs. 5 (N=105)					
1	0.0%	33.3%	19.0%	21.0%	26.7%
5	1.0%	28.6%	13.3%	25.7%	31.4%

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

Compared to baseline, there was no significant change in risk for heart disease based on cholesterol level twelve months after enrollment for ISM clients. However, from baseline to twelve months, many clients maintained optimal or near optimal cholesterol levels (32.8%). Others had a clinically meaningful improvement from baseline to twelve months (18.0%).

ISM Cholesterol Categorization					
Assessment #	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk
Matched Sample Assessment 1 vs. 5 (N=122)					
1	9.0%	32.8%	13.9%	40.2%	4.1%
5	11.5%	36.1%	9.0%	37.7%	5.7%

#### Substance Use Outcomes

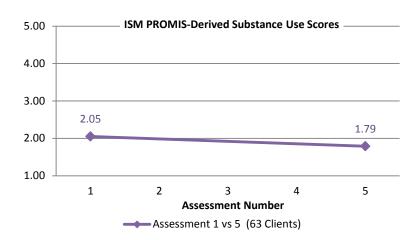
Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically

meaningful improvements on the PROMIS-Derived Substance Use scale, and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or substance use.

There was a significant reduction in PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment for ISM clients with matched assessments. Twelve months after enrollment, 20.6% of ISM clients had a clinically

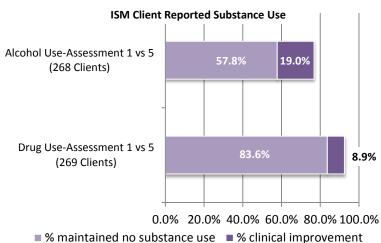


meaningful decrease in negative consequences associated with alcohol and/or drug use. Additionally, 47.6% of ISM clients with matched assessments maintained low Substance Use ratings (average ratings of 1).

#### Client Reported Substance Use Items

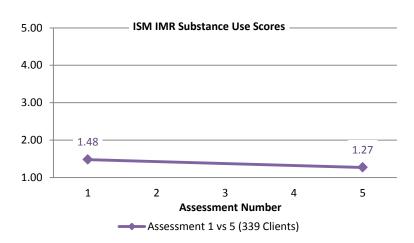
Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey.

There was a significant reduction in alcohol consumption reported by ISM clients with matched assessments twelve months after enrollment compared to baseline. There was also a significant reduction in drug use from the baseline to the twelve month assessment. The majority of clients with matched assessments maintained no alcohol or other drug use from baseline to twelve months (57.8%, 83.6% respectively). During the same time period, other clients reported a clinically meaningful reduction in their alcohol use (19.0%) or drug use (8.9%).



### Clinician Rated Substance Use: IMR Substance Use Subscale

For ISM clients with matched assessments, there was a significant decrease in IMR Substance Use ratings twelve months after enrollment compared to baseline. This indicates that clinicians observed that ISM clients experienced less functional impairment due to alcohol and/or other drug use twelve months after enrolling in INN services. Additionally, twelve months after enrollment, 12.4% of ISM clients experienced a clinically meaningful improvement.



## **Kedren Community Health Center**

### **African Immigrant/African American ISM**

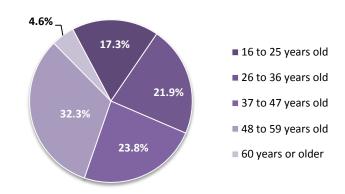
Kedren Community Health Center (Kedren) was founded in 1965 in response to the dire needs of residents in Central Los Angeles following the Watts Riots. After canvassing areas in Central Los Angeles the founders of Kedren determined that they needed to empower children and help parents by providing community-based psychiatric services and early childhood development services to alleviate some of the anxiety and illness caused by racial oppression and strife. The mission of Kedren remains one of providing culturally competent continuum of care services that are accessible, efficient, effective, and comprehensive, and that meet the mental health needs of children, youth, adults, and seniors that are persistently mentally ill. Kedren focuses on addressing individual needs toward restoring each consumer to his or her optimal level of functioning. Kedren has pioneered many data-driven programs including various co-occurring disorders programs, jail reintegration programs, and the Full Service Partnership. Kedren's goal is to provide integrated and holistic care delivered from a "do whatever it takes" approach to help the underserved recover from mental illness.

### ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS

To date, Kedren has enrolled 260 clients. Of these, 136 (52.3%) have been discharged from the program for any reason. Of the discharged clients, no clients met their treatment goals and were transitioned to a lower level of care.

Kedren clients are most likely to be between the ages of 26 and 59 (78.0%). Over half of clients are male (53.8%).

Kedren clients are most likely to identify as African/ African American (99.2%), with a small percentage of clients who identified themselves as Other Black (0.8%).



### **MENTAL HEALTH OUTCOMES**

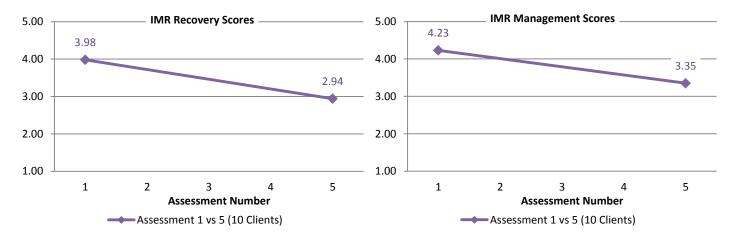
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across Kedren clients with matched assessments, there was a significant decrease in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 80.0% and 70.0% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, Kedren clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months, Kedren clients were significantly more likely to have family or friends involved in their treatment. Many clients increased the level of involvement of their family and friends in their treatment (77.8%) and the amount of time they spend with people outside their family (60.0%).

### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months for Kedren clients with matched assessments. The majority of Kedren clients had a clinically meaningful increase in MORS scores from baseline to twelve months (70.0%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first year of services.

Milestones of Recovery (MORS) Ratings				
Rating	Stage of Recovery	(10 CI	ients)	
1	Extreme Risk	0.0%	0.0%	
2	High Risk/Not Engaged	0.0%	0.0%	
3	High Risk/Engaged	60.0%	20.0%	
4	Poorly Coping/Not Engaged	10.0%	20.0%	
5	Poorly Coping/Engaged	10.0%	10.0%	
6	Coping/Rehabilitating	20.0%	20.0%	
7	Early Recovery	0.0%	30.0%	
8	Advanced Recovery	0.0%	0.0%	

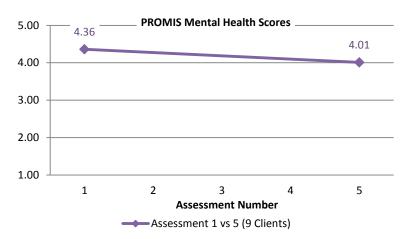
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, at the baseline assessment, 90.0% of clients with matched samples were engaged based on their MORS score. At the twelve month assessment, 80.0% of clients were engaged in their recovery.

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) - 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores decreased significantly from the baseline to the twelve month assessment for Kedren clients with matched assessments. Many clients also had a clinically meaningful improvement during that time (44.4%). This suggests that Kedren clients experienced significant improvements in mental health after enrolling in services.



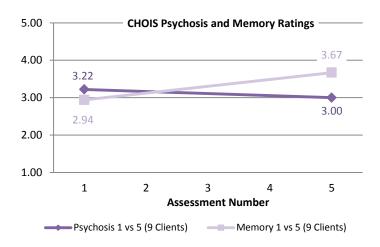
### **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

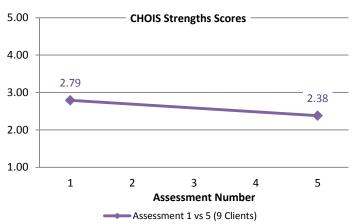
The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and

Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales did not change significantly from the baseline to the twelve month assessment. However, many Kedren clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (33.3%, 22.2% respectively).

Across Kedren clients with matched assessments, there was no significant change in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. The majority of Kedren clients maintained healthy scores or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (77.8%).



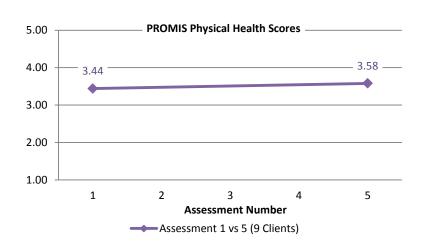


### PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

### **PROMIS Global Health – Physical Health Scale**

PROMIS Physical Health scores did not significantly change from the baseline to the twelve month assessment. Clinically meaningful improvement in physical health was seen for 11.1% of Kedren clients with matched assessments from baseline to twelve months.



### **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of Kedren clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

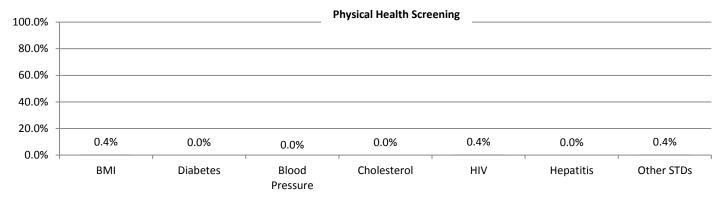


Chart provides the percentage of all Kedren clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged Kedren clients are included in the calculation of percentages, N=260.

### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC). There was not enough data to analyze change from baseline to the twelve month assessment.

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension. There were no matched assessments to analyze change from baseline to twelve months.

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories. If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category. There were no matched assessments to analyze change from baseline to twelve months.

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category. If a client was categorized at different levels of risk based on their HDL and LDL levels, they

were placed into the higher category. There were no matched assessments to analyze change from baseline to twelve months.

### SUBSTANCE USE

Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale, and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

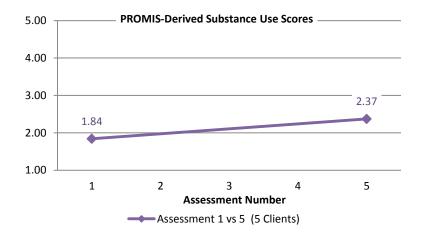
The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or substance use.

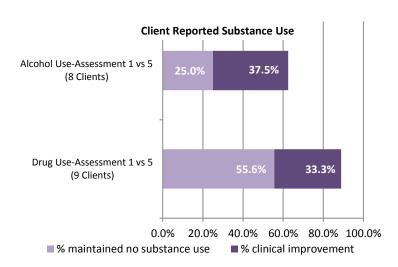
There were no significant changes on the PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment for Kedren clients with matched assessments. Twelve months after enrollment, 20.0% of Kedren clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or other drug use and 40.0% maintained a healthy score.



Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey.

There was no significant change in alcohol consumption or illegal drug use twelve months after enrollment compared to baseline. Some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months

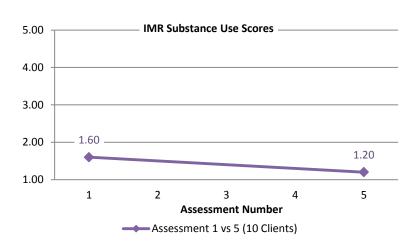




(37.5%), and other clients maintained no alcohol use from baseline to twelve months (25.0%). Some clients had a clinically meaningful reduction in illegal drug use from baseline to twelve months (33.3%), and many clients maintained no illegal drug use from baseline to twelve months (55.6%).

### **Clinician Reported Substance Use: IMR Substance Use Subscale**

There was no significant change in IMR Substance Use scores for Kedren clients with matched assessments from baseline to twelve months. However, some clients had a clinically meaningful reduction in substance use scores (30.0%) from baseline to twelve months.



### **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, or enrollment in school, status of housing, mental health stigma, and levels of social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments included those with: strong social support, no mental health stigma, or current employment.

#### Constructive Activities

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, 10.0% of Kedren clients began or maintained one of these activities.

Constructive Activities				
	Percentage of clients who maintained or began the activity			
Kedren Assessment 1 vs. 5				
Employment	11.1% (N=9)			
Volunteer	0.0% (N=10)			
School	0.0% (N=9)			
Any Activity	10.0% (N=10)			

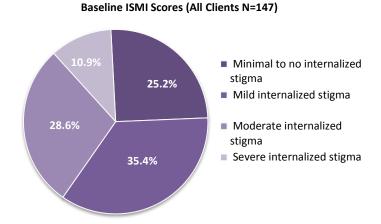
### Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. There were no matched assessments to analyze change from baseline to twelve months.

### **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was a significant increase in internalized stigma ratings from baseline to twelve months after



enrollment for Kedren clients with matched assessments. No Kedren clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) or maintained minimal to no internalized stigma.

### **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 33.3% (N=12) of Kedren clients had high overall satisfaction, indicated by a score of four or greater.

Client Satisfaction with Services			
	Percent who increased or maintained high satisfaction		
	Assessment 3		
I was able to get all the services I thought I needed.	66.7% (N=12)		
I felt comfortable asking questions about my			
treatment and medication.	75.0% (N=12)		
Staff were sensitive to my cultural background (race,			
religion, language, etc.).	75.0% (N=12)		
This program meets both my mental and physical			
health care needs.	50.0% (N=12)		
My beliefs about health and well-being were			
considered as part of the services that I received			
here.	50.0% (N=12)		

### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 75.0% of Kedren clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background and 50.0% of clients "Agreed" or "Strongly Agreed" that staff considered their beliefs about health and well-being as part of the services.

#### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Most Kedren clients (75.0%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Most Kedren clients (66.7%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Integration**

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 50.0% of Kedren clients "Agreed" or "Strongly Agreed" with this item.

## **UMMA/Weber Community Center**

### **African Immigrant/African American ISM**

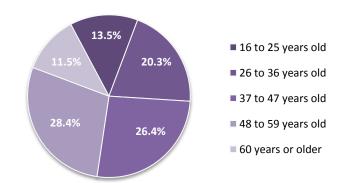
The mission of the University Muslim Medical Association Community Clinic (UMMA) is to promote the well-being of the underserved by providing access to high quality healthcare for all, regardless of ability to pay. It is their mission to: 1) cultivate and expand a robust network of collaborative relationships with individuals, organizations, and institutions among the community at large; and 2) to pursue opportunities for interaction and understanding between Muslim Americans and people of all other cultural, economic, and religious backgrounds. The UMMA mission is further supported by their vision, which is that they are part of a larger network of institutions addressing the health and wellbeing of the underserved and indigent, mindful of the cultural, spiritual, social and economic realities that impinge upon them and the traditional barriers to accessing care. Since opening over 15 years ago, UMMA has been actively engaged in community partnerships and interagency collaborations. They are currently partnered with Weber Community Center to implement the ISM service model.

### ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS

To date, UMMA/Weber has enrolled 148 clients. Of these, 49 (33.1%) have been discharged from the program for any reason. Of the discharged clients, 5 (10.2%) met their treatment goals and were transitioned to a lower level of care.

UMMA/Weber clients are most likely to be between the ages of 26 and 59 (75.1%). Over half of clients are female (66.2%).

All UMMA/Weber clients identify as African/ African American (100.0%)



### **MENTAL HEALTH OUTCOMES**

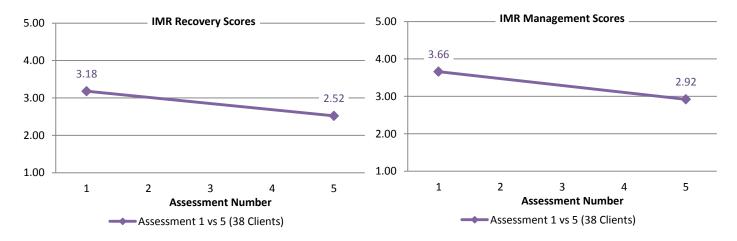
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across UMMA/Weber clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 81.6% and 63.2% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, UMMA/Weber clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." Many clients increased the level of involvement of their family and friends in their treatment (40.5%) and the amount of time they spend with people outside their family (40.5%) from baseline to twelve months.

### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in average MORS scores from baseline to twelve months for UMMA/Weber clients with matched assessments. The majority of UMMA/Weber clients had a clinically meaningful increase in MORS scores from baseline to twelve months (64.3%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first year of services.

Milestones of Recovery (MORS) Ratings						
		Assessme	ent 1 vs. 5			
Rating	Stage of Recovery	(28 CI	ients)			
1	Extreme Risk	0.0%	0.0%			
2	High Risk/Not Engaged	3.6%	0.0%			
3	High Risk/Engaged	39.3%	3.6%			
4	Poorly Coping/Not Engaged	0.0%	3.6%			
5	Poorly Coping/Engaged	39.3%	39.3%			
6	Coping/Rehabilitating	17.9%	35.7%			
7	Early Recovery	0.0%	3.6%			
8	Advanced Recovery	0.0%	14.3%			

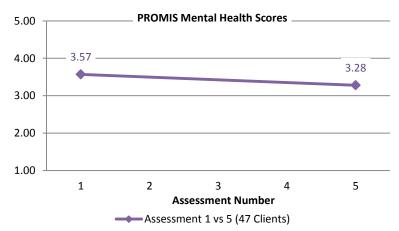
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, at the baseline assessment, 96.4% of clients with matched samples were engaged based on their MORS scores. At the twelve month assessment, the same percentage of clients (96.4%) were engaged in their recovery.

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores decreased significantly from the baseline to the twelve month assessment for UMMA/Weber clients with matched assessments. Several clients also had a clinically meaningful improvement during that time (38.3%). This suggests that UMMA/Weber clients experienced significant improvements in mental health after enrolling in services.

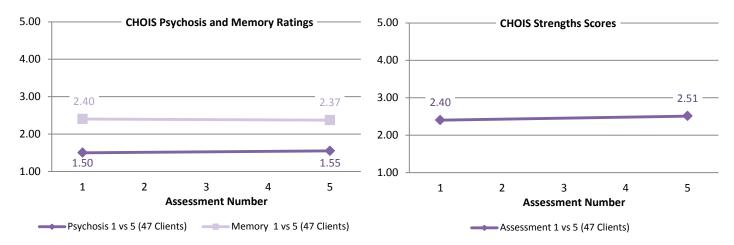


# **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales did not change significantly from the baseline to the twelve month assessment. However, many UMMA/Weber clients had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (63.8%, 42.5% respectively).

Across UMMA/Weber clients with matched assessments, there was no significant change in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. Many UMMA/Weber clients had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (44.7%).

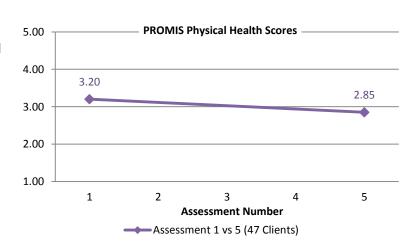


# PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# PROMIS Global Health – Physical Health Scale

PROMIS Physical Health subscale scores decreased significantly from the baseline to the twelve month assessment for UMMA/Weber clients with matched assessments. Clinically meaningful improvement in physical health was seen for 48.9% of UMMA/Weber clients with matched assessments from baseline to twelve months. This suggests that UMMA/Weber clients were experiencing significant improvements in physical health after enrolling in services.



#### **Physical Health Indicators**

Clinician-reported physical health items are captured on the Physical Health Indicators survey, which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of UMMA/Weber clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

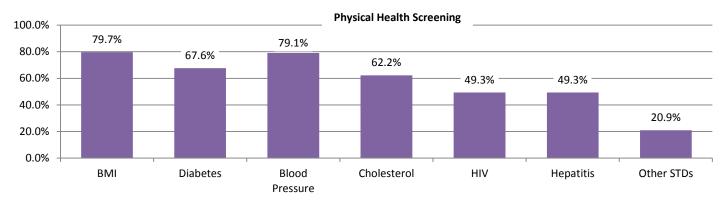


Chart provides the percentage of all UMMA/Weber clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged UMMA/Weber clients are included in the calculation of percentages, N=148.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment for clients with matched assessments. However, some clients had a clinically meaningful improvement in BMI from baseline to twelve months (4.7%). Other clients maintained a healthy BMI during the same time period (14.0%).

Body Mass Index (BMI) Categorization						
Assessment # Underweight Normal Weight Overweight Obese						
Matched Sample Assessment 1 vs. 5 (43 Clients)						
1 2.3% 20.9% 30.2% 46.5%						
5	2.3%	14.0%	37.2%	46.5%		

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in blood pressure categories twelve months after enrollment for clients with matched assessments. However, some clients had a clinically meaningful improvement in hypertension risk from baseline to twelve months (30.2%). Other clients maintained a healthy blood pressure level during the same time period (14.0%).

Blood Pressure Categorization							
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis							
Matched Sample	Matched Sample Assessment 1 vs. 5 (43 Clients)						
1	20.9%	46.5%	25.6%	2.3%	4.7%		
5	23.3%	48.8%	23.3%	2.3%	2.3%		

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no significant change in diabetes risk twelve months after enrollment for clients with matched assessments. However, some clients had a clinically meaningful improvement in diabetes risk from baseline to twelve months (6.7%). Many clients maintained a healthy A1C and glucose levels during the same time period (46.7%).

Diabetes Categorization						
Low Blood Sugar Normal High Normal Pre-Diabetic Diabetic						
Matched Sample	Matched Sample Assessment 1 vs. 5 (15 Clients)					
1	0.0%	40.0%	13.3%	20.0%	26.7%	
5	0.0%	46.7%	6.7%	20.0%	26.7%	

#### **Cholesterol**

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease twelve months after enrollment for clients with matched assessments. However, some clients had a clinically meaningful improvement in heart disease risk from baseline to twelve months (18.8%). Many clients maintained a healthy cholesterol level during the same time period (37.5%).

Cholesterol Categorization							
Near Optimal Borderline High Optimal Level Risk High Risk Very High Ris							
Matched Sample	Assessment 1 vs. 5	(16 Clients)					
1 18.8% 18.8% 12.5% 25.0% 25.0							
5	25.0%	18.8%	12.5%	18.8%	25.0%		

# **SUBSTANCE USE**

Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale, and the IMR Substance Use scale. Clients

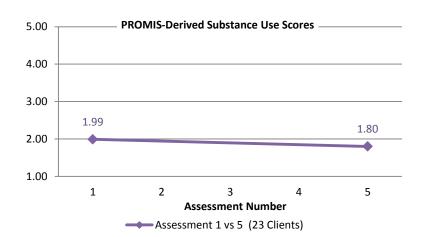
were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

There were no significant changes in PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment for UMMA/Weber clients with matched assessments. Twelve months after enrollment, 17.4% of UMMA/Weber clients had a clinically meaningful

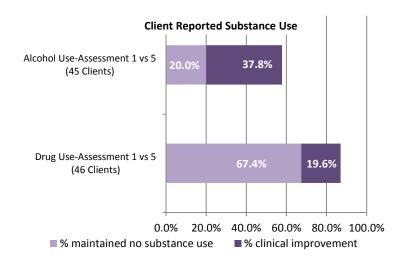


reduction in negative consequences associated with alcohol and/or drug use and 47.8% maintained a healthy score.

### **Client Reported Substance Use Items**

Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey.

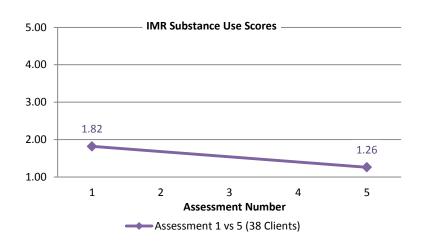
There was a significant decrease in alcohol consumption among UMMA/Weber clients with matched assessments but there was no significant change in illegal drug use twelve months after enrollment compared to baseline. As shown in the chart, some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (37.8%), and other clients maintained no alcohol use from baseline to twelve months (20.0%). Some clients had a clinically meaningful reduction in illegal drug use from baseline to twelve months



(19.6%), and the majority of clients maintained no illegal drug use from baseline to twelve months (67.4%).

# **Clinician-Reported Substance Use: IMR Substance Use Subscale**

UMMA/Weber clients with matched assessments had a significant decrease in IMR Substance Use scores from baseline to twelve months. From baseline to twelve months many clients had a clinically meaningful reduction in substance use scores (28.9%). This indicates that, on average, drugs and other alcohol were less likely to impact the lives of clients after twelve months of services.



### QUALITY OF LIFE

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, or enrollment in school, status of housing, mental health stigma, and levels of social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments included those with: strong social support, no mental health stigma, or current employment.

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months.

There were no significant changes in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, the majority of UMMA/Weber clients began or maintained one of these activities (70.2%).

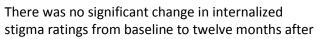
Constructive Activities			
Percentage of clients who maintained or began the			
UMMA/Weber Assessment 1 vs. 5			
Employment	43.5% (N=46)		
Volunteer	40.4% (N=47)		
School	19.5% (N=46)		
Any Activity	70.2% (N=47)		

### Housing

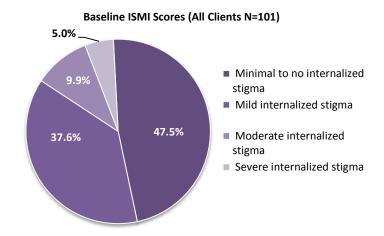
Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, few UMMA/Weber clients (3.9%) had been homeless during previous six months; as a result homelessness did not significantly decrease from baseline to 12 months. From baseline to twelve months 96.1% of clients' maintained housing, and 3.9% were homeless for fewer days.

### **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.



enrollment for UMMA/Weber clients with matched assessments. Of UMMA/Weber clients, 30.8% had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings).



#### **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 50.0% (N=12) of UMMA/Weber clients had high overall satisfaction, indicated by a score of four or greater.

Client Satisfaction with Services				
	Percent who increased or maintained high satisfaction			
	Assessment 3			
I was able to get all the services I thought I needed.	81.8% (N=11)			
I felt comfortable asking questions about my				
treatment and medication.	91.7% (N=12)			
Staff were sensitive to my cultural background (race,				
religion, language, etc.).	91.7% (N=12)			
This program meets both my mental and physical				
health care needs.	83.3% (N=12)			
My beliefs about health and well-being were				
considered as part of the services that I received				
here.	91.7% (N=12)			

### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 91.7% of UMMA/Weber clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background and 91.7% of clients "Agreed" or "Strongly Agreed" that staff considered their beliefs about health and well-being as part of the services.

#### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Most UMMA/Weber clients (91.7%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Most UMMA/Weber clients (81.8%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Integration**

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 83.3% of UMMA/Weber clients "Agreed" or "Strongly Agreed" with this item.

# United American Indian Involvement, Inc.

# **American Indian/Alaska Native ISM**

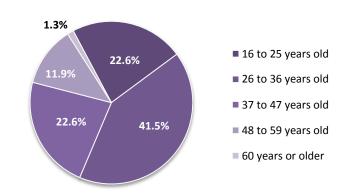
The United American Indian Involvement (UAII) mission is to provide quality services and advocacy to the American Indian communities residing within the State of California in a respectful manner with high regard for cultural values, Tribal affiliation, and spiritual and personal values of individuals. Established in 1974, UAII offers a variety of health and human services to American Indians and Alaskan Natives living throughout Los Angeles County. UAII has grown from a small community-based organization providing social services to the AI/AN living in the Skid Row area, to a multidisciplinary comprehensive service center addressing the multiple needs of AI/AN countywide. UAII functions as a point of access to health and social services for members of the AI/AN community who often feel that providers are not culturally sensitive to their needs. With native providers, educators, and case managers on staff, clients feel more comfortable discussing their health needs, disclosing information, and participating in various programs. UAII offers services to address a variety of community concerns, including: mental health, domestic violence/sexual assault, and alcohol and substance abuse, as well as offering traditional healing.

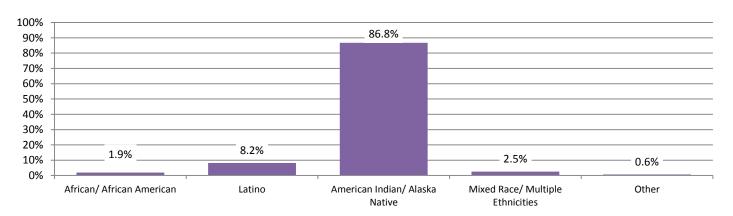
### **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, UAII has enrolled 159 clients. Of these, 77 (52.3%) have been discharged from the program for any reason. Of the discharged clients, 22 (28.6%) met their treatment goals and were transitioned to a lower level of care.

UAII clients are most likely to be between the ages of 26 and 36 (41.5%). The majority of clients are female (72.3%).

UAII clients are most likely to identify as American Indian/Alaska Native (86.2%).





# **MENTAL HEALTH OUTCOMES**

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the,

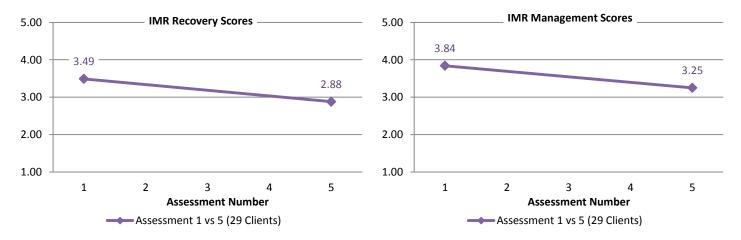
MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

# Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across UAII clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 79.3% and 48.3% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, UAII clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." Many UAII clients with matched assessments increased the level of involvement of their family and friends in their treatment (37.9%) and the amount of time they spend with people outside their family (35.7%) from baseline to twelve months.

# Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's

level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months for UAII clients with matched assessments. The majority of UAII clients had a clinically meaningful increase in MORS scores from baseline to twelve months (52.0%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first year of services.

Milestones of Recovery (MORS) Ratings					
Rating		ent 1 vs. 5 lients)			
1	Extreme Risk	0.0%	0.0%		
2	High Risk/Not Engaged	8.0%	0.0%		
3	High Risk/Engaged	16.0%	16.0%		
4	Poorly Coping/Not Engaged	16.0%	0.0%		
5	Poorly Coping/Engaged	36.0%	28.0%		
6	Coping/Rehabilitating	16.0%	36.0%		
7	Early Recovery	8.0%	20.0%		
8	Advanced Recovery	0.0%	0.0%		

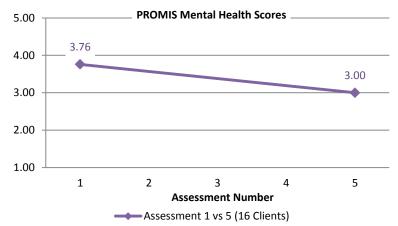
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, at the baseline assessment, 76.0% of UAII clients with matched samples were engaged based on their MORS scores. At the twelve month assessment, 100.0% of clients were engaged in their recovery.

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores decreased significantly from the baseline to the twelve month assessment for UAII clients with matched assessments. Many clients also had a clinically meaningful improvement during that time (62.5%). This suggests that UAII clients experienced significant improvements in mental health after enrolling in services.

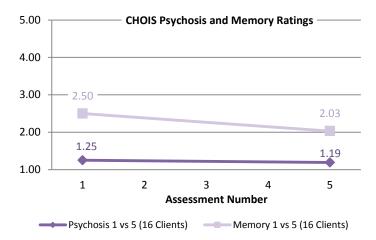


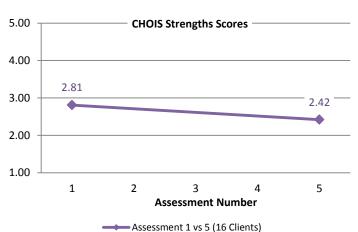
# **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales did not change significantly from the baseline to the twelve month assessment. However, most UAII clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (93.8%, 62.6% respectively).

Across UAII clients with matched assessments, there was a significant improvement in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. Many of UAII clients maintained healthy scores or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (43.8%).





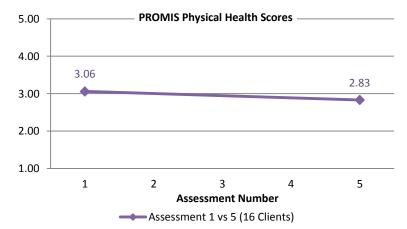
# PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment a program is considered to have a positive outcome if clients improve on

these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# **PROMIS Global Health – Physical Health Scale**

PROMIS Physical Health scores did not significantly change from the baseline to the twelve month assessment. Clinically meaningful improvement in



physical health was seen for half (50.0%) of UAII clients with matched assessments from baseline to twelve months.

### **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey, which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of UAII clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

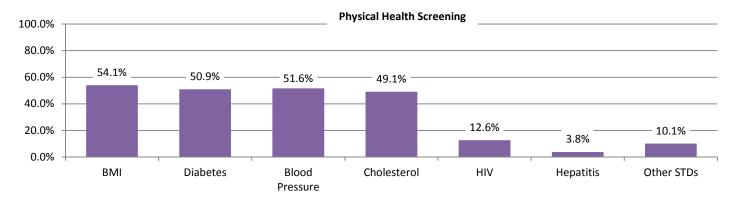


Chart provides the percentage of all UAII clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged UAII clients are included in the calculation of percentages, N=159.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was a significant increase in BMI twelve months after enrollment compared to baseline for UAII clients with matched assessments. No clients had a clinically meaningful improvement or maintained a healthy BMI from baseline to twelve months.

Body Mass Index (BMI) Categorization							
Assessment # Underweight Normal Weight Overweight Obese							
Matched Sample Asse	Matched Sample Assessment 1 vs. 5 (6 Clients)						
1 0.0% 16.7% 33.3% 50.0%							
5	0.0%	0.0%	50.0%	50.0%			

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (25.0%). Other clients maintained a healthy blood pressure during the same time period (37.5%).

Blood Pressure Categorization							
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis							
Matched Sample	Matched Sample Assessment 1 vs. 5 (8 Clients)						
1	50.0%	12.5%	12.5%	0.0%	25.0%		
5	50.0%	0.0%	25.0%	0.0%	25.0%		

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no significant change in diabetes risk from the baseline to the twelve month assessment for UAII clients with matched assessments. Some clients had a clinically meaningful improvement in diabetes risk from baseline to twelve months (33.3%). Most clients maintained healthy A1C and glucose levels during the same time period (66.7%).

Diabetes Categorization						
Low Blood Sugar Normal High Normal Pre-Diabetic Diabetic						
Matched Sample	Assessment 1 vs. 5	(3 Clients)				
1	0.0%	33.3%	33.3%	33.3%	0.0%	
5	0.0%	33.3%	66.7%	0.0%	0.0%	

#### **Cholesterol**

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were collected from clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve month assessment. Many clients maintained healthy cholesterol levels from baseline to twelve months (60.0%) but no clients had a clinically meaningful improvement in heart disease risk during the same time period.

Cholesterol Categorization							
Near Optimal Borderline High Optimal Level Risk High Risk Very High Risk							
Matched Sample	Matched Sample Assessment 1 vs. 5 (5 Clients)						
1	20.0%	40.0%	0.0%	40.0%	0.0%		
5	0.0%	60.0%	0.0%	40.0%	0.0%		

# **SUBSTANCE USE**

Changes in clients' substance use were assessed using client self-report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale, and the IMR Substance Use scale. Clients

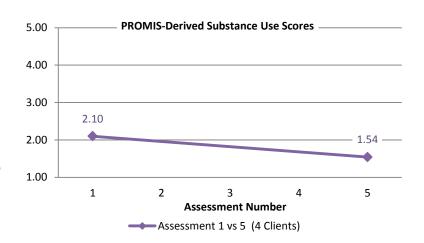
were also considered to have positive outcomes for substance use if they maintained no alcohol or substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

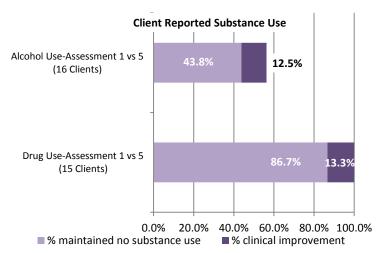
There were no significant changes on the PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment for UAII clients with matched assessments. Twelve months after enrollment, 50.0% of UAII clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or other drug use and 50.0% maintained a healthy score.



# **Client Reported Substance Use Items**

Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey.

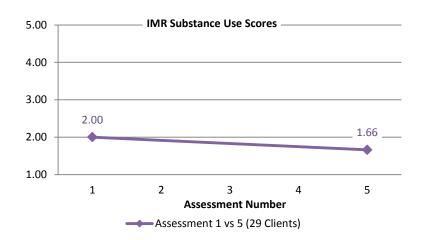
For UAII clients with matched assessments, there was no significant change in alcohol consumption or illegal drug use twelve months after enrollment compared to baseline. As shown in the chart, some UAII clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (12.5%), and other clients maintained no alcohol use from baseline to twelve months (43.8%). Some clients had a clinically meaningful reduction in illegal drug use from baseline to twelve months (13.3%), and the majority of



clients maintained no illegal drug use from baseline to twelve months (86.7%).

# **Clinician-Reported Substance Use: IMR Substance Use Subscale**

There was no significant change in IMR Substance Use scores for UAII clients with matched assessments from baseline to twelve months. However, some clients had a clinically meaningful reduction in substance use scores (27.6%) from baseline to twelve months rating.



### **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, or enrollment in school, housing, mental health stigma, and social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments included those with: strong social support, no mental health stigma, or current employment.

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, most UAII clients (81.3%) began or maintained one of these activities.

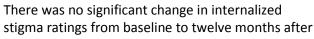
Constructive Activities			
	Percentage of clients who maintained or began the activity		
UAII	Assessment 1 vs. 5		
Employment	43.8% (N=16)		
Volunteer	53.3% (N=15)		
School	12.5% (N=16)		
Any Activity	81.3% (N=16)		

### Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, few UAII clients (8.3%) had been homeless during previous six months; as a result homelessness did not significantly decrease from baseline to 12 months. From baseline to twelve months 91.7% of clients' maintained housing, and 8.3% were homeless for fewer days.

### **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.



Minimal to no internalized stigma 48.6% 14.3% Mild internalized stigma Moderate internalized stigma Severe internalized stigma 35.2%

Baseline ISMI Scores (All Clients N=105)

enrollment for UAII clients with matched assessments. 57.1% of UAII clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) or maintained minimal to no internalized stigma.

1.9%

#### **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 83.3% (N=18) of UAII clients had high overall satisfaction, indicated by a score of four or greater.

Client Satisfaction with Services			
	Percent who increased or maintained high satisfaction		
	Assessment 3		
I was able to get all the services I thought I needed.	88.9% (N=18)		
I felt comfortable asking questions about my			
treatment and medication.	100.0% (N=18)		
Staff were sensitive to my cultural background (race,			
religion, language, etc.).	100.0% (N=18)		
This program meets both my mental and physical			
health care needs.	88.9% (N=18)		
My beliefs about health and well-being were			
considered as part of the services that I received			
here.	88.9% (N=18)		

### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 100.0% of UAII clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background and 88.9% of clients "Agreed" or "Strongly Agreed" that staff considered their beliefs about health and well-being as part of the services.

#### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." All UAII clients (100.0%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Most UAII clients (88.9%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### Integration

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 100.0% of UAII clients "Agreed" or "Strongly Agreed" with this item.

# **Asian Pacific Health Care Venture/Pacific Clinics**

# **Asian/Pacific Islander ISM**

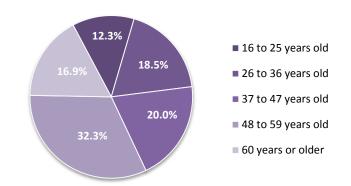
Asian Pacific Health Care Venture (APHCV) was established in 1986. The mission of APHCV is to advocate for and provide quality health care services to all persons in a culturally competent manner. APHCV offers services with a focus on low-income families and underserved Asians and Pacific Islanders. In addition to mental and physical health care, APHCV offers case management services, benefits enrollment, and programs on health education and community economic development. APHCV partnered with Pacific Clinics – Asian Pacific Family Center to implement the ISM service model.

# **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, APHCV/Pacific Clinics has enrolled 65 clients. Of these, 13 (20.0%) have been discharged from the program for any reason. Of the discharged clients, 3 (23.1%) met their treatment goals and were transitioned to a lower level of care.

APHCV/Pacific Clinics clients are most likely to be between the ages of 37 and 59 (52.3%). The majority of clients are male (53.8%).

All APHCV/Pacific Clinics clients identify as Chinese (100.0%).



# **MENTAL HEALTH OUTCOMES**

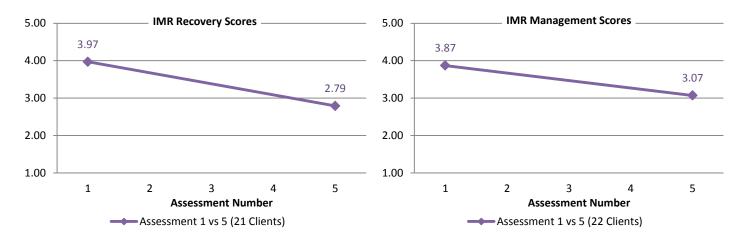
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across APHCV/Pacific Clinics clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 90.5% and 77.3% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, APHCV/Pacific Clinics clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months, clients were significantly more likely to have family or friends involved in their treatment, and had significantly more frequent contact with friends. Many APHCV/Pacific Clinics clients with matched assessments increased the level of involvement of their family and friends in their treatment (54.5%) and the amount of time they spend with people outside their family (86.4%) from baseline to twelve months.

### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months for APHCV/Pacific Clinics clients with matched assessments. The majority of APHCV/Pacific Clinics clients had a clinically meaningful increase in MORS scores from baseline to twelve months (69.6%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first year of services.

Milestones of Recovery (MORS) Ratings				
Rating		ent 1 vs. 5 ients)		
1	Extreme Risk	0.0%	0.0%	
2	High Risk/Not Engaged	0.0%	0.0%	
3	High Risk/Engaged	4.3%	0.0%	
4	Poorly Coping/Not Engaged	13.0%	0.0%	
5	Poorly Coping/Engaged	82.6%	39.1%	
6	Coping/Rehabilitating	0.0%	47.8%	
7	Early Recovery	0.0%	13.0%	
8	Advanced Recovery	0.0%	0.0%	

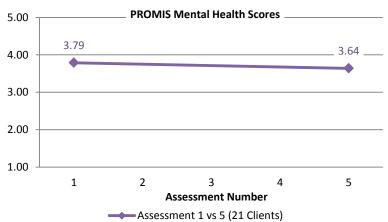
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as clients progressed through treatment. Overall, at the baseline assessment, 87.0% of APHCV/Pacific Clinics clients with matched samples were engaged based on their MORS scores. At the twelve month assessment, 100.0% of clients were engaged in their recovery.

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores did not change significantly from the baseline to the twelve month assessment for APHCV/Pacific Clinics clients with matched assessments. However, several clients had a clinically meaningful improvement during that time period (23.8%).

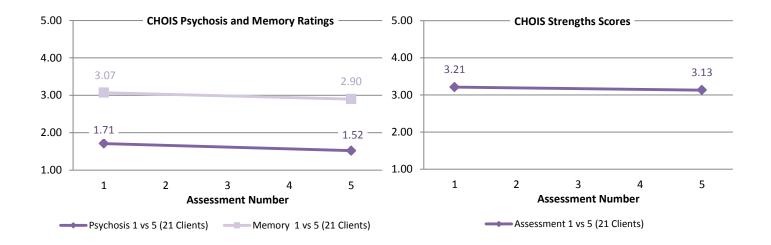


# Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales did not change significantly from the baseline to the twelve month assessment. However, many APHCV/Pacific Clinics clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (71.4%, 38.1% respectively).

Across APHCV/Pacific Clinics clients with matched assessments, there was no significant change in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. Many APHCV/Pacific Clinics clients maintained healthy scores or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (33.4%).

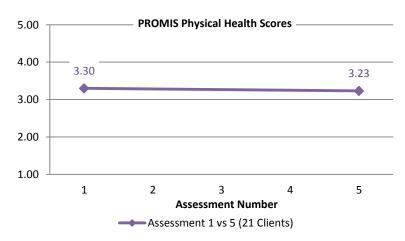


### PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# **PROMIS Global Health – Physical Health Scale**

PROMIS Physical Health scores did not significantly change from the baseline to the twelve month assessment. Clinically meaningful improvements in physical health were seen for 19.0% of APHCV/Pacific Clinics clients with matched assessments from baseline to twelve months.



### **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey, which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of APHCV/Pacific Clinics clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

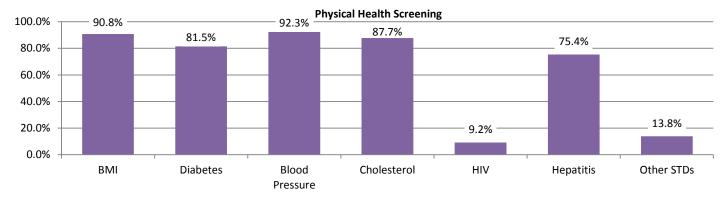


Chart provides the percentage of all APHCV/Pacific Clinics clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged APHCV/Pacific Clinics clients are included in the calculation of percentages, N=65.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. This was used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was a significant increase in BMI twelve months after enrollment compared to baseline for APHCV/Pacific Clinics clients with matched assessments. Almost a third (31.8%) of clients had a clinically meaningful improvement or maintained a healthy BMI from baseline to twelve months.

Body Mass Index (BMI) Categorization							
Assessment # Underweight Normal Weight Overweight Obese							
Matched Sample Assessment 1 vs. 5 (22 Clients)							
1 4.5% 45.5% 40.9% 9.1%							
5 4.5% 31.8% 45.5% 18.2%							

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There were no significant changes in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (18.2%). Other clients maintained a healthy blood pressure during the same time period (31.8%).

	Blood Pressure Categorization						
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis							
Matched Sample	Matched Sample Assessment 1 vs. 5 (22 Clients)						
1	45.5%	31.8%	18.2%	4.5%	0.0%		
5	45.5%	40.9%	9.1%	4.5%	0.0%		

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table

below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no significant change in diabetes risk from the baseline to the twelve month assessment for APHCV/Pacific Clinics clients with matched assessments. Some clients had a clinically meaningful improvement in diabetes risk from baseline to twelve months (23.1%). Many clients maintained healthy A1C and glucose levels during the same time period (38.5%).

Diabetes Categorization						
Low Blood Sugar Normal High Normal Pre-Diabetic Diabetic						
Matched Sample	Matched Sample Assessment 1 vs. 5 (13 Clients)					
1	0.0%	23.1%	23.1%	23.1%	30.8%	
5	0.0%	30.8%	15.4%	30.8%	23.1%	

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve month assessment. However, some clients had a clinically meaningful improvement in heart disease risk from baseline to twelve months (21.1%). Many clients maintained healthy cholesterol levels from baseline to twelve months (47.4%).

	Cholesterol Categorization						
Near Optimal Borderline High Optimal Level Risk High Risk Very High R							
Matched Sample	Matched Sample Assessment 1 vs. 5 (19 Clients)						
1	15.8%	36.8%	15.8%	31.6%	0.0%		
5	21.1%	47.4%	5.3%	21.1%	5.3%		

# **SUBSTANCE USE**

Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and/or other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on both the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

There was not enough data to analyze change from baseline to twelve month assessments.

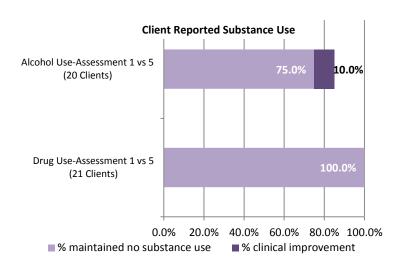
### **Client Reported Substance Use Items**

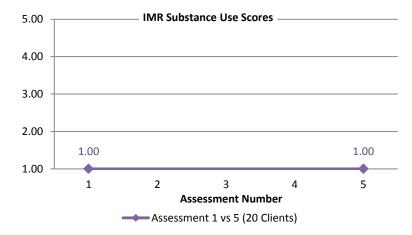
Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey.

For APHCV/Pacific Clinics clients with matched assessments, there was no significant change in alcohol consumption or illegal drug use twelve months after enrollment compared to baseline. As shown in the chart, some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (10.0%), and the majority of clients maintained no alcohol use from baseline to twelve months (75.0%). Every client with matched assessments maintained no illegal drug use from baseline to twelve months (100.0%).



There was no significant change in IMR Substance Use scores for APHCV/Pacific Clinics clients with matched assessments from baseline to twelve months. Clinicians indicated that drugs and alcohol did not impact the lives of clients.





# **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, enrollment in school, housing, mental health stigma, and social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments included those with strong social support, no mental health stigma, or current employment.

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes

in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, many APHCV/Pacific Clinics clients (57.2%) began or maintained one of these activities.

Constructive Activities			
	Percentage of clients who maintained or began the activity		
APHCV/Pacific Clinics	Assessment 1 vs. 5		
Employment	33.3% (N=21)		
Volunteer	10.0% (N=20)		
School	23.8% (N=21)		
Any Activity	57.2% (N=20)		

#### Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, few APHCV/Pacific Clinics clients (4.8%) had been homeless during previous six months; as a result homelessness did not significantly decrease from baseline to 12 months. From baseline to twelve months 95.2% of clients' maintained housing and 4.8% were homeless for fewer days.

#### Stigma

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was no significant change in internalized stigma ratings from baseline to twelve months after enrollment for APHCV/Pacific Clinics clients with

Baseline ISMI Scores (All Clients N=43) 9.3% Minimal to no internalized stigma Mild internalized stigma 32.6% Moderate internalized stigma 48.8% Severe internalized stigma

matched assessments. One-third (33.3%) of clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) or maintained minimal to no internalized stigma.

# **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 71.4% (N=7) of APHCV/Pacific Clinics clients had high overall satisfaction, indicated by a score of 4 or greater.

Client Satisfaction with Services				
	Percent who increased or maintained high satisfaction			
	Assessment 3			
I was able to get all the services I thought I needed.	71.4% (N=7)			
I felt comfortable asking questions about my				
treatment and medication.	85.7% (N=7)			
Staff were sensitive to my cultural background (race,				
religion, language, etc.).	85.7% (N=7)			
This program meets both my mental and physical				
health care needs.	71.4% (N=7)			
My beliefs about health and well-being were				
considered as part of the services that I received				
here.	57.1% (N=7)			

#### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 85.7% of APHCV/Pacific Clinics clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background and 57.1% "Agreed" or "Strongly Agreed" that staff considered their beliefs about health and well-being as part of the services.

#### Engagement

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Most APHCV/Pacific Clinics clients (85.7%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Many APHCV/Pacific Clinics clients (71.4%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### Integration

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 71.4% of APHCV/Pacific Clinics clients "Agreed" or "Strongly Agreed" with this item.

# **Korean ISM Programs**

# Asian/Pacific Islander ISM

The Korean ISM consists of Korean American Family Service Center (KAFSCLA), Koreatown Youth and Community Center (KYCC), Special Service Groups-Asian Pacific Counseling and Treatment Center (SSG-APCTC) and Special Service Groups-Older Adult Program (OAP).

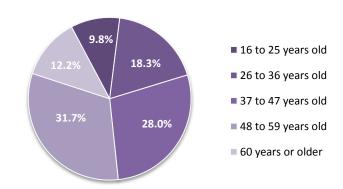
Korean American Family Service Center (KAFSC) was founded in 1983 by Korean immigrant women concerned with the welfare of struggling immigrant families. KAFSC has a particular focus on building the resiliency of families undergoing difficult acculturation and adjustment stresses through clinical counseling, education, and support services. KAFSC has grown to be a preeminent provider of culturally and linguistically competent mental health and family support services for the large, underserved Korean American immigrant population in Los Angeles County. KAFSC has strong outreach capabilities achieved through well-established partnerships with Korean community agencies, media, and faith-based organizations. KAFSC is recognized as the gatekeeper to critical mental health and supportive services for the target population that has significant needs and faces many barriers to appropriate intervention. These barriers include low-income, lack of insurance, Medi-Cal ineligibility, and significant language and cultural barriers that limit outside intervention, particularly mental health services. Programs provided by KAFSCLA include individual counseling, child abuse prevention and intervention, domestic violence prevention and crisis intervention, parenting education, adult and teen anger management, Alcoholics Anonymous, and Healthy Youth Program.

Koreatown Youth and Community Center (KYCC) primarily serves children, youth, and their families, most of whom are first and second generation Korean and Latino immigrants. Founded in 1988, KYCC is a provider of culturally and linguistically appropriate mental health services. They have developed a unique capacity to serve the mental health needs of predominantly Korean and Latino immigrant children and youth of Koreatown as well as the Korean populations throughout Los Angeles County. Their services include mental health services, case management, medication support services, family preservation counseling, financial education, and advocacy for children, youth, and their families. KYCC partners with local programs to offer domestic violence support services and substance abuse programs, and solicits participation from local churches, schools, and other community organizations.

Special Service for Groups (SSG) is dedicated to providing community-based solutions to the social and economic issues facing those in greatest need. SSG has evolved into a model organization which is designed to provide service to diverse groups with maximum efficiency and impact. This is achieved by developing and managing programs which serve many local communities by encouraging community involvement and self-sufficiency. SSG believes that the needs of groups and individuals cross traditional ethnic, racial, and other cultural boundaries. SSG serves as a bridge between people with common needs, helping identify ways to pool resources for the greatest good of all. SSG offers many services, including: advocacy, benefits assistance, employment training, dental services, health care interpretation, substance abuse, HIV/AIDS, volunteer placement, case management, and disease prevention.

### ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS

To date, Korean ISM providers have enrolled 82 clients. Of these, 24 (29.3%) have been discharged from the program for any reason. Of the discharged clients, 6 (25.0%) met their treatment goals and were transitioned to a lower level of care.



Korean ISM clients are most likely to be between the ages of 37 and 59 (59.7%). The majority of clients are female (65.9%). All clients identify themselves as Korean.

#### **MENTAL HEALTH OUTCOMES**

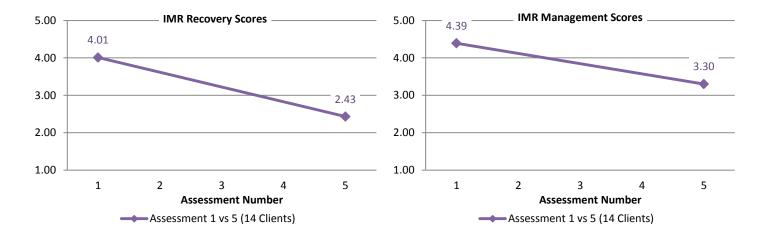
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning that their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across Korean ISM clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 92.9% and 78.6% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, Korean ISM clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health

agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months, clients were significantly more likely to have family or friends involved in their treatment, and had significantly more frequent contact with friends. Many Korean ISM clients with matched assessments increased the level of involvement of their family and friends in their treatment (50.0%) and the amount of time they spend with people outside their family (78.6%) from baseline to twelve months.

### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the 8 stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS score from baseline to twelve months for Korean ISM clients with matched assessments. The majority of clients had a clinically meaningful increase in MORS scores from baseline to twelve months (69.2%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first year of services.

Milestones of Recovery (MORS) Ratings					
Assessment 1 Rating Stage of Recovery (13 Client					
1	Extreme Risk	0.0%	0.0%		
2	High Risk/Not Engaged	0.0%	0.0%		
3	High Risk/Engaged	0.0%	0.0%		
4	Poorly Coping/Not Engaged	7.7% 0.0%			
5	Poorly Coping/Engaged	92.3%	30.8%		
6	Coping/Rehabilitating	0.0%	38.5%		
7	Early Recovery	0.0%	23.1%		
8	Advanced Recovery	0.0%	7.7%		

MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, at the baseline assessment, 92.3% of Korean ISM clients with matched samples were engaged based on their MORS scores. At the twelve month assessment, 100.0% of clients were engaged in their recovery.

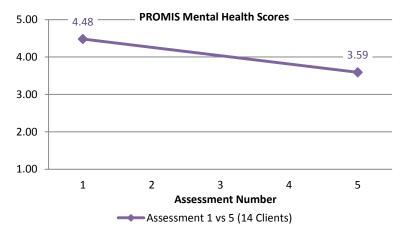
### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no

pain) - 10 (worst imaginable pain), which is then converted into a 5-point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores decreased significantly from the baseline to the twelve month assessment for Korean ISM clients with matched



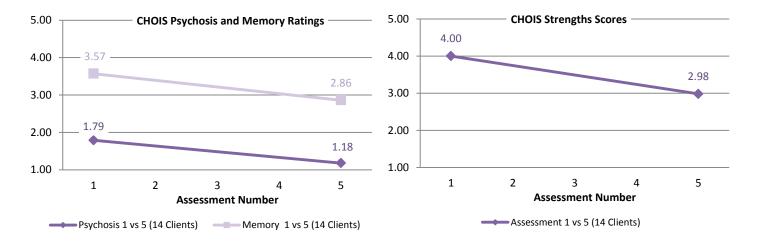
assessments. Many clients also had a clinically meaningful improvement during that time (78.6%). This suggests that Korean ISM clients experienced significant improvements in mental health after enrolling in services.

### **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales decreased significantly from the baseline to the twelve month assessment. Additionally, most Korean ISM clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (92.8%, 64.3% respectively).

Across Korean ISM clients with matched assessments, there was a significant improvement in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. The majority of clients maintained healthy scores or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (71.4%).

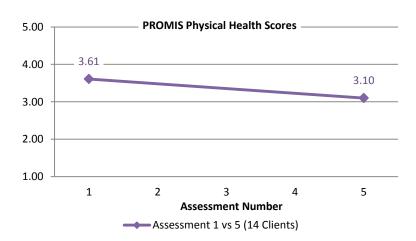


# PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories at the baseline assessment. A program is considered to have a positive outcome (ex. Normal BMI) if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# PROMIS Global Health – Physical **Health Scale**

PROMIS Physical Health scores significantly decreased from the baseline to the twelve month assessment. Clinically meaningful improvements in physical health were seen for many Korean ISM clients (57.1%) with matched assessments from baseline to twelve months. This suggests that Korean ISM clients experienced significant improvements in physical health after enrolling in services.



### **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey, which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of Korean ISM clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

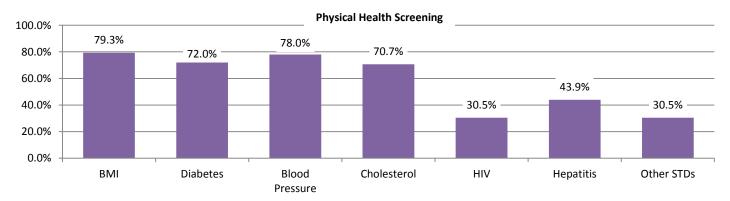


Chart provides the percentage of all Korean ISM clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged Korean ISM clients are included in the calculation of percentages, N=82.

### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment compared to baseline for Korean ISM clients with matched assessments. However, some clients had a clinically meaningful reduction in BMI from baseline to twelve months (14.3%). Other clients maintained a healthy BMI during the same time period (42.9%).

Body Mass Index (BMI) Categorization							
Assessment # Underweight Normal Weight Overweight Obese							
Matched Sample Assessment 1 vs. 5 (7 Clients)							
1	0.0%	42.9%	28.6%	28.6%			
5	0.0%	57.1%	14.3%	28.6%			

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (28.6%). Other clients maintained a healthy blood pressure during the same time period (42.9%).

Blood Pressure Categorization							
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis							
Matched Sample	Matched Sample Assessment 1 vs. 5 (7 Clients)						
1	71.4%	14.3%	0.0%	14.3%	0.0%		
5	57.1%	42.9%	0.0%	0.0%	0.0%		

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk categorization based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no significant change in diabetes risk from the baseline to the twelve month assessment for Korean ISM clients with matched assessments. No clients had a clinically meaningful improvement or maintained healthy A1C and glucose levels from baseline to twelve month assessments.

Diabetes Categorization						
	Low Blood					
	Sugar	Normal	High Normal	Pre-Diabetic	Diabetic	
Matched Sample Assessment 1 vs. 5 (3 Clients)						
1	0.0%	33.3%	0.0%	66.7%	0.0%	
5	0.0%	0.0%	0.0%	100.0%	0.0%	

#### **Cholesterol**

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels or risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve month assessment. Some clients had a clinically meaningful improvement in heart disease risk from baseline to twelve months (25.0%) but no clients maintained healthy cholesterol levels during the same time period.

Cholesterol Categorization							
	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk		
Matched Sample Assessment 1 vs. 5 (4 Clients)							
1	0.0%	75.0%	0.0%	25.0%	0.0%		
5	25.0%	0.0%	0.0%	50.0%	25.0%		

### **SUBSTANCE USE**

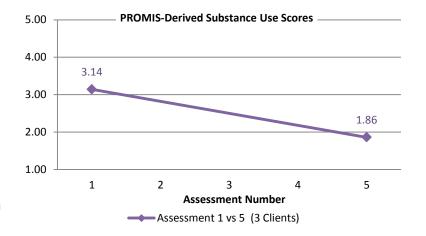
Changes in clients' substance use were assessed using client, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale, and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

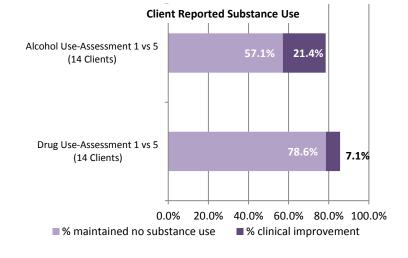
There was no significant change on the PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment for Korean ISM clients with matched assessments. Twelve months after enrollment, 33.3% of Korean ISM clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or drug use and 33.3% maintained a healthy score.



### **Client Reported Substance Use Items**

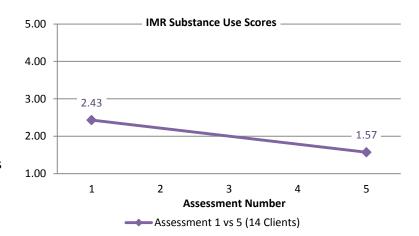
Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey.

For Korean ISM clients with matched assessments, there was no significant change in alcohol consumption or illegal drug use twelve months after enrollment compared to baseline. As shown in the chart, some Korean ISM clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (21.4%), and many clients maintained no alcohol use from baseline to twelve months (57.1%). Some clients had a clinically meaningful reduction in illegal drug use from baseline to twelve months (7.1%), and the majority of clients maintained no illegal drug use from baseline to twelve months (78.6%).



# Clinician-Reported Substance Use: **IMR Substance Use Subscale**

There was a significant decrease in IMR Substance Use scores for Korean ISM clients with matched assessments from baseline to twelve months. Additionally, some clients had a clinically meaningful reduction in substance use scores (35.7%) from baseline to twelve months rating. This indicates that, on average, drugs and alcohol were less likely to impact the lives of clients.



# **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, enrollment in school, status of housing, mental health stigma, and levels of social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: strong social support, no mental health stigma, or current employment.

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, most Korean ISM clients (71.5%) began or maintained one of these activities.

Constructive Activities				
	Percentage of clients who maintained or began the activity			
Korean ISM	Assessment 1 vs. 5			
Employment	42.8% (N=14)			
Volunteer	35.7% (N=14)			
School	21.4% (N=14)			
Any Activity	71.5% (N=14)			

#### Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, few Korean ISM clients (14.3%) had been homeless during previous six months; as a result homelessness did not significantly decrease from baseline to 12 months. From baseline to twelve months 85.7% of clients' maintained housing and 14.3% were homeless for fewer days.

#### Stigma

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was no significant change in internalized stigma ratings from baseline to twelve months after enrollment for Korean ISM clients with matched

Baseline ISMI Scores (All Clients N=70) 2.9% Minimal to no internalized 27.1% Mild internalized stigma 34.3% Moderate internalized stigma Severe internalized stigma 35.7%

assessments. One-third (33.3%) of Korean ISM clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) or maintained minimal to no internalized stigma.

# **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### Overall Satisfaction

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 77.8% (N=9) of Korean ISM clients had high overall satisfaction, indicated by a score of four or greater.

Client Satisfaction with Services			
	Percent who increased or maintained high satisfaction		
	Assessment 3		
I was able to get all the services I thought I needed.	88.9% (N=9)		
I felt comfortable asking questions about my			
treatment and medication.	88.9% (N=9)		
Staff were sensitive to my cultural background (race,			
religion, language, etc.).	66.7% (N=9)		
This program meets both my mental and physical			
health care needs.	88.9% (N=9)		
My beliefs about health and well-being were			
considered as part of the services that I received			
here.	88.9% (N=9)		

## **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 66.7% of Korean ISM clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background and 88.9% "Agreed" or "Strongly Agreed" that staff considered their beliefs about health and well-being as part of the services.

#### Engagement

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Most Korean ISM clients (88.9%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Most Korean ISM clients (88.9%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Integration**

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 88.9% of Korean ISM clients "Agreed" or "Strongly Agreed" with this item.

## **Pacific Asian Counseling Services**

## **Asian/Pacific Islander ISM**

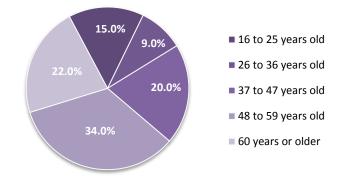
The mission of Pacific Asian Counseling Services (PACS) is to enrich the lives of children and families through counseling and caring. PACS provides culturally sensitive and language specific services with expertise in immigrant Asian/Pacific Islander populations. PACS' services include mental health counseling, case management, parent education, domestic violence batterer's treatment, community education and outreach, interpreting services, school-based counseling services, and low cost insurance enrollments. PACS strives to be a culturally sensitive agency and does outreach in the API communities at many different levels, including staff participation in community groups and activities.

## **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, PACS has enrolled 100 clients. Of these, 28 (28.0%) have been discharged from the program for any reason. Of the discharged clients, 34 (28.6%) met their treatment goals and were transitioned to a lower level of care.

PACS clients are most likely to be between the ages of 48 and 59 (34.0%). The majority of clients are female (70.0%).

All PACS clients identified themselves as Cambodian (100%).



## **MENTAL HEALTH OUTCOMES**

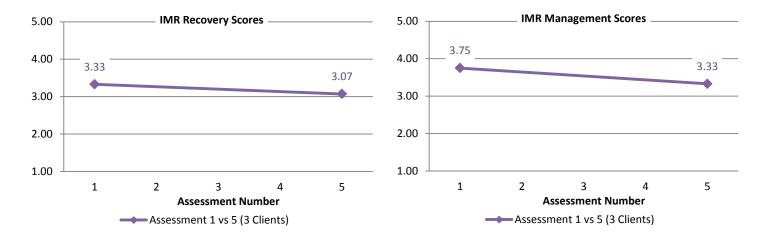
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

## Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across PACS clients with matched assessments, there were no significant changes in the Recovery or the Management subscale scores from baseline to twelve months. However, 33.3% and 66.7% of clients had a clinically meaningful improvement from baseline to twelve months on the Recovery and Management scales, respectively.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." Several PACS clients with matched assessments increased the level of involvement of their family and friends in their treatment (33.3%) and the amount of time they spend with people outside their family (66.7%) from baseline to twelve months.

### **Milestones of Recovery Scale (MORS)**

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the 8 stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was no significant change in MORS score from baseline to twelve months for PACS clients with matched assessments. However, the majority of PACS clients with matched assessments had a clinically meaningful increase in MORS scores from baseline to twelve months (75.0%).

Milestones of Recovery (MORS) Ratings				
Rating		ent 1 vs. 5 ents)		
1	Extreme Risk	0.0%	0.0%	
2	High Risk/Not Engaged	0.0%	0.0%	
3	High Risk/Engaged	0.0%	25.0%	
4	Poorly Coping/Not Engaged	0.0%	0.0%	
5	Poorly Coping/Engaged	100.0%	0.0%	
6	Coping/Rehabilitating	0.0%	75.0%	
7	Early Recovery	0.0%	0.0%	
8	Advanced Recovery	0.0%	0.0%	

MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, 100.0% of PACS

clients with matched samples were engaged in their recovery based on their MORS scores at baseline and twelve months.

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) - 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

There was not enough data to analyze change from baseline to the twelve month assessment.

## **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory\Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory\Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

There was not enough data to analyze change from baseline to the twelve month assessment.

## PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

## PROMIS Global Health – Physical Health Scale

There was not enough data to analyze change from baseline to the twelve month assessment.

## **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of PACS clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

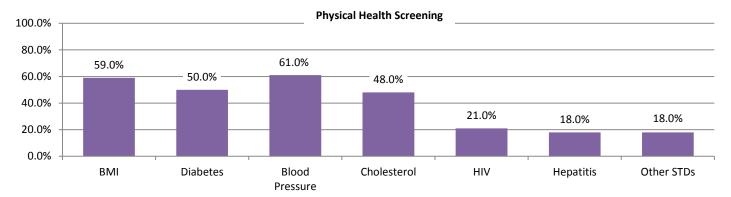


Chart provides the percentage of all PACS clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged PACS clients are included in the calculation of percentages, N=100.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment compared to baseline for PACS clients with matched assessments. However, some clients had a clinically meaningful reduction in BMI from baseline to twelve months (14.3%). The majority of clients maintained a healthy BMI during the same time period (52.4%).

Body Mass Index (BMI) Categorization						
Assessment # Underweight Normal Weight Overweight Obese						
Matched Sample Asse	Matched Sample Assessment 1 vs. 5 (21 Clients)					
1 4.8% 57.1% 19.0% 19.0%						
5	0.0%	57.1%	33.3%	9.5%		

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (16.7%). Other clients maintained a healthy blood pressure during the same time period (33.3%).

Blood Pressure Categorization						
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis						
Matched Sample	Matched Sample Assessment 1 vs. 5 (24 Clients)					
1	41.7%	37.5%	16.7%	4.2%	0.0%	
5	41.7%	16.7%	37.5%	4.2%	0.0%	

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no significant change in diabetes risk from the baseline to the twelve month assessment for PACS clients with matched assessments. Some clients had a clinically meaningful improvement in diabetes risk from baseline to twelve months (5.6%). Many clients maintained healthy A1C and glucose levels during the same time period (50.0%).

Diabetes Categorization					
Low Blood Sugar Normal High Normal Pre-Diabetic Diabetic					
Matched Sample	Assessment 1 vs. 5	(18 Clients)			
1	0.0%	38.9%	27.8%	11.1%	22.2%
5	0.0%	38.9%	16.7%	22.2%	22.2%

#### **Cholesterol**

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve month assessment. Some clients maintained healthy cholesterol levels from baseline to twelve months (25.0%) and 12.5% of clients had a clinically meaningful improvement in heart disease risk during the same time period.

Cholesterol Categorization						
Near Optimal Borderline High Optimal Level Risk High Risk Very High Risk						
Matched Sample	Assessment 1 vs. 5	(16 Clients)				
1	6.3%	31.3%	31.3%	31.3%	0.0%	
5	6.3%	31.3%	18.8%	43.8%	0.0%	

## **SUBSTANCE USE**

Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on both the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

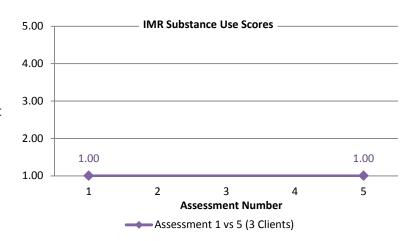
There were no matched assessments to analyze change in PROMIS-Derived Substance Use scores from baseline to twelve months.

#### **Client Reported Substance Use Items**

Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey. There was not enough data to analyze change from baseline to the twelve month assessment.

## Clinician-Reported Substance Use: IMR Substance Use Subscale

IMR Substance Use scores for PACS clients with matched assessments at baseline and twelve months indicated that alcohol and other drugs did not impact the lives of PACS clients. As a result, there was no significant change and no clients had a clinically meaningful reduction in substance use scores from baseline to twelve months.



## **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, or enrollment in school, status of housing, mental health stigma, and levels of social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: strong social support, no mental health stigma, or current employment.

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There was not enough data to analyze change from baseline to the twelve month assessment.

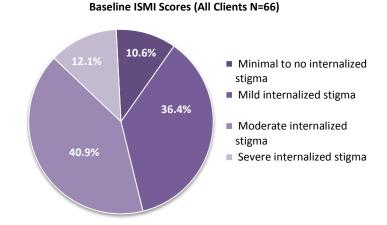
### Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, no PACS clients had been homeless during previous six months. From baseline to twelve months 100.0% of clients maintained housing.

## **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was not enough data to analyze change from baseline to the twelve month assessment.



## **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 85.7% (N=7) of PACS clients had high overall satisfaction, indicated by a score of 4 or greater.

Client Satisfaction with Services			
	Percent who increased or maintained high satisfaction		
	Assessment 3		
I was able to get all the services I thought I needed.	100.0% (N=7)		
I felt comfortable asking questions about my			
treatment and medication.	85.7% (N=7)		
Staff were sensitive to my cultural background (race,			
religion, language, etc.).	100.0% (N=7)		
This program meets both my mental and physical			
health care needs.	100.0% (N=7)		
My beliefs about health and well-being were			
considered as part of the services that I received			
here.	100.0% (N=7)		

### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 100.0% of PACS clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background and that staff considered their beliefs about health and well-being as part of the services.

#### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Most PACS clients (85.7%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Most PACS clients (100.0%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### Integration

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 100.0% of PACS clients "Agreed" or "Strongly Agreed" with this item.

## **SSG-API Alliance**

## Asian/Pacific Islander ISM

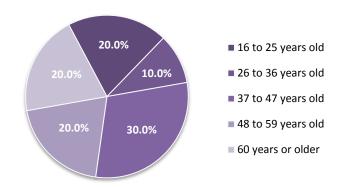
Special Service for Groups (SSG) is dedicated to providing community-based solutions to the social and economic issues facing those in greatest need. SSG has evolved into a model organization which is designed to provide service to diverse groups with maximum efficiency and impact. This is achieved by developing and managing programs that serve many local communities by encouraging community involvement and self-sufficiency. SSG believes that the needs of groups and individuals cross traditional ethnic, racial, and other cultural boundaries. SSG serves as a bridge between people with common needs to identify ways to pool resources for the greatest good of all. SSG offers many services, including: advocacy, benefits assistance, employment training, dental services, health care interpretation, substance abuse, HIV/AIDS, volunteer placement, case management, and disease prevention. SSG partners with several of the other ISM providers to implement their three ISM programs: Korean, Samoan, and Older Adults (OAP).

## ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS

To date, SSG-API Alliance has enrolled 10 clients. No clients have been discharged from the program for any reason.

SSG-API Alliance clients are most likely to be between the ages of 37 and 47 (30.0%). Half of the clients served are female (50.0%).

All SSG-API Alliance clients are Samoan (100.0%).



## **MENTAL HEALTH OUTCOMES**

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

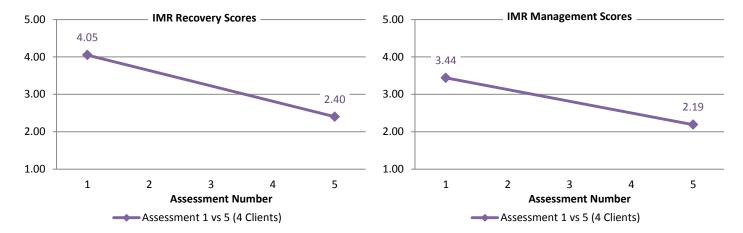
For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery

(knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across SSG-API Alliance clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 100.0% and 75.0% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, SSG-API Alliance clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months, clients had significantly more frequent contact with friends. Many SSG-API Alliance clients with matched assessments increased the level of involvement of their family and friends in their treatment (25.0%) and the amount of time they spend with people outside their family (75.0%) from baseline to twelve months.

## Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the 8 stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was no significant change in MORS scores from baseline to twelve months for SSG-API Alliance clients with matched assessments. Several SSG-API Alliance clients had a clinically meaningful increase in MORS scores from baseline to twelve months (33.3%).

Milestones of Recovery (MORS) Ratings			
Rating	Assessme (3 Cli	ent 1 vs. 5 ents)	
1	Extreme Risk	0.0%	0.0%
2	High Risk/Not Engaged	0.0%	0.0%
3	High Risk/Engaged	0.0%	25.0%
4	Poorly Coping/Not Engaged	0.0%	0.0%
5	Poorly Coping/Engaged	66.7%	33.3%
6	Coping/Rehabilitating	33.3%	66.7%
7	Early Recovery	0.0%	0.0%
8	Advanced Recovery	0.0%	0.0%

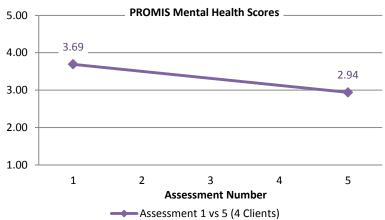
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, 100.0% of SSG-API Alliance clients with matched samples were engaged in their recovery at baseline and twelve months based on their MORS scores.

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure aimed at assessing client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then categorized into a 5-point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores decreased significantly from the baseline to the twelve month assessment for SSG-API Alliance clients with matched assessments. Many clients also had a clinically meaningful improvement during that time (75.0%). This suggests suggest that SSG-API Alliance clients experienced significant improvements in mental health after enrolling in services.

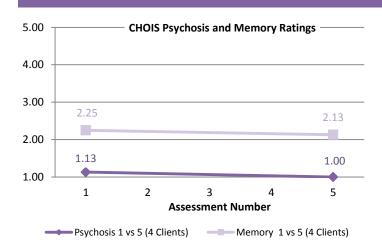


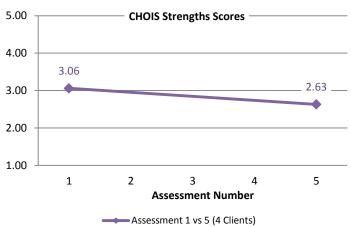
## **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory and Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory and Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales did not change significantly from the baseline to the twelve month assessment. However, many SSG-API Alliance clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (100.0%, 50.0% respectively).

Across SSG-API Alliance clients with matched assessments, there was a significant improvement in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. Half of SSG-API Alliance clients maintained healthy scores or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (50.0%).



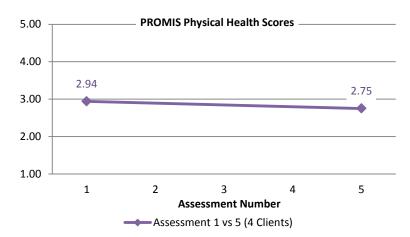


#### PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

## **PROMIS Global Health – Physical Health Scale**

PROMIS Physical Health scores did not significantly change from the baseline to the twelve month assessment. Clinically meaningful improvement in physical health was seen for half (50.0%) of SSG-API Alliance clients with matched assessments from baseline to twelve months.



## **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

### **Health Screening**

The graph below shows the percentage of SSG-API Alliance clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

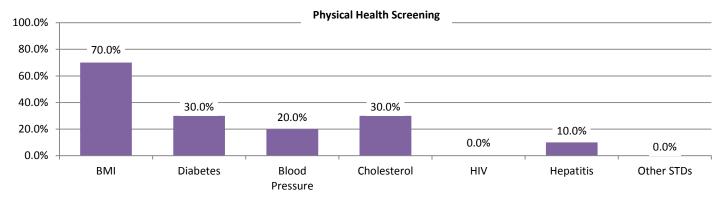


Chart provides the percentage of all SSG-API Alliance clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged SSG-API Alliance clients are included in the calculation of percentages, N=10.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC). There was not enough data to analyze change from baseline to the twelve month assessment.

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension. There was not enough data to analyze change from baseline to the twelve month assessment.

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories. If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category. There was not enough data to analyze change from baseline to the twelve month assessment.

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category. There was not enough data to analyze change from baseline to the twelve month assessment.

## SUBSTANCE USE

Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate

how much alcohol and drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale, and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

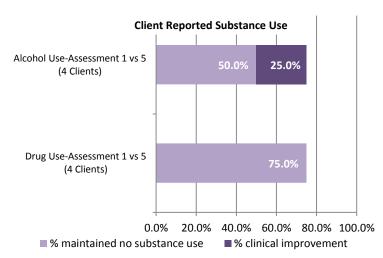
#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use. There was not enough data to analyze change from baseline to the twelve month assessment.

### **Client Reported Substance Use Items**

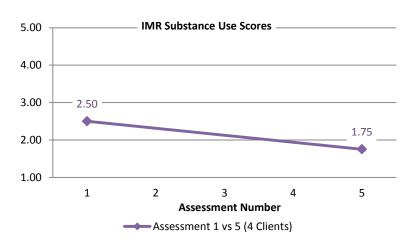
Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey.

For SSG-API Alliance clients with matched assessments, there was no significant change in alcohol consumption or illegal drug use twelve months after enrollment compared to baseline. As shown in the chart, some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (25.0%), and other clients maintained no alcohol use from baseline to twelve months (50.0%). The majority of clients maintained no illegal drug use from baseline to twelve months (75.0%).



## Clinician-Reported Substance Use: IMR Substance Use Subscale

There was no significant change in IMR Substance Use scores for SSG-API Alliance clients with matched assessments from baseline to twelve months. However, some clients had a clinically meaningful reduction in substance use scores (25.0%) from baseline to twelve months rating.



### **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, or enrollment in school, status of housing, mental health stigma, and levels of social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: strong social support, no mental health stigma, or current employment.

#### Constructive Activities

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, half of SSG-API Alliance clients (50.0%) began or maintained one of these activities.

Constructive Activities			
Percentage of clients who maintained or began the a			
SSG-API Alliance Assessment 1 vs. 5			
Employment	25.0% (N=4)		
Volunteer	50.0% (N=4)		
School	25.0% (N=4)		
Any Activity	50.0% (N=4)		

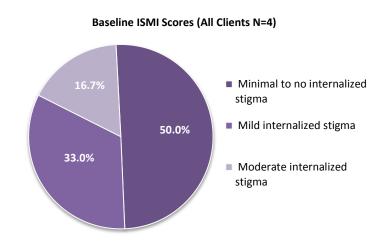
## Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, few SSG-API Alliance clients (25.0%) had been homeless during previous six months; as a result homelessness did not significantly decrease from baseline to 12 months. From baseline to twelve months 75.0% of clients' maintained housing and 25.0% were homeless for fewer days.

### Stigma

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was no significant change in internalized stigma ratings from baseline to twelve months after enrollment for SSG-API Alliance clients with



matched assessments. 33.3% of clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) or maintained minimal to no internalized stigma.

#### **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 100.0% (N=3) of SSG-API Alliance clients had high overall satisfaction, indicated by a score of four or greater.

Client Satisfaction with Services			
	Percent who increased or maintained high satisfaction		
	Assessment 3		
I was able to get all the services I thought I needed.	100.0% (N=3)		
I felt comfortable asking questions about my			
treatment and medication.	100.0% (N=3)		
Staff were sensitive to my cultural background (race,			
religion, language, etc.).	100.0% (N=3)		
This program meets both my mental and physical			
health care needs.	100.0% (N=3)		
My beliefs about health and well-being were			
considered as part of the services that I received			
here.	100.0% (N=3)		

#### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 100.0% of SSG-API Alliance clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background and considered their beliefs about health and well-being as part of the services.

#### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." All SSG-API Alliance clients (100.0%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. All SSG-API Alliance clients (100.0%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

## Integration

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 100.0% of SSG-API Alliance clients "Agreed" or "Strongly Agreed" with this item.

## **Didi Hirsch**

## Eastern European/Middle Eastern ISM

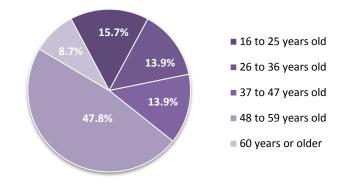
Didi Hirsch Mental Health Services (Didi Hirsch) has provided mental health and substance abuse treatment services to underrepresented/underserved populations dating back to 1942. Didi Hirsch is dedicated to the mission of transforming lives by providing quality mental health, substance abuse and suicide prevention services in communities where poverty or stigma limits access. Didi Hirsch provides a full-range of prevention, mental health and substance abuse services to over 30,000 children, youth, adults, and older adults annually; more than 90% live at or below poverty level, and 70% represent underserved cultural groups. To achieve their holistic approach, Didi Hirsch weaves together crisis intervention, therapy, and medication management with employment services, parenting and child development classes, skill-building groups and other resources that address all aspects of clients' lives. Additionally, they link clients to primary care. Didi Hirsch has a culturally/linguistically competent approach to outreach, engagement and education to provide access to those not aware or unable to access available services due to cultural/linguistic isolation and barriers. Consumers are empowered to lead, control, and exercise choice over their recovery path. They focus on wellness and recovery through therapy, lifestyle changes, and peer support.

## ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS

To date, Didi Hirsch has enrolled 115 clients. Of these, 61 (53.0%) have been discharged from the program for any reason. Of the discharged clients, 34 (55.7%) met their treatment goals and were transitioned to a lower level of care.

Didi Hirsch clients are most likely to be between the ages of 48 and 59 (47.8%). The majority of the clients served are female (66.1%).

All clients served by Didi Hirsch are Armenian (100.0%).



## **MENTAL HEALTH OUTCOMES**

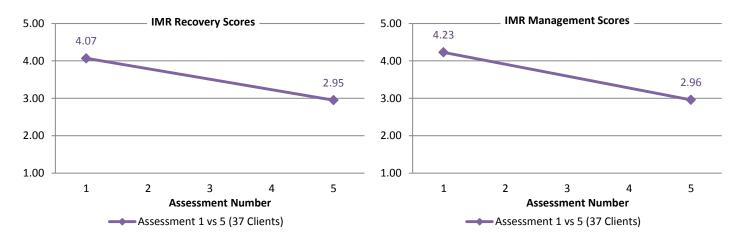
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

## Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across Didi Hirsch clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 78.4% and 94.6% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, Didi Hirsch clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months, clients had significantly more frequent contact with friends. Many Didi Hirsch clients with matched assessments increased the level of involvement of their family and friends in their treatment (27.0%) and the amount of time they spend with people outside their family (64.9%) from baseline to twelve months.

### **Milestones of Recovery Scale (MORS)**

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months for Didi Hirsch clients with matched assessments. Many Didi Hirsch clients had a clinically meaningful increase in MORS scores from baseline to twelve months (53.1%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first year of services.

Milestones of Recovery (MORS) Ratings				
Rating		ent 1 vs. 5 ients)		
1	Extreme Risk	0.0%	0.0%	
2	High Risk/Not Engaged	0.0%	0.0%	
3	High Risk/Engaged	0.0%	0.0%	
4	Poorly Coping/Not Engaged	0.0%	0.0%	
5	Poorly Coping/Engaged	62.5%	15.6%	
6	Coping/Rehabilitating	37.5%	59.4%	
7	Early Recovery	0.0%	21.9%	
8	Advanced Recovery	0.0%	3.1%	

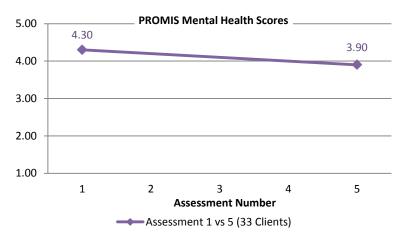
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, 100.0% of Didi Hirsch clients with matched samples were engaged in their recovery at baseline and twelve months based on their MORS scores.

## Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) - 10 (worst imaginable pain), which is then categorized into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores decreased significantly from the baseline to the twelve month assessment for Didi Hirsch clients with matched assessments. Many clients also had a clinically meaningful improvement during that time (54.5%). This suggests that Didi Hirsch clients experienced significant improvements in mental health after enrolling in services.

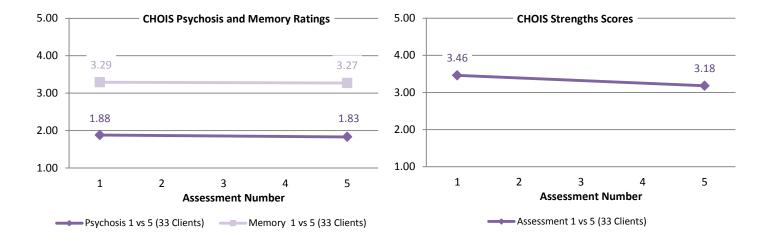


### Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales did not change significantly from the baseline to the twelve month assessment. However, many Didi Hirsch clients maintained a healthy score or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (63.3%, 24.2% respectively).

Across Didi Hirsch clients with matched assessments, there was a significant improvement in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. Several Didi Hirsch clients maintained a healthy score or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (63.6%).

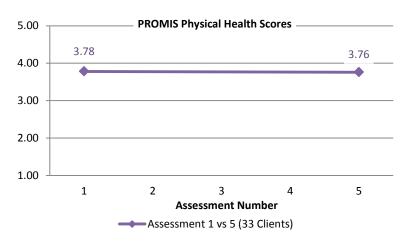


## PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

## **PROMIS Global Health – Physical Health Scale**

PROMIS Physical Health scores did not significantly change from the baseline to the twelve month assessment. Clinically meaningful improvement in physical health was seen for some (27.3%) of Didi Hirsch clients with matched assessments from baseline to twelve months.



#### **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey, which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of Didi Hirsch clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

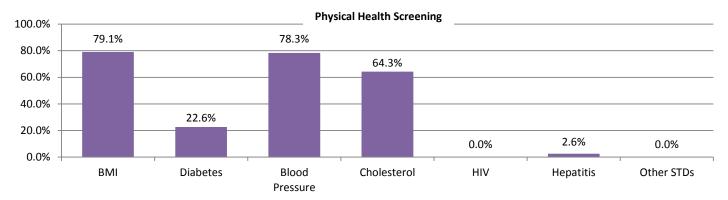


Chart provides the percentage of all Didi Hirsch clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged Didi Hirsch clients are included in the calculation of percentages, N=115.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment compared to baseline for Didi Hirsch clients with matched assessments. However, some clients had a clinically meaningful improvement in BMI from baseline to twelve months (9.4%). Other clients maintained a healthy BMI during the same time period (12.5%).

Body Mass Index (BMI) Categorization						
Assessment # Underweight Normal Weight Overweight Obese						
Matched Sample Asse	Matched Sample Assessment 1 vs. 5 (32 Clients)					
1 0.0% 12.5% 46.9% 40.6%						
5	0.0%	18.8%	37.5%	43.8%		

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (21.9%). Other clients maintained a healthy blood pressure during the same time period (15.6%).

Blood Pressure Categorization					
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis					
Matched Sample Assessment 1 vs. 5 (32 Clients)					
1	34.4%	50.0%	12.5%	3.1%	0.0%
5	31.3%	43.8%	25.0%	0.0%	0.0%

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no significant change in diabetes risk from the baseline to the twelve month assessment for Didi Hirsch clients with matched assessments. No clients had a clinically meaningful improvement in diabetes risk or maintained healthy A1C and glucose levels from baseline to twelve months.

Diabetes Categorization					
	Low Blood Sugar	Normal	High Normal	Pre-Diabetic	Diabetic
Matched Sample Assessment 1 vs. 5 (9 Clients)					
1	0.0%	0.0%	11.1%	11.1%	77.8%
5	0.0%	0.0%	0.0%	11.1%	88.9%

#### **Cholesterol**

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was a significant reduction in risk for heart disease from the baseline to the twelve month assessment. Many clients had a clinically meaningful improvement in heart disease from baseline to twelve months (30.0%) and 10.0% of clients maintained healthy cholesterol levels during the same time period.

Cholesterol Categorization					
		Near Optimal	Borderline High		
	Optimal Level	Level	Risk	High Risk	Very High Risk
Matched Sample Assessment 1 vs. 5 (20 Clients)					
1	0.0%	25.0%	15.0%	55.0%	5.0%
5	10.0%	20.0%	20.0%	45.0%	5.0%

## **SUBSTANCE USE**

Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients

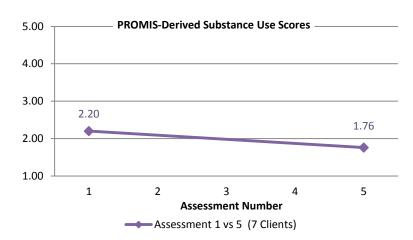
were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or substance use.

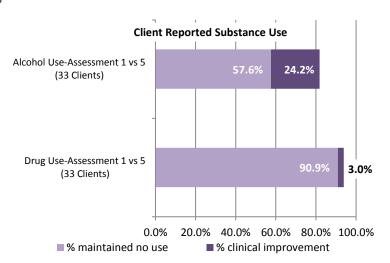
There were no significant changes on the PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment for Didi Hirsch clients with matched assessments. Twelve months after enrollment, 28.6% of Didi Hirsch clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or other drug use and 42.9% maintained a healthy score.



### **Client Reported Substance Use Items**

Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey.

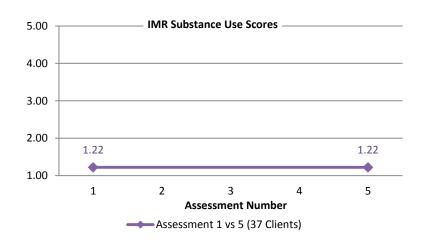
For Didi Hirsch clients with matched assessments, there was a significant reduction in alcohol consumption twelve months after enrollment compared to baseline. As shown in the chart, some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (24.2%), and many clients maintained no alcohol use from baseline to twelve months (57.6%). There was no significant change in drug use from baseline to twelve months. The majority of clients maintained no illegal drug use from baseline to



twelve months (90.0%) and 5.0% of clients had a clinically meaningful reduction in illegal drug use.

## **Clinician-Reported Substance Use: IMR Substance Use Subscale**

There was no significant change in IMR Substance Use scores for Didi Hirsch clients with matched assessments from baseline to twelve months. However, some clients had a clinically meaningful reduction in substance use scores (5.4%) from baseline to twelve months rating.



### **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, or enrollment in school, status of housing, mental health stigma, and levels of social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: strong social support, no mental health stigma, or current employment.

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, some Didi Hirsch clients (18.2%) began or maintained one of these activities.

Constructive Activities			
	Percentage of clients who maintained or began the activity		
Didi Hirsch	Assessment 1 vs. 5		
Employment	9.1% (N=33)		
Volunteer	6.0% (N=33)		
School	12.2% (N=33)		
Any Activity	18.2% (N=33)		

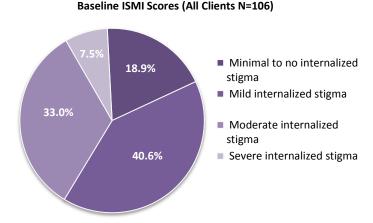
### Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, few Didi Hirsch clients (6.3%) had been homeless during previous six months; as a result homelessness did not significantly decrease from baseline to 12 months. From baseline to twelve months 93.8% of clients' maintained housing and 6.3% were homeless for fewer days.

## **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was no significant change in internalized stigma ratings from baseline to twelve months after



enrollment for Didi Hirsch clients with matched assessments. 50.0% of clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) or maintained minimal to no internalized stigma.

#### **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 78.6% (N=28) of Didi Hirsch clients had high overall satisfaction, indicated by a score of four or greater.

Client Satisfaction with Services		
	Percent who increased or maintained high satisfaction	
	Assessment 3	
I was able to get all the services I thought I needed.	92.9% (N=28)	
I felt comfortable asking questions about my		
treatment and medication.	92.9% (N=28)	
Staff were sensitive to my cultural background (race,		
religion, language, etc.).	92.9% (N=28)	
This program meets both my mental and physical		
health care needs.	78.6% (N=28)	
My beliefs about health and well-being were		
considered as part of the services that I received		
here.	96.4% (N=28)	

### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 92.9% of Didi Hirsch clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background. 96.4% of clients "Agreed" or "Strongly Agreed" that staff had considered their beliefs about health and well-being as part of the services.

#### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Most Didi Hirsch clients (92.9%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Most Didi Hirsch clients (92.9%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### Integration

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 78.6% of Didi Hirsch clients "Agreed" or "Strongly Agreed" with this item.

# Institute for Multicultural Counseling & Education Services

## Eastern European/Middle Eastern ISM

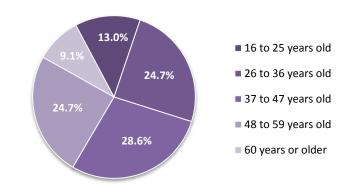
The Institute for Multicultural Counseling & Education Services (IMCES) believes access to comprehensive health services is a basic human right. IMCES has been serving underserved ethnic communities for 20 years, and has partnered with collaborative agencies to provide coordinated access to primary care, mental health, and substance abuse services. IMCES has developed a large group of 30 community network partners, including health care, residential services, churches, schools, and social service agencies. Additionally, IMCES is deploying a mobile unit which will bring access to services to individuals within the communities in which they live. This method of service delivery facilitates stigma-free access to health, mental health, and education services and creates a learning opportunity to test the feasibility of this model. For the ISM service model, IMCES is primarily serving the Armenian population.

### **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, IMCES has enrolled 77 adult clients. Of these, 34 (44.2%) have been discharged from the program for any reason. Of the discharged clients, 10 (29.4%) met their treatment goals and were transitioned to a lower level of care.

IMCES clients are most likely to be between the ages of 26 and 59 (78.0%). Half of the clients served are female (53.2%).

IMCES clients are most likely to identify as Armenian (98.7%), with several Iranian clients (1.3%).



### **MENTAL HEALTH OUTCOMES**

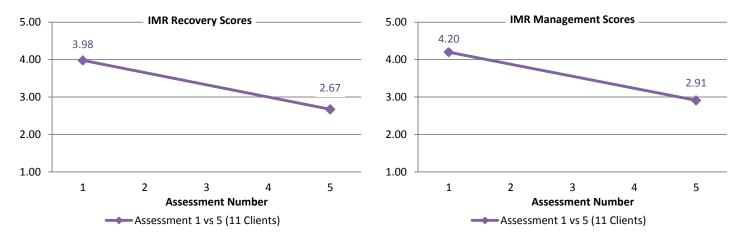
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

## Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across IMCES clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 81.8% and 72.7% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, IMCES clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months, clients had significantly more frequent contact with friends. Many IMCES clients with matched assessments increased the level of involvement of their family and friends in their treatment (36.4%) and the amount of time they spend with people outside their family (72.7%) from baseline to twelve months.

### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months for IMCES clients with matched assessments. The majority of IMCES clients had a clinically meaningful increase in MORS scores from baseline to twelve months (81.8%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first year of services.

Milestones of Recovery (MORS) Ratings				
Rating	Stage of Recovery	(11 Clients)		
1	Extreme Risk	0.0%	0.0%	
2	High Risk/Not Engaged	0.0%	0.0%	
3	High Risk/Engaged	18.2%	9.1%	
4	Poorly Coping/Not Engaged	9.1%	0.0%	
5	Poorly Coping/Engaged	63.6%	18.2%	
6	Coping/Rehabilitating	9.1%	45.5%	
7	Early Recovery	0.0%	27.3%	
8	Advanced Recovery	0.0%	0.0%	

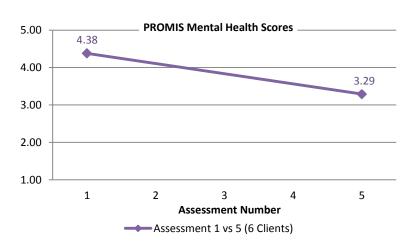
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, 90.9% of IMCES clients with matched samples were engaged at baseline based on their MORS scores. At twelve months, 100.0% of clients were engaged in their recovery.

### **Patient Reported Outcomes Measurement Information System (PROMIS)**

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then categorized into a 5-point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

## PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores decreased significantly from the baseline to the twelve month assessment for IMCES clients with matched assessments. Additionally, most clients had a clinically meaningful improvement during that time (83.3%). This suggests that IMCES clients experienced significant improvements in mental health after enrolling in services.



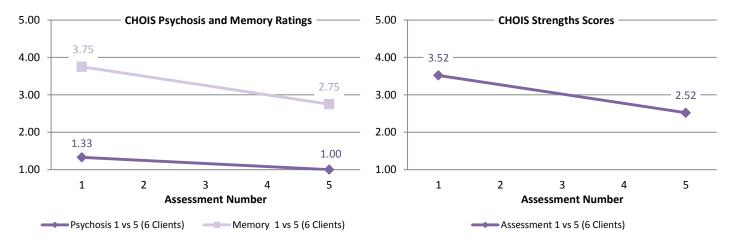
## Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and

Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales did not change significantly from the baseline to the twelve month assessment. However, many IMCES clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (100.0%, 66.7% respectively).

Across IMCES clients with matched assessments, there was a significant improvement in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. Additionally, many IMCES clients maintained a healthy score or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (66.7%).

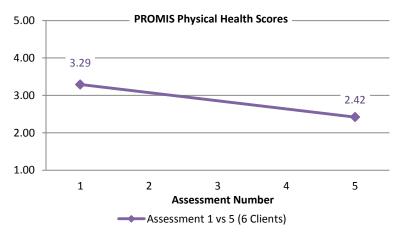


## PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers — body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

## PROMIS Global Health – Physical Health Scale

PROMIS Physical Health scores decreased significantly from the baseline to the twelve month assessment. Clinically meaningful improvement in physical health was seen for many IMCES clients with matched assessments from baseline to twelve months (66.7%). This suggests that IMCES clients



experienced significant improvements in physical health after enrolling in services.

### **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of IMCES clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

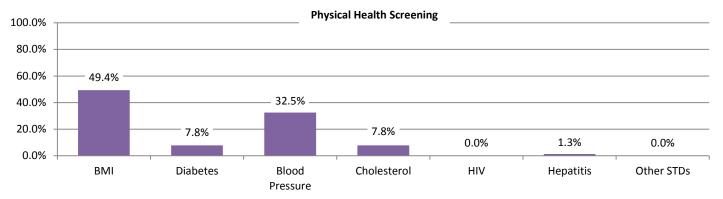


Chart provides the percentage of all IMCES clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged IMCES clients are included in the calculation of percentages, N=77.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment compared to baseline for IMCES clients with matched assessments. However, some clients maintained a healthy BMI from baseline to twelve months (28.6%).

Body Mass Index (BMI) Categorization					
Assessment # Underweight Normal Weight Overweight Obese					
Matched Sample Assessment 1 vs. 5 (7 Clients)					
1	0.0%	71.4%	0.0%	28.6%	
5	0.0%	28.6%	42.9%	28.6%	

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (25.0%). Other clients maintained a healthy blood pressure during the same time period (25.0%).

Blood Pressure Categorization					
Assessment #	Normal	Pre- Hypertension	Stage 1 Hypertension	Stage 2 Hypertension	Hypertensive Crisis
Matched Sample Assessment 1 vs. 5 (4 Clients)					
1	25.0%	75.0%	0.0%	0.0%	0.0%
5	50.0%	0.0%	0.0%	50.0%	0.0%

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories. If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category. There was not enough data to analyze change from baseline to twelve months.

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category. If a client was categorized at different levels or risk based on their HDL and LDL levels, they were placed into the higher category. There was not enough data to analyze change from baseline to twelve months.

#### SUBSTANCE USE

Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

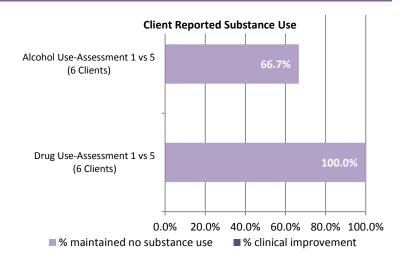
#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use. There was not enough data to analyze change from baseline to twelve months.

## **Client Reported Substance Use Items**

Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey.

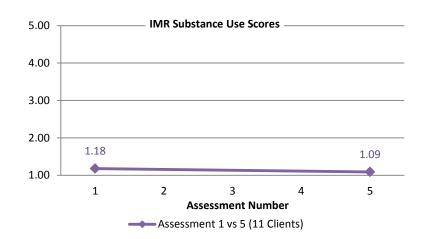
For IMCES clients with matched assessments, there was no significant change in alcohol consumption or illegal drug use twelve months after enrollment compared to baseline. As shown in the chart, many clients maintained no alcohol use from baseline to twelve months (66.7%) but no clients had a clinically meaningful reduction in alcohol use. All



IMCES clients with matched assessments maintained no illegal drug use from baseline to twelve months (100.0%).

## Clinician-Reported Substance Use: IMR Substance Use Subscale

There was no significant change in IMR Substance Use scores for IMCES clients with matched assessments from baseline to twelve months. However, some clients had a clinically meaningful reduction in substance use scores (9.1%) from baseline to twelve months rating.



## **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, or enrollment in school, as well as status of housing, mental health stigma, and levels of social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: strong social support, no mental health stigma, or current employment.

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, some IMCES clients (33.3%) maintained one of these activities.

Constructive Activities		
Percentage of clients who maintained or began the a		
IMCES	Assessment 1 vs. 5	
Employment	16.7% (N=6)	
Volunteer	0.0% (N=6)	
School	33.3% (N=6)	
Any Activity	33.3% (N=6)	

### Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, no IMCES clients (100.0%) had been homeless during previous six months. From baseline to twelve months 100.0% of clients with matched assessments maintained housing.

### **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was not enough data to analyze change from baseline to twelve months.

## Baseline ISMI Scores (All Clients N=29) Minimal to no internalized 17.2% stigma Mild internalized stigma 31.0% 44.8% Moderate internalized Severe internalized stigma

## CLIENT SATISFACTION

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 100.0% (N=3) of IMCES clients had high overall satisfaction, indicated by a score of four or greater.

Client Satisfaction with Services				
	Percent who increased or maintained high satisfaction			
	Assessment 3			
I was able to get all the services I thought I needed.	100.0% (N=3)			
I felt comfortable asking questions about my				
treatment and medication.	100.0% (N=3)			
Staff were sensitive to my cultural background (race,				
religion, language, etc.).	100.0% (N=3)			
This program meets both my mental and physical				
health care needs.	100.0% (N=3)			
My beliefs about health and well-being were				
considered as part of the services that I received				
here.	100.0% (N=3)			

### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 100.0% of IMCES clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background and had considered their beliefs about health and well-being as part of the services.

### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." All IMCES clients (100.0%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. All IMCES clients (100.0%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

### Integration

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 100.0% of IMCES clients "Agreed" or "Strongly Agreed" with this item.

# **Jewish Family Service**

# Eastern European/Middle Eastern ISM

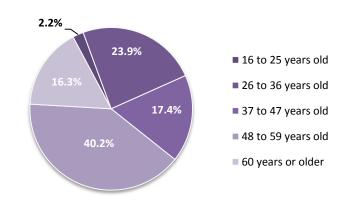
Jewish Family Service of Los Angeles is a non-sectarian organization that has a long and continuous history of providing services to families and individuals in need. Since its inception in 1854, the agency has evolved into a multifaceted, multi-service organization. Their mission is to strengthen and enhance individual, family, and community life by providing a wide range of services at every stage of the life cycle, especially to those who are poor and disadvantaged. The Jewish Family Service mental health services program provides social service counseling and case management, including comprehensive mental health services to older adults with mental illness, in multi-ethnic and multi-linguistic communities. Jewish Family Service's client services delivery philosophy is client-focused, emphasizing client empowerment, resilience, and recovery, utilizing integration of services and a holistic approach. Included in this approach is a commitment to culturally competent and linguistically sensitive staffing. Finally, Jewish Family Service is committed to developing collaborative partnerships that extend and expand their ability to provide services that are non-duplicative and responsive to the specific needs of their target population.

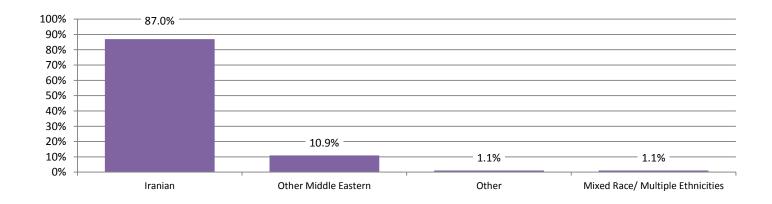
### ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS

To date, Jewish Family Service has enrolled 92 clients. Of these, 33 (35.9%) have been discharged from the program for any reason. Of the discharged clients, 9 (27.3%) met their treatment goals and were transitioned to a lower level of care.

Jewish Family Service clients are most likely to be between the ages of 48 and 59 (40.2%). The majority of the clients served are female (66.3%).

Jewish Family Service clients are most likely to identify as Iranian (87.0%), followed by Other Middle Eastern (10.9%).





### **MENTAL HEALTH OUTCOMES**

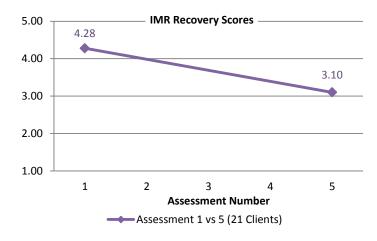
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

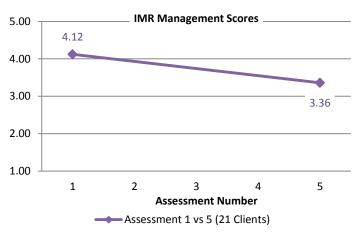
For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across Jewish Family Service clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 90.5% and 76.2% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, Jewish Family Service clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.





Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve

months, clients had significantly more frequent contact with friends. Many Jewish Family Service clients with matched assessments increased the level of involvement of their family and friends in their treatment (20.0%) and the amount of time they spend with people outside their family (47.6%) from baseline to twelve months.

### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the 8 stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was no significant change in MORS scores from baseline to twelve months for Jewish Family Service clients with matched assessments. Several Jewish Family Service clients had a clinically meaningful increase in MORS scores from baseline to twelve months (47.6%).

Milestones of Recovery (MORS) Ratings				
		Assessme	ent 1 vs. 5	
Rating	Stage of Recovery	(21 Cl	ients)	
1	Extreme Risk	0.0%	0.0%	
2	High Risk/Not Engaged	0.0%	0.0%	
3	High Risk/Engaged	0.0%	0.0%	
4	Poorly Coping/Not Engaged	0.0%	4.8%	
5	Poorly Coping/Engaged	76.2%	38.1%	
6	Coping/Rehabilitating	23.8%	57.1%	
7	Early Recovery	0.0%	0.0%	
8	Advanced Recovery	0.0%	0.0%	

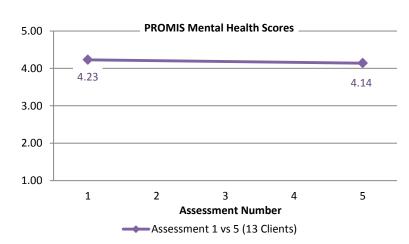
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, 100.0% of Jewish Family Service clients with matched samples were engaged at baseline based on their MORS scores. At twelve months, 95.2% of clients were engaged in their recovery.

# Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores did not change significantly from the baseline to the twelve month assessment for Jewish Family Service clients with matched assessments. Several clients had a clinically meaningful improvement during that time (30.8%).

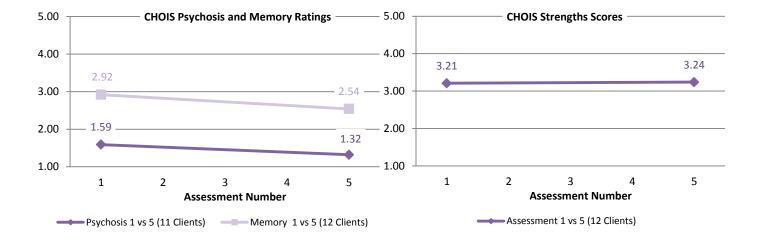


# **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales did not change significantly from the baseline to the twelve month assessment. However, many Jewish Family Service clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (81.8%, 33.3% respectively).

Across Jewish Family Service clients with matched assessments, there was no significant change in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. Several Jewish Family Service clients maintained healthy scores or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (41.6%).

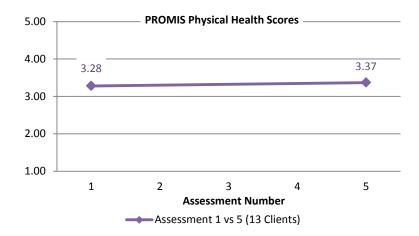


### PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers - body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# **PROMIS Global Health – Physical Health Scale**

PROMIS Physical Health scores did not significantly change from the baseline to the twelve month assessment. Clinically meaningful improvement in physical health was seen for some (30.8%) Jewish Family Service clients with matched assessments from baseline to twelve months.



# **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

### **Health Screening**

The graph below shows the percentage of Jewish Family Service clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

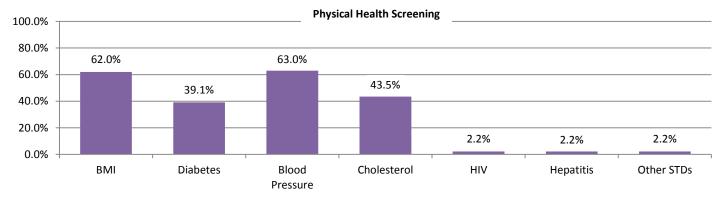


Chart provides the percentage of all Jewish Family Service clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged Jewish Family Service clients are included in the calculation of percentages, N=92.

### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment compared to baseline for Jewish Family Service clients with matched assessments. However, some clients had a clinically meaningful improvement in BMI from baseline to twelve months (10.5%). Other clients maintained a healthy BMI during the same time period (26.3%).

Body Mass Index (BMI) Categorization						
Assessment # Underweight Normal Weight Overweight Obese						
Matched Sample Assessment 1 vs. 5 (19 Clients)						
1	0.0%	31.6%	15.8%	52.6%		
5	0.0%	26.3%	31.6%	42.1%		

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was a significant reduction in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. Additionally, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (40.9%). Other clients maintained a healthy blood pressure during the same time period (13.6%).

Blood Pressure Categorization					
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis					
Matched Sample	Matched Sample Assessment 1 vs. 5 (22 Clients)				
1	27.3%	50.0%	18.2%	0.0%	4.5%
5	45.5%	50.0%	4.5%	0.0%	0.0%

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories. If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category. There was not enough data to analyze change from baseline to twelve months.

### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category. If a client was categorized at different levels or risk based on their HDL and LDL levels, they were placed into the higher category. There was not enough data to analyze change from baseline to twelve months.

# SUBSTANCE USE

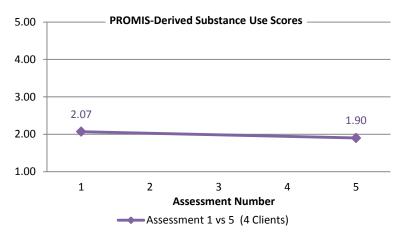
Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

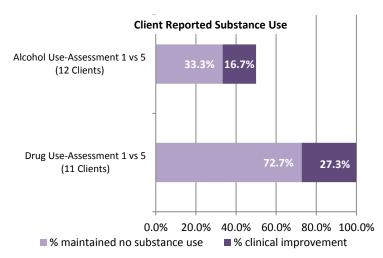
There were no significant changes on the PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment for Jewish Family Service clients with matched assessments. Twelve months after enrollment, 25.0% of Jewish Family Service clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or other drug use and 50.0% maintained a healthy score.



# **Client Reported Substance Use Items**

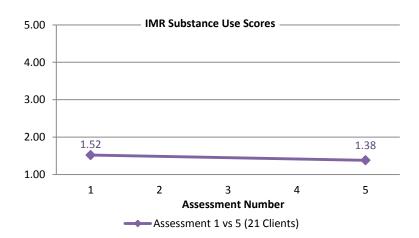
Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey.

For Jewish Family Service clients with matched assessments, there was no significant change in alcohol consumption or illegal drug use twelve months after enrollment compared to baseline. As shown in the chart, some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (16.7%), and several clients maintained no alcohol use from baseline to twelve months (33.3%). The majority of clients maintained no illegal drug use from baseline to twelve months (72.7%) and 27.3% of clients had a clinically meaningful reduction in illegal drug use.



# **Clinician-Reported Substance Use: IMR Substance Use Subscale**

There was no significant change in IMR Substance Use scores for Jewish Family Service clients with matched assessments from baseline to twelve months. However, some clients had a clinically meaningful reduction in substance use scores (14.3%) from baseline to the twelve month rating.



### **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, or enrollment in school, as well as status of housing, mental health stigma, and levels of social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: strong social support, no mental health stigma, or current employment.

### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, many Jewish Family Service clients (41.6%) began or maintained one of these activities.

Constructive Activities			
	Percentage of clients who maintained or began the activity		
Jewish Family Service	Assessment 1 vs. 5		
Employment	27.3% (N=11)		
Volunteer	0.0% (N=11)		
School	18.2% (N=11)		
Any Activity	41.6% (N=12)		

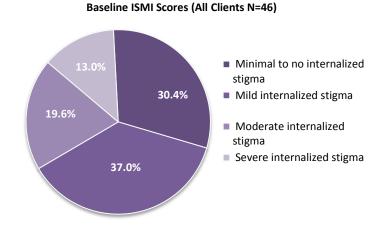
# Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. There was not enough data to analyze change from baseline to twelve months.

### **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was not enough data to analyze change from baseline to twelve months.



### **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 61.5% (N=13) of Jewish Family Service clients had high overall satisfaction, indicated by a score of four or greater.

Client Satisfaction with Services					
	Percent who increased or maintained high satisfaction				
	Assessment 3				
I was able to get all the services I thought I needed.	76.9% (N=13)				
I felt comfortable asking questions about my					
treatment and medication.	69.2% (N=13)				
Staff were sensitive to my cultural background (race,					
religion, language, etc.).	75.0% (N=12)				
This program meets both my mental and physical					
health care needs.	76.9% (N=13)				
My beliefs about health and well-being were					
considered as part of the services that I received					
here.	58.3% (N=12)				

## **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 75.0% of Jewish Family Service clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background. 58.3% of clients "Agreed" or "Strongly Agreed" that staff had considered their beliefs about health and well-being as part of the services.

#### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Many Jewish Family Service clients (69.2%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Many Jewish Family Service clients (76.9%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

### **Integration**

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 76.9% of Jewish Family Service clients "Agreed" or "Strongly Agreed" with this item.

# **Alma Family Services**

### **Latino ISM**

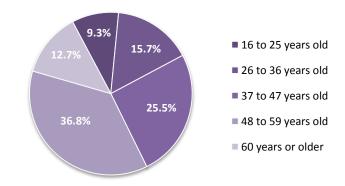
The primary mission of Alma Family Services is to maximize the potential of adults and children manifesting severe and persistent mental disorders that may be compounded by emotional, physical and/or developmental delays, in order to allow the individual to grow and develop emotionally, socially, vocationally and physically. Alma Family Services has been in existence for more than 35 years, and has an established history of advocating for, empowering and serving underserved populations. Alma Family Services has supported Latino families in developing groups for family members and parents of special needs individuals. Alma Family Services has a long history of working collaboratively with many other community-based organizations, widening the breath of resources available to the community served. The various collaborative organizations include healthcare, substance abuse, housing, transportation, local libraries, faith-based organizations, as well as local law enforcement agencies. Alma Family Services provides a comprehensive range of human services including quality specialized mental health services, medication support services, therapeutic behavioral services, wraparound, case management, and program consultation.

### **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, Alma Family Services has enrolled 204 adult clients. Of these, 69 (33.8%) have been discharged from the program for any reason. Of the discharged clients, 22 (31.9%) met their treatment goals and were transitioned to a lower level of care.

Alma Family Services clients are most likely to be between the ages of 37 and 59 (62.3%). The majority of the clients served are female (69.1%).

Almost all of the clients served by Alma Family Services identify as Latino (99.5%).



# **MENTAL HEALTH OUTCOMES**

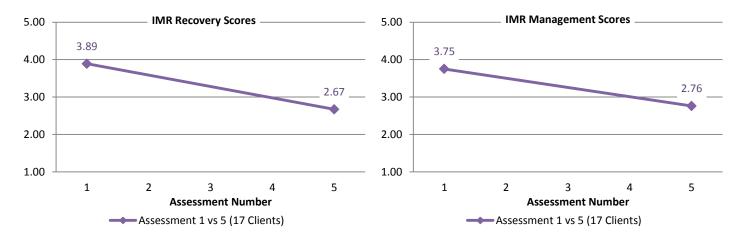
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

# Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across Alma Family Services clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 88.2% and 64.7% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, Alma Family Services clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months, clients were significantly more likely to have family or friends involved in their treatment, and had significantly more frequent contact with friends. Many Alma Family Services clients with matched assessments increased the level of involvement of their family and friends in their treatment (58.8%) and the amount of time they spend with people outside their family (58.8%) from baseline to twelve months.

### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months for Alma Family Services clients with matched assessments. The majority of Alma Family Services clients had a clinically meaningful increase in MORS scores from baseline to twelve months (87.5%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first year of services.

Milestones of Recovery (MORS) Ratings				
Rating	Rating Stage of Recovery			
1	Extreme Risk	0.0%	0.0%	
2	High Risk/Not Engaged	12.5%	6.3%	
3	High Risk/Engaged	68.8%	0.0%	
4	Poorly Coping/Not Engaged	0.0%	0.0%	
5	Poorly Coping/Engaged	18.8%	18.8%	
6	Coping/Rehabilitating	0.0%	37.5%	
7	Early Recovery	0.0%	37.5%	
8	Advanced Recovery	0.0%	0.0%	

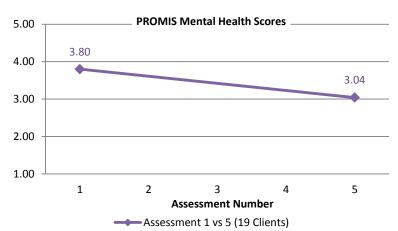
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, 87.5% of Alma Family Services clients with matched samples were engaged at baseline based on their MORS scores. At twelve months, 93.8% of clients were engaged in their recovery.

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) - 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores decreased significantly from the baseline to the twelve month assessment for Alma Family Services clients with matched assessments. Additionally, most clients had a clinically meaningful improvement during that time (63.2%). This suggests that Alma Family Services clients experienced significant improvements in mental health after enrolling in services.

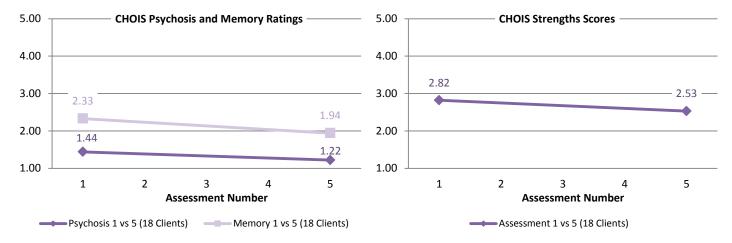


# **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales did not change significantly from the baseline to the twelve month assessment. However, many Alma Family Services clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (88.9%, 66.6% respectively).

Across Alma Family Services clients with matched assessments, there was a significant improvement in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. Additionally, many Alma Family Services clients maintained a healthy score or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (44.5%).

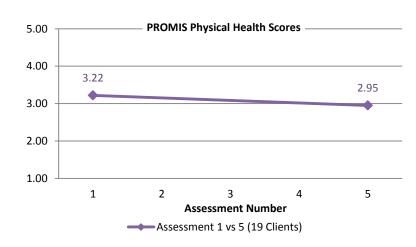


### PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

## PROMIS Global Health - Physical Health Scale

PROMIS Physical Health scores decreased significantly from the baseline to the twelve month assessment. Additionally, clinically meaningful improvement in physical health was seen for many Alma Family Services clients (42.1%) from baseline to twelve months. This suggests that Alma Family Services clients experienced significant improvements in physical health after enrolling in services.



### **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey, which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

### **Health Screening**

The graph below shows the percentage of Alma Family Services clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

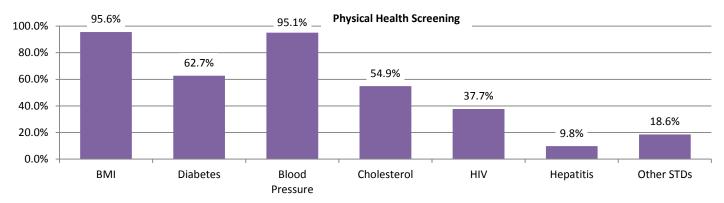


Chart provides the percentage of all Alma Family Services clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged Alma clients are included in the calculation of percentages, N=204.

### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment compared to baseline for Alma Family Services clients with matched assessments. However, some clients had a clinically meaningful improvement in BMI from baseline to twelve months (15.0%), while other clients maintained a healthy BMI from baseline to twelve months (5.0%).

Body Mass Index (BMI) Categorization						
Assessment # Underweight Normal Weight Overweight Obese						
Matched Sample Assessment 1 vs. 5 (20 Clients)						
1 0.0% 5.0% 35.0% 60.0%						
5	0.0%	10.0%	35.0%	55.0%		

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (20.0%). Other clients maintained a healthy blood pressure during the same time period (30.0%).

Blood Pressure Categorization					
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis					
Matched Sample	Matched Sample Assessment 1 vs. 5 (20 Clients)				
1	40.0%	60.0%	0.0%	0.0%	0.0%
5	50.0%	40.0%	10.0%	0.0%	0.0%

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was a significant increase in diabetes risk from baseline to twelve months after enrollment. However, some clients maintained healthy A1C and glucose levels during the same time period (16.7%).

		Diabetes C	ategorization		
	Low Blood Sugar	Normal	High Normal	Pre-Diabetic	Diabetic
Matched Sample	Matched Sample Assessment 1 vs. 5 (6 Clients)				
1	0.0%	16.7%	0.0%	50.0%	33.3%
5	0.0%	0.0%	16.7%	0.0%	83.3%

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve month assessment. However, some clients had a clinically meaningful improvement in heart disease from baseline to twelve months (14.3%).

Cholesterol Categorization						
	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk	
Matched Sample	Matched Sample Assessment 1 vs. 5 (7 Clients)					
1	0.0%	0.0%	28.6%	71.4%	0.0%	
5	0.0%	14.3%	14.3%	71.4%	0.0%	

# **SUBSTANCE USE**

Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients

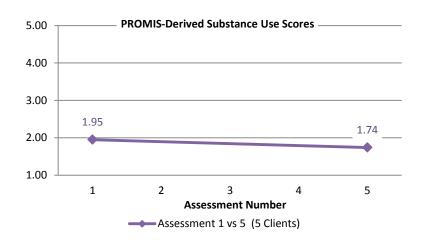
were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

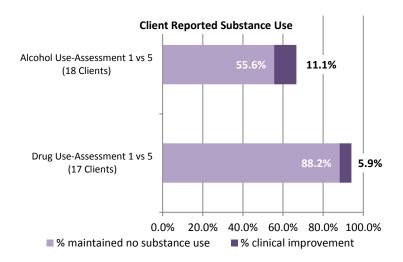
There were no significant changes on the PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment for Alma Family Services clients with matched assessments. Twelve months after enrollment, 60.0% of clients maintained a healthy score.



### Client Reported Substance Use Items

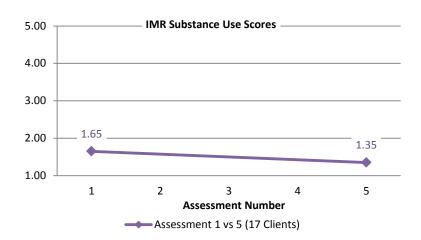
Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey.

For Alma Family Services clients with matched assessments, there was no significant change in alcohol consumption or illegal drug use twelve months after enrollment compared to baseline. As shown in the chart, some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (11.1%), and many clients maintained no alcohol use from baseline to twelve months (55.6%). The majority of clients maintained no illegal drug use from baseline to twelve months (88.2%) and 5.9% of clients had a clinically meaningful reduction in illegal drug use.



# **Clinician-Reported Substance Use: IMR Substance Use Subscale**

There was no significant change in IMR Substance Use scores for Alma Family Services clients with matched assessments from baseline to twelve months. However, some clients had a clinically meaningful reduction in substance use scores (11.8%) from baseline to twelve months rating.



### **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, or enrollment in school, as well as status of housing, mental health stigma, and levels of social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: strong social support, no mental health stigma, or current employment.

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, many Alma Family Services clients (50.0%) began or maintained one of these activities.

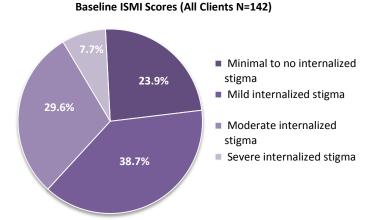
Constructive Activities		
	Percentage of clients who maintained or began the activity	
Alma Family Services	Assessment 1 vs. 5	
Employment	33.4% (N=18)	
Volunteer	16.7% (N=18)	
School	16.7% (N=18)	
Any Activity	50.0% (N=18)	

# Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, no Alma Family Services clients had been homeless during previous six months. From baseline to twelve months 100.0% of clients' maintained housing.

### **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.



There was no significant change in internalized stigma ratings from baseline to twelve months after enrollment for Alma Family Services clients with matched assessments; however, 37.5% of clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) or maintained minimal to no internalized stigma.

### **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 70.8% (N=24) of Alma Family Services clients had high overall satisfaction, indicated by a score of four or greater.

Client Satisfaction with Services			
	Percent who increased or maintained high satisfaction		
	Assessment 3		
I was able to get all the services I thought I needed.	91.7% (N=24)		
I felt comfortable asking questions about my			
treatment and medication.	95.8% (N=24)		
Staff were sensitive to my cultural background (race,			
religion, language, etc.).	87.5% (N=24)		
This program meets both my mental and physical			
health care needs.	83.3% (N=24)		
My beliefs about health and well-being were			
considered as part of the services that I received			
here.	87.5% (N=24)		

### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 87.5% of Alma Family Services clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background and had considered their beliefs about health and well-being as part of the services.

### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It is paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Most Alma Family Services clients (95.8%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Most Alma Family Services clients (91.7%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

### **Integration**

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 83.3% of Alma Family Services clients "Agreed" or "Strongly Agreed" with this item.

# Los Angeles Child Guidance/Barbour & Floyd

### **Latino ISM**

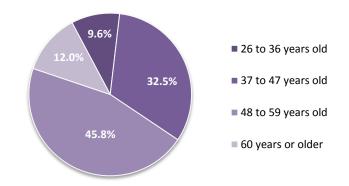
The Los Angeles Child Guidance Clinic was established in 1924 as part of a nationwide initiative to create access to mental health services for emotionally disturbed children. LA Child Guidance's mission is to provide quality mental services to a community in great need by ensuring easy access and promoting early intervention. LA Child Guidance offers a spectrum of services, including: prevention and early intervention, outpatient services provided in homes and at the clinic, school-based services, and intensive services including Full Service Partnerships and Wraparound. LA Child Guidance engages allied community organizations to effectively create a referral network with key partners, including both traditional and non-traditional within the Latino UREP community. LA Child Guidance has partnered with Barbour & Floyd to implement the ISM service model.

# ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS

To date, LA Child Guidance has enrolled 83 clients. Of these, 51 (61.4%) have been discharged from the program for any reason. Of the discharged clients, 26 (51.0%) met their treatment goals and were transitioned to a lower level of care.

LA Child Guidance clients are most likely to be between the ages of 48 and 59 (45.8%). The majority of the clients served are female (77.1%).

The majority of clients served by LA Child Guidance identified as Latino (98.8%), and a small percentage of clients identified as mixed race/multiple ethnicities (1.2%).



# **MENTAL HEALTH OUTCOMES**

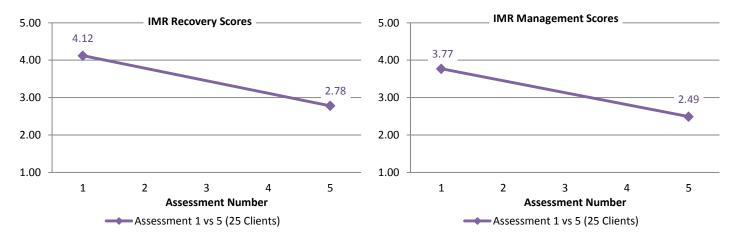
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

# Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across LA Child Guidance clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 80.0% and 76.0% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, LA Child Guidance clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months, clients had significantly more frequent contact with friends. Many LA Child Guidance clients with matched assessments increased the level of involvement of their family and friends in their treatment (28.0%) and the amount of time they spend with people outside their family (64.0%) from baseline to twelve months.

# Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months for LA Child Guidance clients with matched assessments. The majority of LA Child Guidance clients had a clinically meaningful increase in MORS scores from baseline to twelve months (72.7%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first year of services.

Milestones of Recovery (MORS) Ratings				
Rating	Assessment 1 vs. 5 (22 Clients)			
1	Extreme Risk	0.0%	0.0%	
2	High Risk/Not Engaged	0.0%	0.0%	
3	High Risk/Engaged	18.2%	9.1%	
4	Poorly Coping/Not Engaged	9.1%	4.5%	
5	Poorly Coping/Engaged	59.1%	18.2%	
6	Coping/Rehabilitating	13.6%	50.0%	
7	Early Recovery	0.0%	9.1%	
8	Advanced Recovery	0.0%	9.1%	

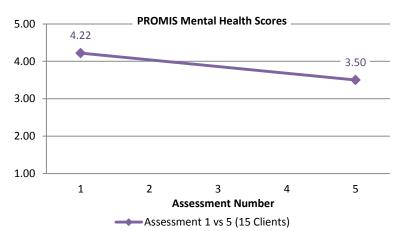
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, 90.9% of LA Child Guidance clients with matched samples were engaged at baseline based on their MORS scores. At twelve months, 95.5% of clients were engaged in their recovery.

# **Patient Reported Outcomes Measurement Information System (PROMIS)**

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) - 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores decreased significantly from the baseline to the twelve month assessment for LA Child Guidance clients with matched assessments. Additionally, most clients had a clinically meaningful improvement during that time (73.3%). This suggests that LA Child Guidance clients experienced significant improvements in mental health after enrolling in services.

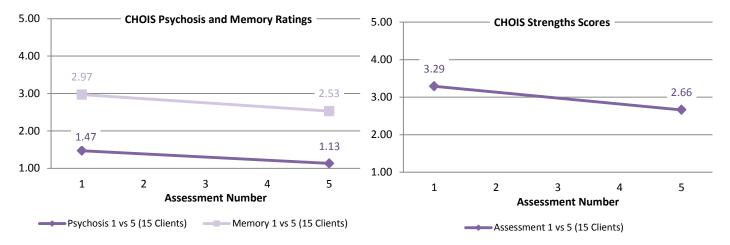


# Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis and the Memory/Cognitive Impairment scales decreased significantly from the baseline to the twelve month assessment. Additionally, many LA Child Guidance clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (100.0%, 40.0% respectively).

Across LA Child Guidance clients with matched assessments, there was a significant improvement in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. Additionally, many LA Child Guidance clients maintained a healthy score or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (66.7%).

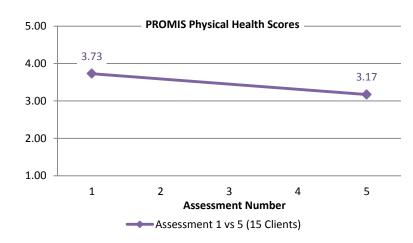


### PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# PROMIS Global Health – Physical Health Scale

PROMIS Physical Health scores decreased significantly from the baseline to the twelve month assessment. Additionally, clinically meaningful improvement in physical health was seen for most LA Child Guidance clients (66.7%) with matched assessments from baseline to twelve months. This suggests that LA Child Guidance clients experienced significant improvements in physical health after enrolling in services.



### **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

### **Health Screening**

The graph below shows the percentage of LA Child Guidance clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

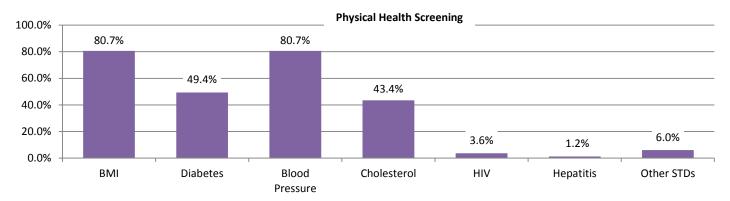


Chart provides the percentage of all LA Child Guidance/Barbour & Floyd clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged LACGC clients are included in the calculation of percentages, N=83.

### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment compared to baseline for LA Child Guidance clients with matched assessments. However, some clients had a clinically meaningful improvement in BMI from baseline to twelve months (6.7%), while other clients maintained a healthy BMI from baseline to twelve months (6.7%).

Body Mass Index (BMI) Categorization						
Assessment # Underweight Normal Weight Overweight Obese						
Matched Sample Assessment 1 vs. 5 (15 Clients)						
1 0.0% 6.7% 13.3% 80.0%						
5	0.0%	6.7%	13.3%	80.0%		

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (31.3%). Other clients maintained a healthy blood pressure during the same time period (18.8%).

Blood Pressure Categorization						
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis						
Matched Sample	Matched Sample Assessment 1 vs. 5 (16 Clients)					
1	31.3%	37.5%	18.8%	6.3%	6.3%	
5	31.3%	37.5%	18.8%	12.5%	0.0%	

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no significant change in diabetes risk from baseline to twelve months after enrollment. However, some clients maintained healthy A1C and glucose levels during the same time periods (16.7%).

Diabetes Categorization						
Low Blood Sugar Normal High Normal Pre-Diabetic Diabetic						
Matched Sample Assessment 1 vs. 5 (6 Clients)						
1	0.0%	33.3%	16.7%	16.7%	33.3%	
5	0.0%	0.0%	16.7%	16.7%	66.7%	

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve month assessment. However, many clients had a clinically meaningful improvement in heart disease from baseline to twelve months (66.7%).

Cholesterol Categorization						
Near Optimal Borderline High Optimal Level Risk High Risk Very High R						
Matched Sample	Matched Sample Assessment 1 vs. 5 (3 Clients)					
1	0.0%	0.0%	33.3%	66.7%	0.0%	
5	0.0%	66.7%	0.0%	33.3%	0.0%	

### **SUBSTANCE USE**

Changes in clients' substance use were assessed using client self-report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients

were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

There was not enough data to analyze change from baseline to twelve months.

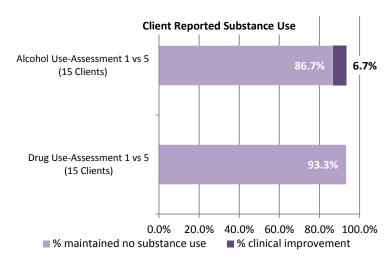
### **Client Reported Substance Use Items**

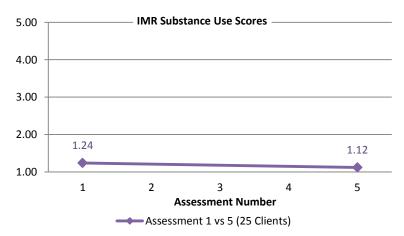
Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey.

For LA Child Guidance clients with matched assessments, there was no significant change in alcohol consumption or illegal drug use twelve months after enrollment compared to baseline. As shown in the chart, some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (6.7%), and most clients maintained no alcohol use from baseline to twelve months (86.7%). The majority of clients maintained no illegal drug use from baseline to twelve months (93.3%).



There was no significant change in IMR Substance Use scores for LA Child Guidance clients with matched assessments from baseline to twelve months. However, some clients had a clinically meaningful reduction in substance use scores (4.0%) from baseline to the twelve month rating.





# **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, or enrollment in school, as well as status of housing, mental health stigma, and levels of social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy"

ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: strong social support, no mental health stigma, or current employment.

### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, some LA Child Guidance clients (33.3%) began or maintained one of these activities.

Constructive Activities		
Percentage of clients who maintained or began the a		
LA Child Guidance	Assessment 1 vs. 5	
Employment	21.4% (N=14)	
Volunteer	7.1% (N=14)	
School	0.0% (N=15)	
Any Activity	33.3% (N=15)	

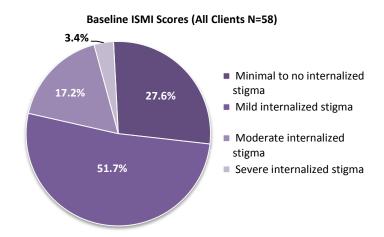
## Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, no LA Child Guidance clients had been homeless during previous six months. From baseline to twelve months 100.0% of clients' maintained housing.

### Stigma

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was no significant change in internalized stigma ratings from baseline to twelve months



after enrollment for LA Child Guidance clients with matched assessments. 14.3% of clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) or maintained minimal to no internalized stigma.

# **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 100.0% (N=10) of LA Child Guidance clients had high overall satisfaction, indicated by a score of four or greater.

Client Satisfaction with Services			
	Percent who increased or maintained high satisfaction		
	Assessment 3		
I was able to get all the services I thought I needed.	100.0% (N=10)		
I felt comfortable asking questions about my			
treatment and medication.	100.0% (N=10)		
Staff were sensitive to my cultural background (race,			
religion, language, etc.).	100.0% (N=10)		
This program meets both my mental and physical			
health care needs.	100.0% (N=10)		
My beliefs about health and well-being were			
considered as part of the services that I received			
here.	100.0% (N=10)		

### Client Perception of Care

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

### Cultural Competency

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 100.0% of LA Child Guidance clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background and had considered their beliefs about health and well-being as part of the services.

#### Engagement

Clinician perception of engagement in the INN program was captured through the MORS. It is paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." All LA Child Guidance clients who completed the scale (100.0%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. All LA Child Guidance clients who completed the scale "Agreed" or "Strongly Agreed" with this item at the six month assessment.

### Integration

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 100.0% of LA Child Guidance clients "Agreed" or "Strongly Agreed" with this item.

# St. Joseph Center

### **Latino ISM**

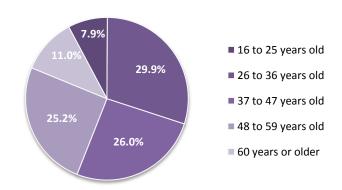
St. Joseph Center is a nonprofit community organization whose mission is to provide working-poor families, as well as homeless men, women and children of all ages, with the inner resources and tools to become productive, stable, and self-supporting members of the community. St. Joseph works closely with numerous collaborative partners to ensure programs are complementary and services are coordinated for each individual and family. This is accomplished through formal contractual collaborations as well as general referrals. Annually, St. Joseph provides 6000 individuals with multifaceted intervention, prevention and education services across a broad range of programs. St. Joseph's services are strategically integrated, target a broad range of client populations, and are founded on intensive, individualized care.

### ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS

To date, St. Joseph Center has enrolled 127 clients. Of these, 35 (27.6%) have been discharged from the program for any reason. Of the discharged clients, 6 (17.1%) met their treatment goals and were transitioned to a lower level of care.

St. Joseph Center clients are most likely to be between the ages of 26 and 59 (81.1%). The majority of the clients served are female (81.9%).

The majority of clients served by St. Joseph Center identified as Latino (98.4%), and a small percentage of clients identified as mixed race/multiple ethnicities (0.8%) or did not report (0.8%).



### **MENTAL HEALTH OUTCOMES**

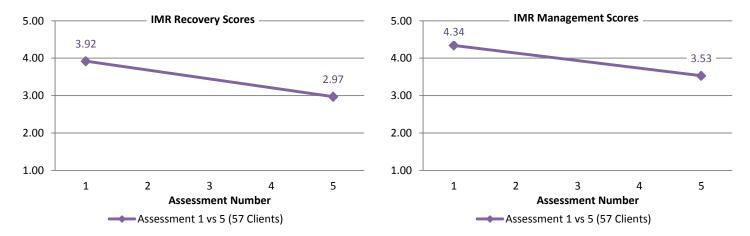
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For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

# Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across St. Joseph Center clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 80.7% and 63.2% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, St. Joseph Center clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months, clients were significantly more likely to have family or friends involved in their treatment. Many St. Joseph Center clients with matched assessments increased the level of involvement of their family and friends in their treatment (42.1%) and the amount of time they spend with people outside their family (37.5%) from baseline to twelve months.

### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8,) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months for St. Joseph Center clients with matched assessments. Many St. Joseph Center clients had a clinically meaningful increase in MORS scores from baseline to twelve months (51.9%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first year of services.

Milestones of Recovery (MORS) Ratings				
Rating	Assessment 1 vs. 5 (54 Clients)			
1	Extreme Risk	0.0%	0.0%	
2	High Risk/Not Engaged	0.0%	3.7%	
3	High Risk/Engaged	14.8%	3.7%	
4	Poorly Coping/Not Engaged	9.3%	7.4%	
5	Poorly Coping/Engaged	64.8%	40.7%	
6	Coping/Rehabilitating	11.1%	35.2%	
7	Early Recovery	0.0%	7.4%	
8	Advanced Recovery	0.0%	1.9%	

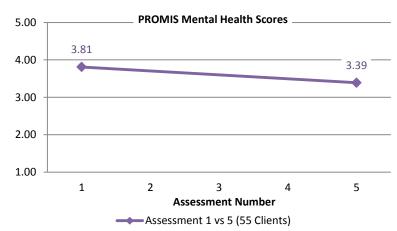
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, 90.7% of St. Joseph Center clients with matched samples were engaged at baseline based on their MORS scores. At twelve months, 88.9% of clients were engaged in their recovery.

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) - 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores decreased significantly from the baseline to the twelve month assessment for St. Joseph Center clients with matched assessments. Additionally, most clients had a clinically meaningful improvement during that time (56.4%). This suggests that St. Joseph Center clients experienced significant improvements in mental health after enrolling in services.

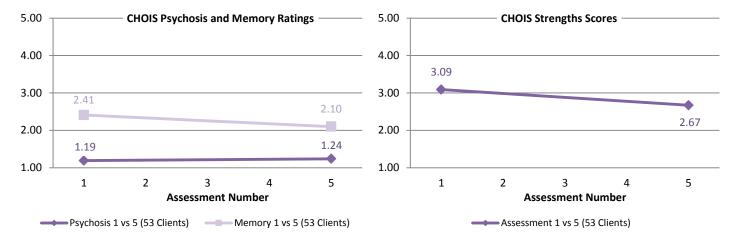


# Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/ Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Memory/Cognitive Impairment scale decreased significantly from the baseline to the twelve month assessment. However, average scores on the CHOIS Psychosis scale did not change significantly from the baseline to the twelve months assessment, Many St. Joseph Center clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (88.6%, 45.3% respectively).

Across St. Joseph Center clients with matched assessments, there was a significant improvement in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. Additionally, many St. Joseph Center clients maintained a healthy score or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (47.2%).

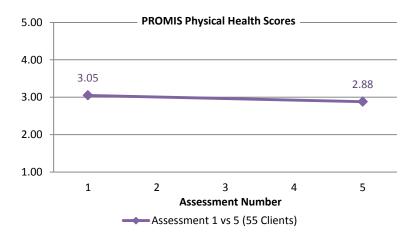


# PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# **PROMIS Global Health – Physical Health Scale**

PROMIS Physical Health scores decreased significantly from the baseline to the twelve month assessment. Additionally, clinically meaningful improvement in physical health was seen for some St. Joseph Center clients (30.9%) with matched assessments from baseline to twelve months. This suggests that St. Joseph Center clients experienced significant improvements in physical health after enrolling in services.



### **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

### **Health Screening**

The graph below shows the percentage of St. Joseph Center clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

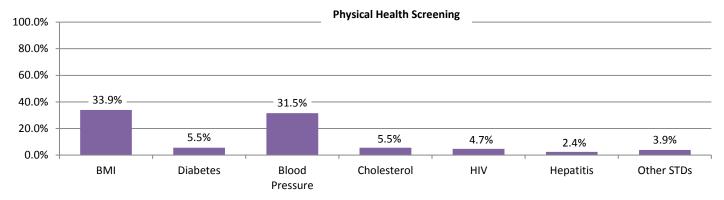


Chart provides the percentage of all St. Joseph Center clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged St. Joseph Center clients are included in the calculation of percentages, N=127.

### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These are used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve months after enrollment compared to baseline for St. Joseph Center clients with matched assessments. However, some clients had a clinically meaningful improvement in BMI from baseline to twelve months (14.3%), while other clients maintained a healthy BMI from baseline to twelve months (14.3%).

Body Mass Index (BMI) Categorization						
Assessment # Underweight Normal Weight Overweight Obese						
Matched Sample Assessment 1 vs. 5 (7 Clients)						
1 0.0% 14.3% 57.1% 28.6%						
5	0.0%	28.6%	42.9%	28.6%		

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (33.3%). Other clients maintained a healthy blood pressure during the same time period (16.7%).

Blood Pressure Categorization										
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis										
Matched Sample	Assessment 1 vs. 5 (	6 Clients)								
1	50.0%	33.3%	0.0%	16.7%	0.0%					
5	33.3%	50.0%	16.7%	0.0%	0.0%					

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories. If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category. There was not enough data to analyze change from baseline to twelve months.

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category. There was not enough data to analyze change from baseline to twelve months.

### SUBSTANCE USE

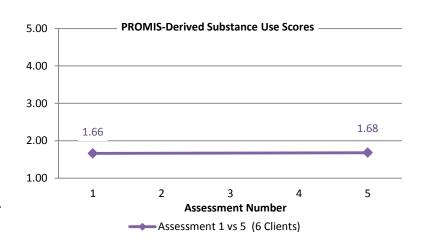
Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

There were no significant changes on the PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment for St. Joseph Center

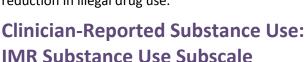


clients with matched assessments. Twelve months after enrollment, 50.0% of clients maintained a healthy score.

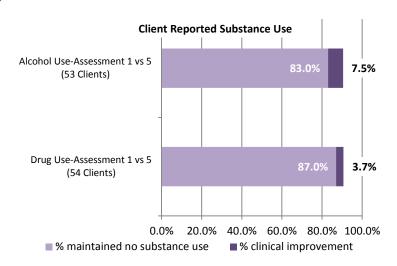
### **Client Reported Substance Use Items**

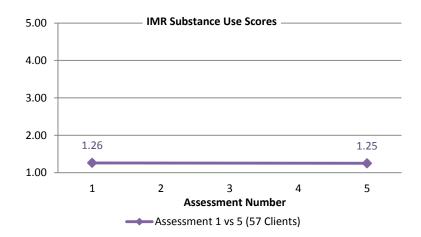
Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey.

For St. Joseph Center clients with matched assessments, there was no significant change in alcohol consumption or illegal drug use twelve months after enrollment compared to baseline. As shown in the chart, some clients had a clinically meaningful reduction in alcohol use from baseline to twelve months (7.5%), and most clients maintained no alcohol use from baseline to twelve months (83.0%). The majority of clients maintained no illegal drug use from baseline to twelve months (87.0%) and 3.7% of clients had a clinically meaningful reduction in illegal drug use.



There was no significant change in IMR Substance Use scores for St. Joseph Center clients with matched assessments from baseline to twelve months. However, some clients had a clinically meaningful reduction in substance use scores (3.5%) from baseline to twelve months rating.





### **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, or enrollment in school, as well as status of housing, mental health stigma, and levels of social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: strong social support, no mental health stigma, or current employment.

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, most St. Joseph Center clients (72.3%) began or maintained one of these activities.

Constructive Activities						
	Percentage of clients who maintained or began the activity					
St. Joseph Center	Assessment 1 vs. 5					
Employment	44.4% (N=54)					
Volunteer	29.7% (N=54)					
School	15.1% (N=53)					
Any Activity	72.3% (N=54)					

### Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, few St. Joseph Center clients (2.3%) had been homeless during previous six months; as a result homelessness did not significantly decrease from baseline to 12 months. From baseline to twelve months 97.7% of clients' maintained housing and 2.3% were homeless for fewer days.

### Stigma

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was a significant reduction in internalized stigma ratings from baseline to twelve months after enrollment for St. Joseph Center clients with

Baseline ISMI Scores (All Clients N=79) 5.1% Minimal to no internalized stigma Mild internalized stigma 30.4% 58.2% Moderate internalized Severe internalized stigma

matched assessments. Additionally, half (50.0%) of clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) or maintained minimal to no internalized stigma.

### **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### Overall Satisfaction

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 81.8% (N=22) of St. Joseph Center clients had high overall satisfaction, indicated by a score of four or greater.

Client Satisfaction with Services								
	Percent who increased or maintained high satisfaction							
	Assessment 3							
I was able to get all the services I thought I needed.	95.5% (N=22)							
I felt comfortable asking questions about my								
treatment and medication.	100.0% (N=22)							
Staff were sensitive to my cultural background (race,								
religion, language, etc.).	100.0% (N=22)							
This program meets both my mental and physical								
health care needs.	95.5% (N=22)							
My beliefs about health and well-being were								
considered as part of the services that I received								
here.	95.5% (N=22)							

### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 100.0% of St. Joseph Center clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background. Most clients (95.5%) "Agreed" or "Strongly Agreed" that staff had considered their beliefs about health and well-being as part of the services.

### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." All St. Joseph Center clients who completed the scale (100.0%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Most St. Joseph Center clients (95.5%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

### **Integration**

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 95.5% of St. Joseph Center clients "Agreed" or "Strongly Agreed" with this item.

### **Tarzana Treatment Center**

### **Latino ISM**

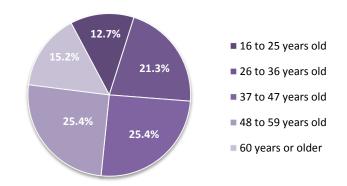
The mission of Tarzana Treatment Center is to address a wide range of the community's health care and social service needs with responsive alcohol and drug treatment; HIV/AIDS treatment, prevention and education; mental health treatment and education; primary outpatient medical care; and other areas of healthcare services. Since 1972, the comprehensive range of services provided by Tarzana Treatment Center has been developed around the needs of at-risk individuals and their families, especially those with dual diagnoses. Tarzana Treatment Center's services include: inpatient detox and psychiatric services, residential AOD treatment, women and children services, youth specific AOD and mental health services, primary medical care, criminal justice programs, HIV programs, and tobacco cessation and prevention programs. Tarzana Treatment Center has strong linkages with other community resources and public agencies, including agencies that provide mental health services.

### ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS

To date, Tarzana Treatment Center has enrolled 197 clients. Of these, 80 (40.6%) have been discharged from the program for any reason. Of the discharged clients, 27 (33.8%) met their treatment goals and were transitioned to a lower level of care.

Tarzana Treatment Center clients are most likely to be between the ages of 26 and 59 (72.1%). The majority of the clients served are female (69.0%).

All of the clients served by Tarzana Treatment Center identify as Latino (100.0%).



### **MENTAL HEALTH OUTCOMES**

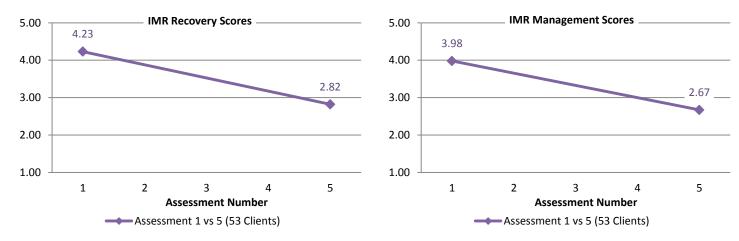
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across Tarzana Treatment Center clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to twelve months. On the Recovery and Management scales respectively, 92.5% and 81.1% of clients had a clinically meaningful improvement from baseline to twelve months. This indicates that, on average, Tarzana Treatment Center clients made notable progress towards their recovery, and improved their ability to manage their mental health across the first year after enrolling in services.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months, clients were significantly more likely to have family or friends involved in their treatment, and had significantly more frequent contact with friends. Many Tarzana Treatment Center clients with matched assessments increased the level of involvement of their family and friends in their treatment (50.9%) and the amount of time they spend with people outside their family (65.4%) from baseline to twelve months.

### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There was a significant increase in MORS scores from baseline to twelve months for Tarzana Treatment Center clients with matched assessments. Many Tarzana Treatment Center clients had a clinically meaningful increase in MORS scores from baseline to twelve months (66.0%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first year of services.

Milestones of Recovery (MORS) Ratings									
- ·	Assessment 1 vs. 5								
Rating	Stage of Recovery	(47 CI	ients)						
1	Extreme Risk	2.1%	0.0%						
2	High Risk/Not Engaged	0.0%	0.0%						
3	High Risk/Engaged	14.9%	0.0%						
4	Poorly Coping/Not Engaged	0.0%	2.1%						
5	Poorly Coping/Engaged	48.9%	34.0%						
6	Coping/Rehabilitating	17.0%	17.0%						
7	Early Recovery	17.0%	38.3%						
8	Advanced Recovery	0.0%	8.5%						

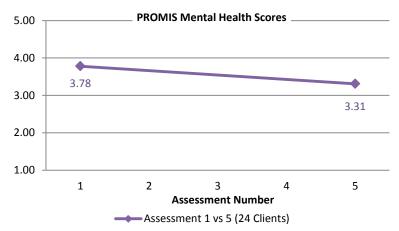
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, 97.9% of Tarzana Treatment Center clients with matched samples were engaged in their recovery at baseline and twelve months based on their MORS scores.

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) - 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores decreased significantly from the baseline to the twelve month assessment for Tarzana Treatment Center clients with matched assessments. Additionally, many clients had a clinically meaningful improvement during that time (45.8%). This suggests that Tarzana Treatment Center clients experienced significant improvements in mental health after enrolling in services.

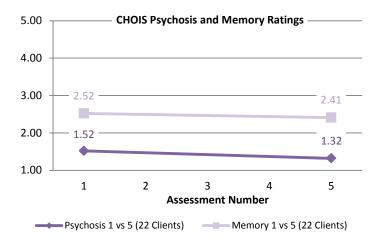


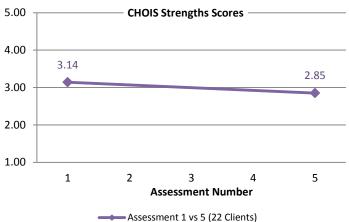
### **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/ Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Average scores on the CHOIS Psychosis scale decreased significantly from the baseline to the twelve month assessment. However, average scores on the CHOIS Memory/Cognitive Impairment scale did not change significantly from the baseline to the twelve months assessment. Many Tarzana Treatment Center clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months after enrollment compared to baseline (81.8%, 45.5% respectively).

Across Tarzana Treatment Center clients with matched assessments, there was a significant improvement in CHOIS Strengths subscale scores from baseline to twelve months after enrollment. Additionally, many Tarzana Treatment Center clients maintained healthy scores or had a clinically meaningful improvement in their Strengths subscale scores twelve months after enrollment (45.4%).



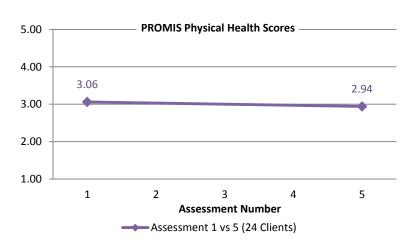


### PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

### PROMIS Global Health – Physical **Health Scale**

PROMIS Physical Health scores did not change significantly from the baseline to the twelve month assessment. However, clinically meaningful improvement in physical health was seen for some Tarzana Treatment Center clients (33.3%) with matched assessments from baseline to twelve months.



### **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of Tarzana Treatment Center clients who were ever screened for each of the physical health conditions during the first twelve months of their enrollment in INN services.

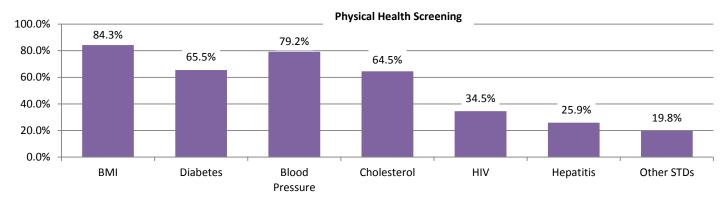


Chart provides the percentage of all Tarzana Treatment Center clients who have ever been screened for the above health conditions within 12 months since enrolling in Innovation services. All current and discharged Tarzana Treatment Center clients are included in the calculation of percentages, N=197.

### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was a significant increase in BMI twelve months after enrollment compared to baseline for Tarzana Treatment Center clients with matched assessments. However, some clients had a clinically meaningful improvement in BMI from baseline to twelve months (2.3%), while other clients maintained a healthy BMI from baseline to twelve months (20.9%).

Body Mass Index (BMI) Categorization										
Assessment # Underweight Normal Weight Overweight Obese										
Matched Sample Asse	Matched Sample Assessment 1 vs. 5 (43 Clients)									
1	0.0%	30.2%	30.2%	39.5%						
5	0.0%	23.3%	20.9%	55.8%						

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure from baseline to twelve months (10.0%). Other clients maintained a healthy blood pressure during the same time period (27.5%).

Blood Pressure Categorization										
Pre- Stage 1 Stage 2 Hypertensive Assessment # Normal Hypertension Hypertension Crisis										
Matched Sample	Assessment 1 vs. 5 (	40 Clients)								
1	37.5%	55.0%	7.5%	0.0%	0.0%					
5	35.0%	45.0%	20.0%	0.0%	0.0%					

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no significant change in diabetes risk from baseline to twelve months after enrollment. However, many clients maintained healthy A1C and glucose levels from baseline to twelve months (40.0%). Other clients had a clinically meaningful improvement in diabetes risk from baseline to twelve months (10.0%).

Diabetes Categorization										
Low Blood Sugar Normal High Normal Pre-Diabetic Dia										
Matched Sample	Assessment 1 vs. 5	(30 Clients)								
1	0.0%	43.3%	23.3%	16.7%	16.7%					
5	0.0%	36.7%	13.3%	36.7%	13.3%					

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels or risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve month assessment. However, many clients maintained healthy cholesterol levels from baseline to twelve months (53.3%) and some clients had a clinically meaningful improvement in heart disease during the same time period (6.7%).

Cholesterol Categorization										
	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk					
Matched Sample	Assessment 1 vs. 5	(30 Clients)								
1	6.7%	46.7%	3.3%	43.3%	0.0%					
5	3.3%	56.7%	0.0%	40.0%	0.0%					

### **SUBSTANCE USE**

Changes in clients' substance use were assessed using client self-report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients

were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

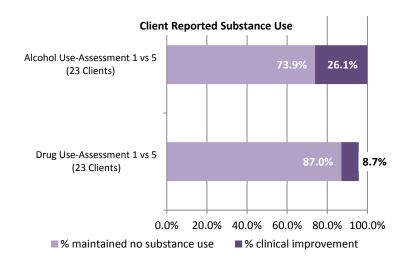
The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

There was not enough data to analyze change from baseline to twelve months.

### **Client Reported Substance Use Items**

Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey.

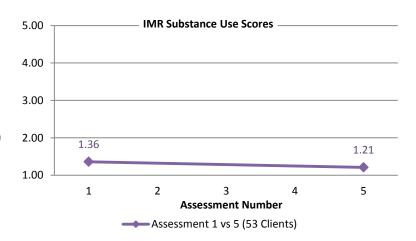
For Tarzana Treatment Center clients with matched assessments, there was a significant reduction in alcohol consumption twelve months after enrollment compared to baseline. As shown in the chart, many clients also had a clinically meaningful reduction in alcohol use from baseline to twelve months (26.1%), and most clients maintained no alcohol use from baseline to twelve months (73.9%). There was no significant change in drug use from baseline to twelve months. The majority of clients maintained no illegal drug use from baseline to twelve months



(87.0%) and 8.7% of clients had a clinically meaningful reduction in illegal drug use.

### **Clinician-Reported Substance Use: IMR Substance Use Subscale**

There was no significant change in IMR Substance Use scores for Tarzana Treatment Center clients with matched assessments from baseline to twelve months. However, some clients had a clinically meaningful reduction in substance use scores (5.7%) from baseline to twelve months rating.



### **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on constructive activities such as employment, volunteer work, or enrollment in school, as well as status of housing, mental health stigma, and

levels of social support. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: strong social support, no mental health stigma, or current employment.

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve months for clients with matched assessments. From baseline to twelve months, most Tarzana Treatment Center clients (69.6%) began or maintained one of these activities.

	Constructive Activities					
	Percentage of clients who maintained or began the activity					
Tarzana Treatment Center	Assessment 1 vs. 5					
Employment	47.8% (N=23)					
Volunteer	26.0% (N=23)					
School	13.0% (N=23)					
Any Activity	69.6% (N=23)					

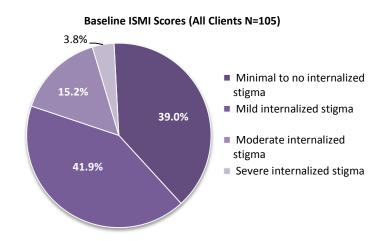
### Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, few Tarzana Treatment Center clients (1.9%) had been homeless during previous six months; as a result homelessness did not significantly decrease from baseline to 12 months. From baseline to twelve months 98.1% of clients' maintained housing and 1.9% were homeless for fewer days.

### Stigma

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was no significant change in internalized stigma ratings from baseline to twelve months after enrollment for Tarzana Treatment Center clients



with matched assessments. However, some (33.3%) clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) or maintained minimal to no internalized stigma.

### **CLIENT SATISFACTION**

At the six month assessment, and during subsequent six months follow-up assessments, clients were randomly selected to complete either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at the semiannual follow-up assessment.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. At six months, 75.0% (N=12) of Tarzana Treatment Center clients had high overall satisfaction, indicated by a score of four or greater.

Client Satisfac	ction with Services
	Percent who increased or maintained high satisfaction
	Assessment 3
I was able to get all the services I thought I needed.	75.0% (N=12)
I felt comfortable asking questions about my	
treatment and medication.	75.0% (N=12)
Staff were sensitive to my cultural background (race,	
religion, language, etc.).	83.3% (N=12)
This program meets both my mental and physical	
health care needs.	75.0% (N=12)
My beliefs about health and well-being were	
considered as part of the services that I received	
here.	83.3% (N=12)

### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." At the six month assessment, 83.3% of Tarzana Treatment Center clients "Agreed" or "Strongly Agreed" that staff were sensitive to their cultural background, and had considered their beliefs about health and well-being as part of the services.

### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Many Tarzana Treatment Center clients (75.0%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Many Tarzana Treatment Center clients (75.0%) "Agreed" or "Strongly Agreed" with this item at the six month assessment.

### Integration

Integration was assessed using several methods; however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." At the six month assessment, 75.0% of Tarzana Treatment Center clients "Agreed" or "Strongly Agreed" with this item.

# **Integrated Clinic Model: Executive Summary**

The Integrated Clinic Model (ICM) was designed to improve access to quality services for individuals with cooccurring mental health and primary health diagnoses by integrating physical health, mental health, and substance abuse services in primary care or mental health sites. Increasing the quality of care was accomplished by creating an ICM multidisciplinary team of professionals and paraprofessionals to provide health, mental health and co-occurring substance abuse services that were coordinated by one entity with one point of administrative supervision and integrated administrative and operational policies and procedures. Desired client outcomes included improved physical and mental health outcomes, reduced medical and psychiatric ER visits, and decreased stigma.

The ICM model consists of six programs: Exodus Recovery Inc., the Bellflower and Lynwood sites of John Wesley Community Health Institute/South Central Health and Rehabilitation Center (JWCH/SCHARP), Los Angeles LGBT Center, Saban Community Clinic, and Special Service for Groups – HOPICS (SSG-HOPICS).

### **KEY EVALUATION FINDINGS**

This summary presents ICM data related to the Innovation goals and model specific goals. A more comprehensive presentation of all evaluation findings, including sample sized, is provided in the full report and Appendix C. The primary goals were to:

- 1. Successfully integrate physical health, mental health and substance abuse services
- 2. Improve the physical health status of clients participating in the program
- 3. Improve the mental health status of clients participating in the program
- 4. Reduce the impact of substance abuse on clients participating in the program
- 5. Demonstrate consumer and provider satisfaction with integrated services
- 6. Provide a cost effective model of care

### **Program enrollment and client characteristics**

A total of 1,408 individuals enrolled in an ICM program during the evaluation period. Saban Community Clinic and the LA LGBT Center had the highest enrollment rates of the ICM programs (21.2% and 20.4%, respectively). ICM clients were most likely to be between the ages of 48 and 59 (31.7%), followed by 37 and 47 (26.3%), and 26 to 36 (25.2%). ICM clients' gender was equally split between males (49.5%) and females (47.9%); 2.6% of ICM clients identified as transsexual or transgender. Clients were most likely to be Latino (45.0%) or White (27.6%).

#### **Overall Outcomes**

### Integration

The Integrated Treatment Tool (ITT) was used as a guiding framework to evaluate each program's level of integration across seven domains: Policies and Procedures, Peer Support, Care Coordination, Use of Data to Assess Effectiveness, Interdisciplinary Communication, Integrated Health Information/Technology, and Organization-wide Training. All domains consist of dichotomized statements that are either true or not true of each program. While all ICM programs demonstrated success in some domains, they varied in their degree of overall integration. Out of a possible 25 points, the lowest score was 5, the highest score was 25, and the median score was 18. Specifically, Exodus Recovery, Inc. and Saban Community Clinic exceeded the median score, and were rated as having Significantly Above Average levels of integration based on their ITT scores. All of the ICM programs were rated as having Significantly Above Average or Above Average levels in Peer Support category compared to the other models.

#### **Mental Health**

For ICM clients overall, there was a significant decrease in Overall IMR scores and a significant increase in MORS scores from the baseline to the twelve month assessment and from the baseline to the eighteen month assessment. There were also significant decreases on the client-reported mental health measures during the same time periods: the Mental Health subscale of the PROMIS Global Health scale, and the CHOIS Psychosis, CHOIS Memory/Cognitive Impairment and CHOIS Strengths subscales. Each of these results indicates improvement in mental health status after enrollment in INN services for ISM clients.

	IMR Overall					MORS			PROMIS Mental Health Subscale			
Program	MID	Change	MID 1 vs. 7	Change 1 vs. 7	MID 1 vs. 5	Change	MID 1 vs. 7	Change 1 vs. 7	MID	Change	MID	Change
Program	1 vs. 5	1 vs. 5	1 VS. /	1 VS. /	1 VS. 5	1 vs. 5	1 VS. /		1 vs. 5	1 vs. 5	1 vs. 7	1 vs. 7
Exodus Recovery	78.3%	<b>↓</b>	80.0%	$\downarrow$	69.7%	<b>1</b>	69.1%	<b>1</b>	53.1%	<b>↓</b>	63.6%	$\rightarrow$
JWCH/SCHARP-												
Bellflower	83.3%	$\downarrow$	85.7%	lacksquare	77.1%	<b>^</b>	75.0%	<b>^</b>	31.7%	<b>V</b>	46.4%	$\downarrow$
JWCH/SCHARP-												
Lynwood	100%	$\downarrow$	100%	$\mathbf{\downarrow}$	35.0%	<b>^</b>	84.6%	<b>^</b>	70.3%	$\downarrow$	75.0%	$\downarrow$
LA LGBT Center	65.8%	$\downarrow$	77.8%	$\downarrow$	50.0%	$\rightarrow$	100%	<b>1</b>	51.2%	$\downarrow$	57.1%	<b>4</b>
Saban Clinic	84.4%	$\downarrow$	63.6%	$\downarrow$	76.7%	<b>1</b>	60.0%	<b>1</b>	40.9%	$\rightarrow$	41.7%	$\rightarrow$
SSG-HOPICS	60.0%	$\rightarrow$	-	-	69.2%	<b>1</b>	100%	<b>1</b>	33.3%	$\rightarrow$	-	-
ICM Model Overall	79.4%	$\downarrow$	81.8%	$\downarrow$	67.3%	<b>1</b>	73.8%	<b>1</b>	49.4%	$\downarrow$	57.8%	<b>\</b>

Notes: Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

Please note when comparing outcomes that the matched sample size for each measure varies between programs. Dashed lines (-) indicate that the program did not have a large enough matched sample (N<3) to analyze change in score. Refer to the data appendix for sample size information.

### **Physical Health**

There was a significant decrease in PROMIS Global Health Physical Health subscale scores for ICM clients from the baseline to the twelve month assessment. There was no significant change in overall physical health from baseline to eighteen months; however, 36.3% of ICM clients had clinically meaningful improvement in physical health scores during this time period.

There were also significant improvements in blood pressure and diabetes risk for ICM clients. When compared to baseline, blood pressure and diabetes risk were significantly lower at the twelve month assessment, with more clients falling into the normal categories. Hypertension risk also decreased significantly at the eighteen month assessment compared to baseline. However, there was a significant increase in the percentage of clients at risk for diabetes from baseline to eighteen months. There were no significant changes in body mass index from baseline to twelve or eighteen months for ICM clients.

	PROMIS Physical Health Subscale				Blood Pressure				Diabetes			
	MID	Change	MID	Change	MID	Change	MID	Change	MID	Change	MID	Change
Program	1 vs. 5	1 vs. 5	1 vs. 7	1 vs. 7	1 vs. 5	1 vs. 5	1 vs. 7	1 vs. 7	1 vs. 5	1 vs. 5	1 vs. 7	1 vs. 7
Exodus Recovery	43.8%	<b>4</b>	41.7%	$\rightarrow$	58.3%	<b>4</b>	57.6%	<b>4</b>	40.0%	$\rightarrow$	22.3%	$\rightarrow$
JWCH/SCHARP-												
Bellflower	24.4%	$\rightarrow$	42.9%	$\rightarrow$	34.5%	$\rightarrow$	31.2%	$\rightarrow$	43.8%	$\rightarrow$	0.0%	$\rightarrow$
JWCH/SCHARP-												
Lynwood	56.8%	lack lack	41.7%	<b>\</b>	73.5%	lack lack	71.4%	$\rightarrow$	26.3%	$\rightarrow$	9.5%	<b>1</b>
LA LGBT Center	46.5%	$\downarrow$	21.4%	$\rightarrow$	33.3%	$\rightarrow$	0.0%	<b>1</b>	-	-	-	-
Saban Clinic	27.3%	$\rightarrow$	16.7%	$\rightarrow$	53.9%	$\rightarrow$	57.5%	$\downarrow$	80.4%	$\downarrow$	82.6%	$\rightarrow$
SSG-HOPICS	0.0%	$\rightarrow$	-	-	27.2%	$\rightarrow$	-	-	57.9%	$\rightarrow$	-	-
ICM Model Overall	39.9%	<b>+</b>	36.3%	→	51.9%	<b>→</b>	54.7%	<b>→</b>	55.7%	<b>→</b>	37.1%	<b>1</b>

Notes: MID is the percentage of clients who made clinically meaningful improvement or maintained healthy blood pressure or diabetes risk.

Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

Please note when comparing outcomes that the matched sample size for each measure varies between programs. Dashed lines (-) indicate that the program did not have a large enough matched sample (N<3) to analyze change in score. Refer to the data appendix for sample size information.

#### Substance Use

The majority of ICM clients reported that they had not consumed alcohol (59.1%) or used drugs (85.6%) at the baseline assessment. Half of ICM clients reported that they maintained no alcohol use from baseline to twelve months (50.9%) and from baseline to eighteen months (51.2%) and most clients reported that they had not used illegal drugs during the same time periods (80.5% and 90.7%, respectively). Compared to baseline, there was no significant change in alcohol consumption or drug use twelve or eighteen months after enrollment for ICM clients. Based on self-report, 19.9% of clients reduced their alcohol use from baseline to twelve months and 23.3% reduced their use from baseline to eighteen months. Based on self-report, 10.3% of clients reduced their drug use from baseline to twelve months, and 3.5% reduced their use from baseline to eighteen months after enrollment.

During this period, clinicians reported significant improvement in IMR Substance ratings, suggesting that clients experienced less impairment in functioning due to substance use. There was no significant change in PROMIS-Derived Substance Use scores twelve or eighteen months after enrollment, when compared to ratings at baseline.

		IMR Substance Use			Clier	nt Reporte	ed Alcoho	ol Use	Client Reported Drug Use			
	MID	Change	MID	Change	MID	Change	MID	Change	MID	Change	MID	Change
Program	1 vs. 5	1 vs. 5	1 vs. 7	1 vs. 7	1 vs. 5	1 vs. 5	1 vs. 7	1 vs. 7	1 vs. 5	1 vs. 5	1 vs. 7	1 vs. 7
Exodus Recovery	33.3%	<b>V</b>	37.5%	<b>4</b>	71.9%	$\rightarrow$	72.8%	$\rightarrow$	83.9%	$\rightarrow$	90.0%	$\rightarrow$
JWCH/SCHARP-												
Bellflower	27.8%	$\downarrow$	30.0%	$\rightarrow$	70.3%	$\rightarrow$	83.4%	$\rightarrow$	90.0%	$\rightarrow$	92.6%	$\rightarrow$
JWCH/SCHARP-												
Lynwood	9.1%	$\rightarrow$	13.3%	$\rightarrow$	97.3%	$\rightarrow$	95.8%	$\rightarrow$	100%	$\rightarrow$	100%	$\rightarrow$
LA LGBT Center	17.2%	$\rightarrow$	37.5%	$\downarrow$	57.1%	$\downarrow$	50.0%	$\rightarrow$	90.7%	$\downarrow$	92.3	$\rightarrow$
Saban Clinic	15.6%	$\rightarrow$	0.0%	$\rightarrow$	57.1%	$\rightarrow$	41.7%	$\rightarrow$	90.5%	$\rightarrow$	91.6%	$\rightarrow$
SSG-HOPICS	0.0%	$\rightarrow$	-	-	-	-	-	-	-	-	-	-
ICM Model Overall	25.3%	<b>T</b>	29.7%	<b>4</b>	70.8%	$\rightarrow$	74.5%	$\rightarrow$	90.8%	$\rightarrow$	94.2%	$\rightarrow$

Notes: MID is the percentage of clients who made clinically meaningful improvement or maintained no substance use.

Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

Please note when comparing outcomes that the matched sample size for each measure varies between programs. Dashed lines (-) indicate that the program did not have a large enough matched sample (N<3) to analyze change in score. Refer to the data appendix for sample size information.

### Consumer and Provider Satisfaction with Integrated Services

Overall, staff respondents from each program were highly satisfied with INN services. A majority of staff from the ICM model were satisfied with their program's ability to address the mental health and/or psychosocial needs of clients. Staff from each program were highly satisfied with the integration of services, and all of the respondents felt that integrated mental and physical health services were beneficial for their clients. All of the respondents from Exodus Recovery, Inc. were satisfied with their program's ability to address each of the health needs of their clients (mental and physical health and substance use). Respondents from SSG-HOPICS were the least satisfied with their program's ability to address the physical health needs of clients. Between programs, there was a lot of variation in staff's level of confidence with their ability to address the physical health and substance use issues of clients. There was also variation in satisfaction with communication between partnering agencies.

Five programs had a sufficient matched sample to evaluate changes in client satisfaction over time. Clients from Exodus Recovery, Inc., JWCH/SCHARP (Bellflower and Lynwood), Los Angeles LGBT Center and Saban Community Clinic reported that they were highly satisfied with INN services. Overall satisfaction was the greatest for Exodus Recovery, Inc. and JWCH/SCHARP – Lynwood at the twelve month assessment. At the eighteen month assessment, overall satisfaction was greatest at Los Angeles LGBT Center. At least 90.0% of clients at Exodus Recovery, Inc., JWCH/SCHARP (Bellflower and Lynwood), and Saban Community Clinic were highly satisfied with the integration of services and agreed that they were empowered to participate in developing their treatment plan at the twelve month assessment. From six to eighteen months, 100% of clients at Exodus Recovery, Inc. and JWCH/SCHARP-Bellflower increased or maintained high satisfaction with the integration of the program.

### **Model Specific Findings**

In addition to addressing the overall goals of the Innovation project, the ICM model had the unique goals of decreasing homelessness, reducing psychiatric emergency room visits, and decreasing the stigma associated with seeking and receiving the services.

#### Homelessness

Several ICM programs were successful at decreasing the number of days clients spent homeless or helping clients maintain housing after enrollment in INN services. At baseline, almost half of clients at Exodus Recovery, Inc. and 20.1% of clients at Los Angeles LGBT Center had been homeless during the previous six months. Clients in these programs had a significant reduction in homelessness twelve months after enrollment compared to baseline. Less than 11% of ICM clients at JWCH/SCHARP (Bellflower and Lynwood) and Saban Community Clinic were homeless at baseline; as a result, homelessness did not significantly decrease from baseline to twelve or eighteen months for these programs. However, the majority of clients in these three programs maintained their housing from baseline to the twelve month assessment (ranging from 89.9% at Saban Community Clinic to 100% of clients at JWCH/SCHARP-Lynwood). From baseline to eighteen months, there were no significant changes in homelessness for any ICM program; however, 90.6% of clients at Saban Community Clinic and 100% of clients at JWCH/SCHARP (Bellflower and Lynwood), and Los Angeles LGBT Center maintained housing. While 25% of clients at SSG-HOPICS were homeless when they enrolled in the program, there was not enough matched sample data to evaluate a change in homelessness over time.

#### Service Use

Several ICM programs were successful in reducing emergency room visits. Exodus Recovery, Inc. was the only program to report a significant reduction in psychiatric hospitalizations from the baseline to the eighteen month assessment; however, few clients at each program had been hospitalized at the baseline. Most clients in an ICM program maintained no psychiatric hospitalizations from baseline to twelve or eighteen months after INN enrollment.

#### Social Support

Two items from the IMR were used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)."

From baseline to twelve months, clients at JWCH/SCHARP (Bellflower and Lynwood) and Los Angeles LGBT Center were significantly more likely to have family or friends involved in their treatment. Clients at JWCH/SCHARP Bellflower and Lynwood were also significantly more likely to involve family and friends in their treatment at eighteen months when compared to baseline. However, clients at Exodus Recovery, Inc. reported that they were less likely to have friends and family involved in their treatment twelve months and eighteen months after enrollment. However, willingness to involve family and friends in treatment may depend on the client's cultural background. Clients in the majority of ICM programs had significantly more frequent contact with friends or other people outside of their family twelve months after enrollment in INN services when compared to baseline. Clients at many of these programs continued to have more frequent contact with friends eighteen months after enrollment. This suggests that ICM programs were successful at increasing clients' social network within their community.

	Е	Emergency Room Visits			Family	Family Involvement in Treatment			Contact with people outside family			
	MID	Change	MID	Change	MID	Change	MID	Change	MID	Change	MID	Change
Program	1 vs. 5	1 vs. 5	1 vs. 7	1 vs. 7	1 vs. 5	1 vs. 5	1 vs. 7	1 vs. 7	1 vs. 5	1 vs. 5	1 vs. 7	1 vs. 7
<b>Exodus Recovery</b>	67.7%	<b>4</b>	72.8%	$\rightarrow$	23.9%	<b>1</b>	18.0%	<b>1</b>	60.2%	lacksquare	55.7%	<b>4</b>
JWCH/SCHARP-												
Bellflower	75.0%	lacksquare	84.6%	lacksquare	58.3%	lacksquare	66.7%	lacksquare	69.4%	lacksquare	66.7%	<b>V</b>
JWCH/SCHARP-												
Lynwood	82.8%	$\rightarrow$	68.1%	$\rightarrow$	77.3%	lacksquare	71.4%	lacksquare	72.7%	lacksquare	92.9%	lacksquare
LA LGBT Center	72.1%	$\rightarrow$	78.6%	$\rightarrow$	38.9%	<b>V</b>	42.9%	$\rightarrow$	58.3%	<b>V</b>	57.1%	$\rightarrow$
Saban Clinic	73.7%	$\rightarrow$	90.9%	<b>\</b>	45.2%	$\rightarrow$	27.3%	$\rightarrow$	45.2%	<b>\</b>	54.5%	<b>\</b>
SSG-HOPICS	66.6%	$\rightarrow$	-	-	40.0%	$\rightarrow$	-	-	20.0%	$\rightarrow$	-	-

Notes: MID is the percentage of clients who made clinically meaningful improvement or maintained no emergency room visits or high levels of involvement of family and friends.

Green arrows indicate a statistically significant reduction in impairment or improvement signified by the outcome measure. Red arrows indicate a significant increase in impairment. Black horizontal arrows indicate no significant change on the outcome measure.

Please note when comparing outcomes that the matched sample size for each measure varies between programs. Dashed lines (-) indicate that the program did not have a large enough matched sample (N<3) to analyze change in score. Refer to the data appendix for sample size information.

### CONCLUSIONS

Overall, ICM clients showed improved physical and mental health, reduced substance use, and improved quality of life. While ICM programs demonstrated varying levels of integration, all programs were observed to have a patientcentered approach, which was one of the key goals of the model. Additionally, all of the ICM programs were rated as having Significantly Above Average or Above Average levels of peer support based on their ITT scores. The model was also successful in achieving model-specific goals, including a significant decrease in emergency room visits and a significant increase in social support among ICM clients.

# **Integrated Clinic Model (ICM)**

### **ICM INTRODUCTION**

The Integrated Clinic Model (ICM) was designed to improve access to quality culturally competent services for individuals with physical health, mental health and co-occurring substance use diagnoses by integrating care within both mental health and primary care provider sites.

Increasing the quality of care was accomplished by having an ICM multidisciplinary team of professionals and paraprofessionals provide health, mental health and co-occurring substance use disorder services that are coordinated by one entity with one point of administrative supervision and integrated administrative and operational policies and procedures. One of the goals was to create an integrated health record/chart with the expectation of significantly reducing fragmentation of care planning, delivery, and monitoring. The integration of physical health and mental health services was designed to provide more holistic and client-centered care to yield the best results and be the most acceptable and effective approach to those being served.

Services provided by ICM programs include: recovery oriented assessments, mental health treatment services, cooccurring substance abuse services, peer counseling and self-help, primary care services, homeless/housing services, care management, wellness activities and outreach. Client goals for the ICM service model included: improved health and mental health outcomes, client and provider satisfaction, increased efficiency and better use of limited public resources, decreased frequency of emergency services and hospitalizations, and decreased stigma.

The ICM Model consists of six programs: Exodus Recovery Inc., the Bellflower and Lynwood sites of John Wesley Community Health Institute/South Central Health and Rehabilitation Center, Los Angeles LGBT Center, Saban Community Clinic, and Special Service for Groups – HOPICS.

### **ICM WEIGHTED RUBRIC**

Several measures are included in the ICM model rubric that are not in the rubrics for the other models. Unique to the ICM rubric is the sub-domain of clients served relative to the original target goals, which includes financial status, UREP status, and diagnosis, which were obtained through DMH client approval records. Additionally, service use and incarcerations were included in the ICM rubric. These data elements capture key goals of the ICM programs. The weighting reflects the relative importance of each level, domain, and sub-domain, and was developed by the DMH Model Leads and Liaisons.

Level	Domain	Sub-domain		Weighting
Client Level	Quality of Care	Mental Health Outcomes		20%
60%	59%	Physical Health Outcomes		30%
		Substance Abuse Outcomes		15%
		Physical Health Labs (screening)		30%
		Cultural Competency		5%
			TOTAL:	100%
	Quality of Life	Incarcerations		21%
	34%	Emergency Services		31%
		Employment/Volunteer/School		11%
		Housing (How many housed)		15%
		Stigma		11%
		Social Support		11%
			TOTAL:	100%
	Client Satisfaction	Client Satisfaction		100%
	7%		TOTAL:	100%
Program Level	Data Compliance	Data Compliance		100%
40%	10%		TOTAL:	100%
	Access to Care	Clients served relative to target		50%
	25%	Client Flow		30%
		Clients received desired care		20%
			TOTAL:	100%
	Staffing	Staff Satisfaction		30%
	12%	Staff Development		25%
		Peer involvement		45%
			TOTAL:	100%
	Cost	Cost		100%
	24%		TOTAL:	100%
	Integration	Experience of Integration		25%
	17%	Service Integration		75%
			TOTAL:	100%
	Outreach & Engagement	Client Engagement		100%
	12%		TOTAL:	100%

### **ENROLLMENT AND DISCHARGE**

To date, a total of 1,408 clients have enrolled in ICM programs. Saban Community Clinic and the LA LGBT Center had the highest enrollment rates of the ICM programs. Across all ICM programs, enrollment tended to be highest between the 4<sup>th</sup> quarter of 2012 and the 1<sup>st</sup> quarter of 2013.

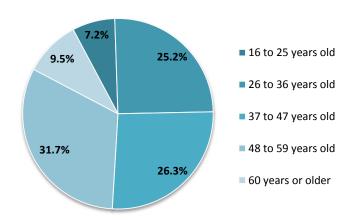
Enrollment by ICM Provider											
	2012			2013				2014		Total	
	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	Total
Exodus Recovery, Inc.	0	66	36	44	34	16	12	22	20	18	268
JWCH/SCHARP - Bellflower	0	2	11	77	27	16	15	1	18	10	177
JWCH/SCHARP - Lynwood	0	3	12	84	14	12	21	8	8	7	169
LA LGBT Center	1	8	62	37	61	34	35	26	7	16	287
SSG - HOPICS	0	9	28	43	38	23	9	21	20	18	209
Saban Community Clinic	4	26	29	58	57	36	12	25	33	18	298
Total	5	114	178	343	231	137	104	103	106	87	1,408

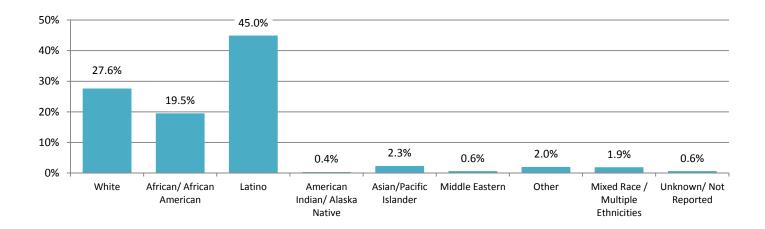
A total of 592 clients discharged across all ICM programs. Saban Community Clinic was the most likely to discharge clients with a discharge rate of 54.0%, followed by SSG-HOPICS, LA LGBT Center, and Exodus Recovery, Inc.

Discharge by ICM Provider									
		20	13	20	Total				
	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	Total		
Exodus Recovery, Inc.	33	6	15	3	43	23	123		
JWCH/SCHARP - Bellflower	0	3	4	4	3	24	38		
JWCH/SCHARP - Lynwood	0	5	6	2	11	12	36		
LA LGBT Center	3	14	19	16	29	53	134		
SSG - HOPICS	0	21	5	0	0	74	100		
Saban Community Clinic	0	26	75	23	19	18	161		
Total	36	75	124	48	105	204	592		

### **DEMOGRAPHICS**

ICM clients are most likely to be between the ages of 48 and 59 (31.7%), followed by 37 and 47 (26.3%), and 26 to 36 (25.2%). Current clients are most likely to be Latino (45.0%) or White (27.6%). ICM clients' gender was equally split between males (49.5%) and females (47.9%); 2.6% of all current ICM clients identified as transsexual or transgender.





### **MEASURES COMPLETION**

Completion rates for the baseline, twelve, and eighteen month assessments can be found in the table below. The baseline completion rate was generally higher across all types of measures than for subsequent measures. The completion rate was generally higher for the clinician measures compared to the client measures. Because there are many reasons why providers could not complete some assessments at scheduled time points, the completion goal is to have each measure completed for 80% of clients at each time point.

ICM Measures Completion									
	Client	Self-Assess	ment	Clinici	an Mental I	lealth	Physical Health Indicators		
	Baseline	12 month	18 month	Baseline	12 month	18 month	Baseline	12 month	18 month
Exodus Recovery, Inc.	70.9%	88.0%	80.6%	94.8%	90.8%	78.6%	93.7%	90.8%	78.6%
JWCH/SCHARP - Bellflower	72.9%	35.3%	45.1%	92.1%	72.2%	67.1%	81.9%	68.4%	64.6%
JWCH/SCHARP - Lynwood	75.1%	32.8%	46.1%	82.8%	50.8%	47.4%	94.7%	54.9%	59.2%
LA LGBT Center	62.0%	51.4%	34.6%	64.1%	46.3%	33.3%	51.9%	34.3%	29.6%
SSG - HOPICS	39.7%	23.8%	13.0%	40.7%	44.3%	24.1%	50.2%	25.4%	1.9%
Saban Community Clinic	40.6%	51.4%	44.0%	43.0%	53.3%	54.0%	78.9%	73.8%	80.0%

### ICM STAFFING AND INTEGRATION BY PROVIDER

### Integrated Treatment Tool (ITT)

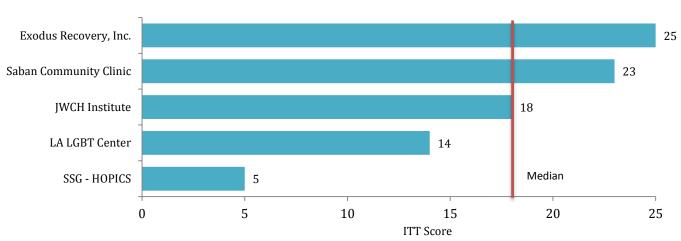
The evaluation team conducted initial site visits at all 24 INN programs in 2013 in an effort to understand what is being changed as programs integrate mental health, physical health, and substance use services, and how change is occurring – as well as facilitators and barriers to change. The evaluation team used the Integrated Treatment Tool (ITT) as a guiding framework and index of integration. Between September and October of 2014, follow up ITT phone interviews were conducted with each ICM program. Interview participants were ICM staff who could speak to both the clinical and administrative components of each program. The goal of the follow up interviews was to learn how programs had changed since the initial site visit and identify any continued barriers to integration or additional lessons learned. Please see the Integrated Treatment Tool Section for more information and the overall findings across models.

Close-ended questions during the phone interview were derived from the Integrated Treatment Tool as a guiding framework and index of integration. The following seven domains were assessed for ICM programs. Please see Appendix B for the specific anchor statements within each domain.

- 1) Policies and procedures
- 2) Peer support
- 3) Care coordination
- 4) Assessing effectiveness
- 5) Interdisciplinary communication
- 6) Integrated health information/technology
- 7) Organization-wide training

All domains consist of dichotomized statements that are either true or not true of each program. Out of a possible 25 points, the lowest score was 5, and the highest score was 25. The median was 18. Below is the breakdown of the overall ITT scores by program within the ICM model. One scores was calculated for the JWCH/SCHARP sites in Bellflower and Lynwood.

**ICM Model Score Distribution** 



# Staff Satisfaction

The Staff Satisfaction survey was administered electronically in August 2014. The survey asked staff to report on various aspects of their INN program, including service integration, comfort treating clients with various diagnoses, program capabilities, and training. Items on the survey make up two primary scales: Overall Satisfaction and Satisfaction with Integration. All staff within each agency or partnering agency who worked with INN clients were asked to complete the survey. Overall, 60 ICM staff members completed the survey.

### **Overall Satisfaction Scale**

The Overall Satisfaction scale includes six items that assess staff members' satisfaction with their personal ability and their program's ability to address the mental health, physical health, and substance use needs of clients. The proportion of staff who responded "Agree" or "Strongly Agree" to each of the items can be found in the table below. The responses from all providers are displayed below. Overall, respondents from each program were highly satisfied. All of the respondents from Exodus Recovery, Inc. were satisfied with their program's ability to address each of the health needs of their clients. The respondents from SSG-HOPICS were the least satisfied with their program's ability to address the physical health needs of clients. Respondents from LA LGBT Center were least satisfied with their program's ability to address the substance use issues of clients.

Overall Staff Satisfaction									
		% who Agree/Strongly Agree							
ICM Provider	ltem 1	ltem 2	Item 3	Item 4	Item 5	Item 6			
Exodus Recovery, Inc. (N=12)	91.7%	90.9%	91.7%	100.0%	100.0%	100.0%			
JWCH/SCHARP – Combined (N=11)	70.0%	55.5%	70.0%	81.8%	90.0%	81.8%			
LA LGBT Center (N=10)	87.5%	87.5%	50.0%	100.0%	90.0%	70.0%			
SSG – HOPICS (N=13)	90.9%	70.0%	71.5%	100.0%	66.7%	100.0%			
Saban Community Clinic (N=14)	100.0%	92.3%	88.9%	85.7%	92.9%	92.8%			

- 1. I am satisfied with my ability to address the mental health and/or psychosocial needs of my clients.
- 2. I am satisfied with my ability to address the physical health needs of my clients.
- 3. I am satisfied with my ability to address the substance use issues of my clients.
- 4. I am satisfied with my program's ability to address the mental health and/or psychosocial needs of clients.
- 5. I am satisfied with my program's ability to address the physical health needs of clients.
- 6. I am satisfied with my program's ability to address the substance use issues of clients.

### Integration Scale

The Integration scale includes five items that assess staff satisfaction with the integration of their program, including communication between providers, and service offerings. The proportion of staff who responded "Agree" or "Strongly Agree" to each of the items can be found in the table below. Overall, respondents from each program were highly satisfied. All of the respondents felt that integrated mental and physical health services were beneficial for their clients. Providers from Exodus Recovery, Inc. were the most satisfied with their program's integration.

Staff Satisfaction with Integration								
	% who Agree/Strongly Agree							
ICM Provider	Item 1	Item 2	Item 3	Item 4	Item 5			
Exodus Recovery, Inc. (N=12)	100.0%	100.0%	100.0%	100.0%	100.0%			
JWCH/SCHARP – Combined (N=11)	54.5%	80.0%	92.9%	100.0%	54.6%			
LA LGBT Center (N=10)	80.0%	71.4%	90.0%	100.0%	90.0%			
SSG – HOPICS (N=13)	58.3%	75.0%	100.0%	100.0%	84.6%			
Saban Community Clinic (N=14)	85.7%	78.6%	78.6%	100.0%	85.7%			

- 1. In my experience, I am generally satisfied with communication between physical health and mental health providers.
- 2. I am able to provide or arrange the kinds of services I want for my clients at this program.
- 3. My program is able to provide or arrange the kinds of services I want for my clients.
- 4. Having mental health services and physical health services integrated is helpful to clients in this program.
- 5. I am satisfied with how my program is being implemented.

### ICM COST-EFFECTIVENESS BY PROVIDER

INN service costs were the lowest for the ICM model. Changes in quality adjusted life years (QALYs) were similar across all models; as a result the ICM model was estimated to be the most cost effective. The cost analysis for ICM programs looked primarily at INN service costs, community outreach services (COS), and community support services (CSS). Non-INN service costs such as inpatient hospitalizations and ER visits were not a large cost for ICM clients. Of all ICM providers, Exodus Recovery, Inc. had the highest average INN services cost (\$5,842/client), SSG-HOPICS had the highest COS (\$400 per client enrolled), and LA LGBT Center had the highest CSS costs (\$2,018 per client enrolled). See Appendix A for a full breakdown of cost by provider. Within the ICM model, LA LGBT Center, JWCH/SCHARP -Lynwood, and Saban Community Clinic were the least expensive programs with average INN cost per client around \$5,000 over the first year. Factoring in client improvements in health using quality adjusted life years, the most cost effective programs were estimated to be LA LGBT Center and JWCH/SCHARP - Lynwood.

### ICM EVALUATION OUTCOMES

In order to evaluate these outcomes, clients completed the Integrated Self-Assessment within 30 days of enrollment, and follow-up assessments every three months. The Integrated Self-Assessment included the Patient Reported Outcomes Measurement System's (PROMIS) Global Health scale, the Creating Health Outcomes: Integrated Self-Assessment (CHOIS), the Physical Health and Behavior survey, and the PROMIS-Derived Substance Abuse scale. Additionally, in order to measure clinician perception of client recovery and client's current degree of recovery, clinicians completed the Illness Management and Recovery (IMR) scale as well as the Milestones of Recovery Scale (MORS) quarterly. To better assess physical health, clinicians completed the Physical Health Indicators Screener semiannually, which consists of indicators of health that should be collected in routine primary care such as BMI, blood pressure, and risk/presence of chronic conditions such as diabetes, cardiopulmonary disease, asthma, tuberculosis, emphysema, and sexually transmitted diseases.

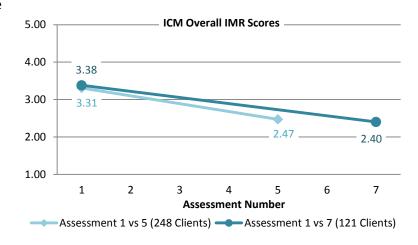
#### Mental Health Outcomes

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of ICM clients with clinically meaningful improvements on the IMR subscales, the MORS, the PROMIS Mental Health subscale, and the percentage of ICM clients who maintained "healthy" ratings or experienced clinically meaningful improvements on the CHOIS subscales.

#### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across all ICM clients with matched assessments, there was a significant decrease in Overall IMR scores from the baseline to the twelve month and eighteen month assessments. This indicates that, on average, INN clients made notable progress



towards their recovery. There was a clinically meaningful improvement in Overall IMR ratings for a majority of ICM clients twelve (79.4%) months and eighteen months (81.8%) after enrollment.

### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network.

There were significant increases in MORS scores from the baseline assessment to the twelve and the eighteen month assessments. Using matched samples, at baseline, ICM clients were most likely to be categorized in the poorly coping/engaged stage of recovery (46.0% and 42.1%). At the twelve month and eighteen month assessments, ICM

clients were most likely to be in the coping/rehabilitating stage of recovery (46.0%, 50.5% respectively). This indicates that overall, clinicians witnessed improvement in clients' recovery. There was a clinically meaningful improvement in client recovery for many ICM clients at the twelve month (67.3%) and eighteen month (73.8%) assessments.

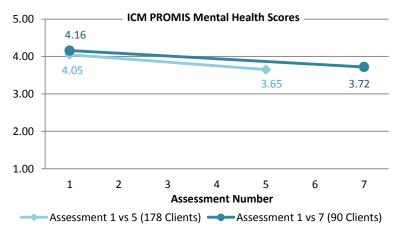
	ICM MORS Ratings									
Rating	Stage of Recovery	Assessment 1 vs. 5 (N=211) Assessment 1 vs. 7 (N=10								
1	Extreme Risk	0.0%	0.5%	0.0%	0.0%					
2	High Risk/Not Engaged	0.5%	0.5%	0.0%	0.0%					
3	High Risk/Engaged	18.0%	2.4%	19.6%	3.7%					
4	Poorly Coping/Not Engaged	12.3%	2.4%	15.9%	0.9%					
5	Poorly Coping/Engaged	46.0%	21.8%	42.1%	17.8%					
6	Coping/Rehabilitating	20.4%	46.0%	20.6%	50.5%					
7	Early Recovery	2.4%	21.3%	1.9%	17.8%					
8	Advanced Recovery	0.5%	5.2%	0.0%	9.3%					

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) - 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

There was a significant reduction in PROMIS Mental Health scores from baseline to twelve months and to eighteen months. This indicates that clients had fewer mental health symptoms. Compared to baseline, 49.4% of clients had a clinically meaningful improvement in their mental health twelve months after enrolling in INN services, and 57.8% of clients had a clinically meaningful improvement eighteen months after enrolling in INN services.

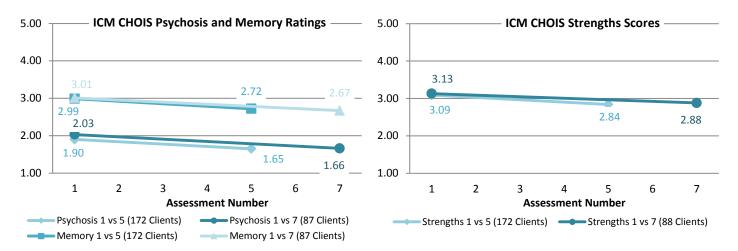


### Creating Healthy Outcomes: Integrated Self-Assessment

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/ Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

Across all ICM clients with matched assessments, there was a significant reduction in scores on each of the three CHOIS subscales – Psychosis, Memory/Cognitive Impairment, and Strengths – from the baseline to the twelve month and eighteen month assessments. This indicates that, on average, ICM clients had fewer negative symptoms and

improved resiliency after enrolling in services. Additionally, many clients had a clinically meaningful improvements or maintained healthy scores twelve months after enrollment (Psychosis: 76.8%, Memory/Cognitive Impairment: 39.5%, and Strengths: 33.7%) and eighteen months after enrollment (Psychosis: 78.1%, Memory/Cognitive Impairment: 41.3%, and Strengths: 44.3%).

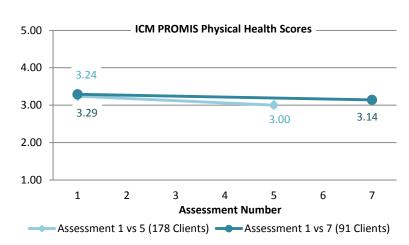


### **Physical Health Outcomes**

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings.

# PROMIS Global Health - Physical Health Subscale

There was a significant reduction in PROMIS Physical Health subscale scores from baseline to twelve months after enrollment, but not from baseline to eighteen months. This indicates that clients had fewer limitations due to their physical health after twelve months. Compared to the baseline, many clients had a clinically meaningful improvement in their physical health twelve months (39.9%), and eighteen months after enrolling in services (36.3%).



### Physical Health Indicators

Clinicians completed the Physical Health Indicators survey by recording the frequency and outcome of typical health screening procedures, including: height, weight, blood pressure, cholesterol, and chronic medical conditions.

#### **Health Screening**

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first eighteen months of their enrollment in Innovation services. Among ICM clients, the most common screening was for high blood pressure followed by BMI, with over 75% of all clients being screened at least once in eighteen months for each. Screening of clients for tuberculosis, asthma, and emphysema was also conducted at baseline only, and is not shown in the graph below. Screening rates for these conditions was much lower, as it was often only done for clients presenting symptoms.

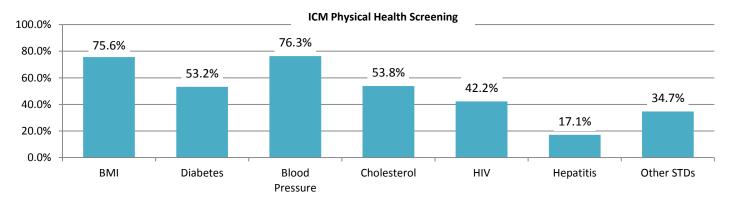


Chart provides the percentage of all ICM clients who have ever been screened for the above health conditions within 18 months since enrolling in Innovation services. All current and discharged Innovation clients are included in the calculation of percentages, N=1,408.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI from the baseline to either the twelve or the eighteen month assessment. Some clients maintained a normal BMI from baseline to twelve or eighteen months (17.3%, 15.2% respectively). Other clients improved their weight from baseline to twelve or eighteen months (5.4%, 7.3% respectively).

ICM Body Mass Index (BMI) Categorization										
Assessment #	Underweight	Normal Weight	Overweight	Obese						
Matched Sample Asse	Matched Sample Assessment 1 vs. 5 (N=312)									
1	1 1.0% 20.5% 34.3% 44.2%									
5	1.0%	20.2%	30.1%	48.7%						
Matched Sample Asse	essment 1 vs. 7 (N=	165)								
1 1.2% 18.2% 29.7% 50.9%										
7	1.8%	17.6%	31.5%	49.1%						

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There were significant reductions in blood pressure from baseline to twelve and eighteen months. Additionally, many clients maintained a normal blood pressure from baseline to twelve or eighteen months (21.1%, 18.2% respectively). Other clients reduced their blood pressure from baseline to twelve or eighteen months (30.8%, 36.5% respectively).

	ICM Blood Pressure Categorization									
Assessment #	Normal	Pre- Hypertension	Stage 1 Hypertension	Stage 2 Hypertension	Hypertensive Crisis					
Matched Sample	Matched Sample Assessment 1 vs. 5 (N=331)									
1	33.2%	39.6%	20.2%	5.4%	1.5%					
5	37.8%	45.0%	15.4%	1.8%	0.0%					
Matched Sample	Assessment 1 vs. 7 (	N=170)								
1	30.0%	39.4%	22.4%	5.9%	2.4%					
7	38.8%	41.8%	18.2%	1.2%	0.0%					

#### Diabetes

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was a significant improvement in diabetes markers from baseline to twelve months and a significant decline in the markers from baseline to eighteen months. Many clients maintained normal diabetes markers from baseline to twelve or eighteen months (33.6%, 25.7% respectively). Other clients improved their ratings from baseline to twelve or eighteen months (22.1%, 11.4% respectively).

	ICM Diabetes Categorization									
	Low Blood Sugar	Normal	High Normal	Pre-Diabetic	Diabetic					
Matched Sample	Matched Sample Assessment 1 vs. 5 (N=140)									
1	1.4%	30.0%	16.4%	20.0%	32.1%					
5	0.7%	36.4%	12.1%	19.3%	31.4%					
Matched Sample	Assessment 1 vs. 7	(N=70)								
1	0.0%	25.7%	12.9%	22.9%	38.6%					
7	1.4%	25.7%	7.1%	18.6%	47.1%					

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

Compared to baseline, there was a significant increase in risk for heart disease based on cholesterol level twelve months after enrollment, and a significant improvement from baseline to eighteen months. Many clients maintained optimal cholesterol from baseline to twelve or eighteen months (35.3%, 27.5% respectively). Other clients improved their ratings from baseline to twelve or eighteen months (11.5%, 23.2% respectively).

ICM Cholesterol Categorization									
	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk				
Matched Sample Assessment 1 vs. 5 (N=139)									
1	12.9%	33.8%	11.5%	39.6%	2.2%				
5	12.2%	33.1%	10.8%	41.0%	2.9%				
Matched Sample Assessment 1 vs. 7 (N=69)									
1	10.1%	36.2%	14.5%	37.7%	1.4%				
7	13.0%	33.3%	11.6%	40.6%	1.4%				

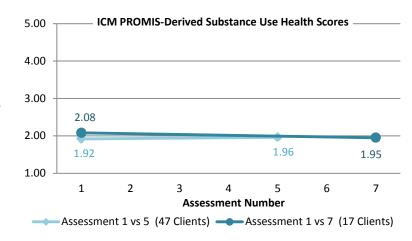
#### Substance Use Outcomes

Changes in clients' substance use were assessed using client self-report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

#### **PROMIS-Derived Substance Use**

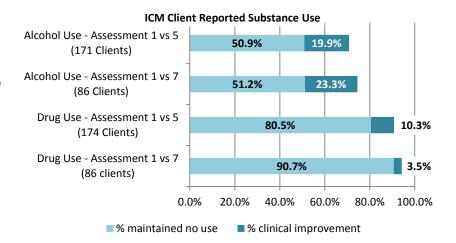
The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer negative consequences associated with substance use.

There was no significant change on the PROMIS-Derived Substance Use ratings from the baseline to the twelve month or eighteen month assessment. Many ICM clients had a clinically meaningful decrease in negative consequences associated with substance use after twelve months (21.3%) or eighteen months (17.6%).



### Client Reported Substance Use Items

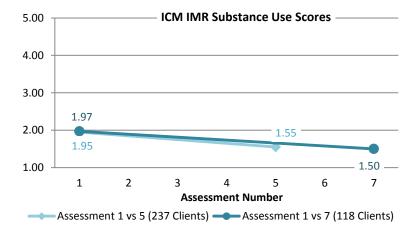
Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey. There were no significant changes in alcohol consumption or other drug use twelve or eighteen months after enrollment compared to baseline. However, many clients maintained no alcohol or other drug use from baseline to twelve months (50.9%, 80.5% respectively) and baseline to eighteen months (51.2%, 90.7% respectively). During the same time periods, other clients



reduced their alcohol use (19.9%, 23.3% respectively) or other drug use (10.3%, 3.5% respectively).

### Clinician Rated Substance Use: IMR Substance Use Subscale

There was a significant decrease in IMR Substance Use subscale ratings for ICM clients from baseline to twelve months and eighteen months after enrollment. Additionally, 25.3% had a clinically meaningful improvement from baseline to twelve months, and 29.7% from baseline to eighteen months. This indicates that clinicians observed that ICM clients experienced less functional impairment due to alcohol and/or other drug use.



# **Exodus Recovery, Inc.**

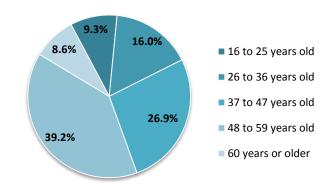
Exodus Recovery, Inc. has worked collaboratively with multiple west side hospitals since 1989 to provide mental health and chemical dependency treatment services. Exodus Recovery, Inc. developed and implemented inpatient psychiatric and chemical dependency treatment programs, intensive psychiatric outpatient clinics and a psychiatric medical group. Exodus Recovery, Inc. provides programs that are accessible, appropriate and appealing to the culturally and ethnically diverse populations they serve. The Exodus Recovery, Inc. mission is to bring the tools for the best possible quality of life to their clients. Their concept of total health care incorporates the physical, emotional, and spiritual needs of each client. The program strives to create an environment which promotes the dignity of all participating and to develop services maximizing clients' self-determination. Exodus Recovery, Inc. has been an LA County DMH contractor since 1996.

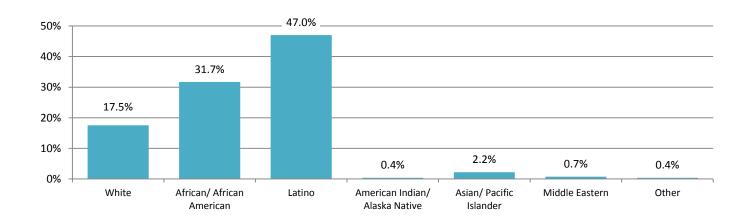
### **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, Exodus Recovery, Inc. has enrolled 268 clients. Of these, 123 (45.9%) have been discharged from the program for any reason. Of the discharged clients, 3 (2.4%) met their treatment goals and were transitioned to a lower level of care.

Exodus Recovery, Inc. clients are most likely to be between the ages of 48 and 59 (39.2%). Over half of clients are female (50.4%).

Exodus Recovery, Inc. clients are most likely to identify as Latino (47.0%), followed by African/African American (31.7%).





### **MENTAL HEALTH OUTCOMES**

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important

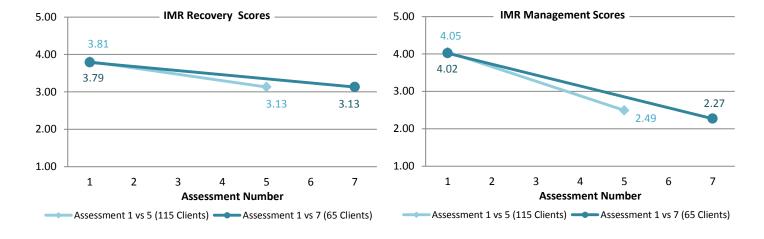
Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across Exodus Recovery, Inc. clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to the twelve and the eighteen month assessments. On the Recovery and Management scales respectively, many clients had a clinically meaningful improvement from baseline to twelve months (66.1% and 89.6%) and from baseline to eighteen months (70.8%, 90.8%). This indicates that, on average, Exodus Recovery, Inc. clients made notable progress towards their recovery, and improved their ability to manage their mental health.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months and from baseline to eighteen months, clients were significantly less likely to have family or friends involved in their treatment, but had significantly more frequent contact with friends. Some clients increased the level of involvement of their family and friends in their treatment from the baseline to the twelve month assessment (23.9%) and baseline to eighteen months (18.0%). Many clients also increased the amount of time they spend with people outside their family from baseline to twelve months (60.2%) and from baseline to eighteen months (55.7%).

### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8, respectively) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network. There was a significant increase in MORS scores from the baseline to the twelve and eighteen month assessments. Many clients had a clinically meaningful increase in MORS scores from baseline to twelve months (69.7%) or to eighteen months (69.1%). This indicates that overall, clinicians witnessed improvement in clients' recovery over eighteen months of services.

Milestones of Recovery (MORS) Ratings									
Rating	Stage of Recovery	Assessment 1 vs. 5 (99 Clients)		Assessment 1 vs.7 (55 Clients)					
1	Extreme Risk	0.0%	0.0%	0.0%	0.0%				
2	High Risk/Not Engaged	0.0%	0.0%	0.0%	0.0%				
3	High Risk/Engaged	10.1%	2.0%	12.7%	1.8%				
4	Poorly Coping/Not Engaged	15.2%	0.0%	20.0%	1.8%				
5	Poorly Coping/Engaged	44.4%	18.2%	34.5%	16.4%				
6	Coping/Rehabilitating	29.3%	59.6%	30.9%	60.0%				
7	Early Recovery	1.0%	20.2%	1.8%	16.4%				
8	Advanced Recovery	0.0%	0.0%	0.0%	3.6%				

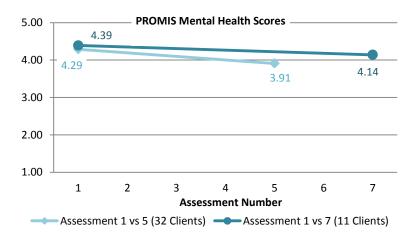
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Comparing the baseline to the twelve month assessment, 84.8% of clients were engaged based on their MORS scores at the baseline, and all of the clients were engaged at the twelve month assessment. Comparing the baseline to the eighteen month assessment, 80.0% of clients were engaged based on their MORS scores at the baseline, and 98.2% of clients were engaged at the eighteen month assessment.

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

### PROMIS Global Health - Mental Health Subscale

There was a significant reduction in PROMIS Mental Health subscale from baseline to twelve months, but not from baseline to eighteen months. This indicates that clients had fewer mental health symptoms after the first year of services. Many clients had a clinically meaningful improvement by twelve months (53.1%) or by eighteen months (63.6%).

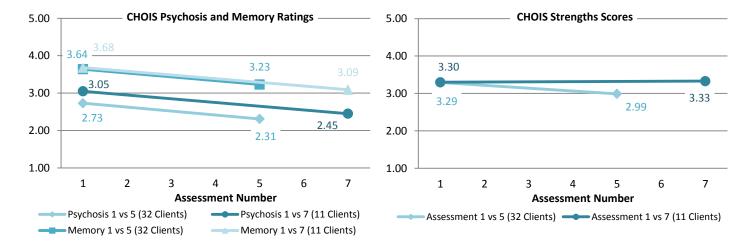


### **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/ Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

There was a significant reduction on the CHOIS Psychosis and the Memory/Cognitive Impairment scales from the baseline to the twelve month assessment, but not from the baseline to the eighteen month assessment. However, many clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months (65.7%, 34.4% respectively) and eighteen months (72.8%, 45.5% respectively) after enrollment. This indicates that on average clients had fewer symptoms of psychosis and less cognitive impairment.

There was no significant change in CHOIS Strengths subscale scores from baseline to twelve or eighteen months after enrollment. However, many clients maintained healthy scores or had a clinically meaningful improvement in their Strengths subscale scores twelve months (37.5%) and eighteen months (27.3%) after enrollment.

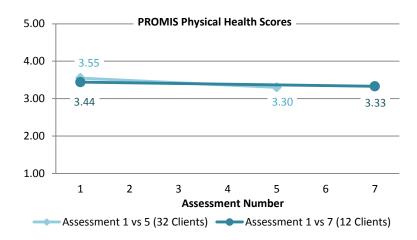


### PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# **PROMIS Global Health – Physical Health Scale**

There was a significant reduction in PROMIS Physical Health from baseline to twelve months, but not from baseline to eighteen months. Clinically meaningful improvement in physical health was seen for 43.8% of Exodus Recovery, Inc. clients from baseline to twelve months and for 41.7% from baseline to eighteen months. This indicates that clients experienced less physical impairment.



## **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey, which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions. On the Physical Health and Behaviors survey, clients were asked how frequently they exercise to assess a dimension of physical health not covered in other measures.

## Health Screening

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first eighteen months of their enrollment in INN services.

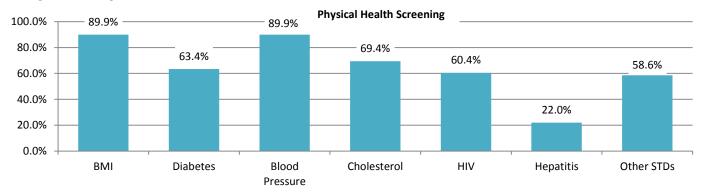


Chart provides the percentage of all Exodus Recovery, Inc. clients who have ever been screened for the above health conditions within 18 months since enrolling in Innovation services. All current and discharged Exodus Recovery, Inc. clients are included in the calculation of percentages, N=268.

## **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was a significant increase in BMI twelve months after enrollment and no change from baseline to eighteen months. From baseline to twelve and eighteen months, some clients had a clinically meaningful improvement in BMI (3.8%, 7.4% respectively). Others maintained a healthy BMI from baseline to twelve months (9.6%) or eighteen months (7.4%). While weight gain is not an intended or desired outcome, the increase in BMI may be an indication that clients are receiving new medications or taking their existing medications more consistently, as many medications (especially antipsychotics) are known to cause weight gain.

Body Mass Index (BMI) Categorization							
Assessment #	Underweight	Normal Weight	Overweight	Obese			
Matched Sample Assessment 1 vs. 5 (104 Clients)							
1	0.0%	12.5%	36.5%	51.0%			
5	0.0%	10.6%	33.7%	55.8%			
Matched Sample Asse	Matched Sample Assessment 1 vs. 7 (54 Clients)						
1	0.0%	7.4%	40.7%	51.9%			
7	0.0%	7.4%	42.6%	50.0%			

### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was a significant reduction in risk for hypertension based on blood pressure from baseline to twelve and eighteen months after enrollment. Some clients had a clinically meaningful reduction in blood pressure after twelve (43.5%) or eighteen months (50.8%). Other clients maintained a healthy blood pressure from baseline to twelve (14.8%) or eighteen months (6.8%).

Blood Pressure Categorization							
Assessment #	Normal	Pre- Hypertension	Stage 1 Hypertension	Stage 2 Hypertension	Hypertensive Crisis		
Matched Sample	Matched Sample Assessment 1 vs. 5 (108 Clients)						
1	24.1%	40.7%	23.1%	9.3%	2.8%		
5	36.1%	50.9%	12.0%	0.9%	0.0%		
Matched Sample	Matched Sample Assessment 1 vs.7 (59 Clients)						
1	13.6%	49.2%	23.7%	10.2%	3.4%		
7	35.6%	49.2%	15.3%	0.0%	0.0%		

### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no significant change in diabetes risk from the baseline to the twelve or eighteen month assessment. However, some clients had a clinically meaningful reduction in diabetes risk after twelve (25.7%) or eighteen months (16.7%). Other clients maintained healthy A1C and glucose levels from baseline to twelve (14.3%) or eighteen months (5.6%).

Diabetes Categorization						
	Low Blood Sugar	Normal	High Normal	Pre-Diabetic	Diabetic	
Matched Sample	Assessment 1 vs. 5	(35 Clients)				
1	2.9%	14.3%	8.6%	11.4%	62.9%	
5	0.0%	22.9%	2.9%	20.0%	54.3%	
Matched Sample	Matched Sample Assessment 1 vs. 7 (18 Clients)					
1	0.0%	11.1%	16.7%	22.2%	50.0%	
7	0.0%	11.1%	0.0%	33.3%	55.6%	

### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve or eighteen month assessments. Some clients had a clinically meaningful reduction in heart disease risk after twelve (8.3%) or eighteen months (21.7%). Other clients maintained a healthy cholesterol levels from baseline to twelve (27.1%) or eighteen months (30.4%).

Cholesterol Categorization						
	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk	
Matched Sample	Assessment 1 vs. 5	(48 Clients)				
1	8.3%	31.3%	10.4%	50.0%	0.0%	
5	4.2%	31.3%	10.4%	50.0%	4.2%	
Matched Sample	Matched Sample Assessment 1 vs. 7 (23 Clients)					
1	8.7%	47.8%	13.0%	30.4%	0.0%	
7	4.3%	47.8%	8.7%	39.1%	0.0%	

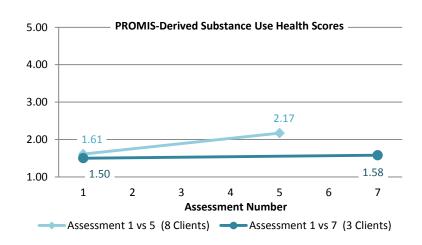
## SUBSTANCE USE

Changes in clients' substance use were assessed using client report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

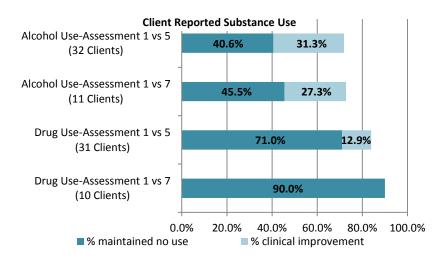


There was no significant change on the PROMIS-Derived Substance Use ratings from the baseline to the twelve or eighteen month assessments. Twelve months after enrollment, 25.0% of Exodus Recovery, Inc. clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or drug use, and 37.5% maintained a healthy score.

## **Client Reported Substance Use Items**

Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey.

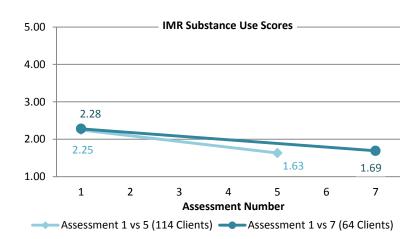
There were no significant changes in alcohol consumption or other drug use among Exodus Recovery, Inc. clients from the baseline to the twelve or eighteen month assessments. Some clients had a clinically meaningful reduction in alcohol use from baseline to twelve (31.3%) or eighteen months (27.3%). Other clients maintained no alcohol use from baseline to twelve (40.6%) or eighteen months (45.5%). Some clients had a clinically



meaningful reduction in substance use from baseline to twelve (12.9%), but none at eighteen months. Most clients maintained no substance use from baseline to twelve (71.0%) or eighteen months (90.0%).

# **Clinician Reported Substance** Use: IMR Substance Use Subscale

Exodus Recovery, Inc. clients with matched assessments had a significant decrease in IMR Substance Use scores from baseline to twelve and eighteen months. From baseline to twelve and eighteen months, many clients had a clinically meaningful reduction in substance use scores (33.3%, 37.5% respectively). This indicates that, on average, drugs and other alcohol were less likely to impact the lives of clients.



## **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on incarcerations, client and clinician report of emergency services, constructive activities such as employment, volunteer work, enrollment in school, as well as status of housing, and mental health stigma. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: no service use, no mental health stigma, or current employment.

### **Incarcerations**

There were no significant changes in incarcerations from baseline to twelve or eighteen months. A few clients had a clinically meaningful reduction in incarcerations from baseline to twelve months (6.5%) or eighteen months (20.0%). During the same time periods, 87.1% and 70.0% maintained no incarcerations, respectively.

	Client Reported Incarcerations					
	During the past 6	months, how many	times were you se	nt to jail or prison?		
	None	1-3 times	4-6 times	7-10 times	More than 10 times	
Matched Sample	Assessment 1 vs. 5	(31 Clients)				
1	93.5%	6.5%	0.0%	0.0%	0.0%	
5	93.5%	6.5%	0.0%	0.0%	0.0%	
Matched Sample	Matched Sample Assessment 1 vs. 7 (10 Clients)					
1	80.0%	20.0%	0.0%	0.0%	0.0%	
7	90.0%	10.0%	0.0%	0.0%	0.0%	

## **Emergency Services**

## **Client Report**

There was a significant reduction in ER visits from baseline to twelve months, but not from baseline to eighteen months. Many clients had a clinically meaningful reduction in visits from baseline to twelve months (51.6%) or eighteen months (45.5%). During the same time periods, 16.1% and 27.3% maintained no ER visits, respectively.

Client Reported Emergency Service Use						
	During the past 6 m	onths, how many t	imes did you go to	an emergency roon	1?	
	None	1-3 times	4-6 times	7-10 times	More than 10 times	
Matched Sample	Assessment 1 vs. 5	(31 Clients)				
1	19.4%	54.8%	19.4%	3.2%	3.2%	
5	54.8%	35.5%	6.5%	3.2%	0.0%	
Matched Sample	Matched Sample Assessment 1 vs. 7 (11 Clients)					
1	27.3%	54.5%	9.1%	9.1%	0.0%	
7	63.6%	27.3%	9.1%	0.0%	0.0%	

## Clinician Report

Few Exodus Recovery, Inc. clients had been hospitalized at the baseline; there was no significant reduction in hospitalizations at twelve months, but there was a significant reduction from baseline to eighteen months. Some clients had a clinically meaningful reduction in hospitalizations from baseline to twelve months (12.3%) or eighteen months (15.4%). During the same time periods, 81.6% and 84.6% maintained no hospitalizations, respectively.

	Psychiatric Hospitalization					
When is	the last time s/he h	as been hospitalize	d for mental health	or substance abus	e reasons?	
	None in the past year	In the past 7-12 months	In the past 4-6 months	In the past 2-3 months	Within the last month	
Matched Sample	Assessment 1 vs. 5	(114 Clients)				
1	86.0%	4.4%	2.6%	2.6%	4.4%	
5	93.9%	1.8%	0.0%	0.9%	3.5%	
Matched Sample	Matched Sample Assessment 1 vs. 7 (65 Clients)					
1	84.6%	3.1%	3.1%	6.2%	3.1%	
7	98.5%	1.5%	0.0%	0.0%	0.0%	

### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve or eighteen months. From baseline to twelve months, 18.8% of clients began one of these activities and from baseline to eighteen months 9.1% began one of these activities. During the same time periods, 18.8% and 27.3% maintained these activities, respectively.

Constructive Activities					
	Percentage of clients who maintained or began the activit  Assessment 1 vs. 5  Assessment 1 vs. 7				
Employment	15.6% (N=32)	9.1% (N=11)			
Volunteer	16.1% (N=31)	18.2% (N=11)			
School	10.0% (N=31)	10.0% (N=10)			
Any Activity	37.6% (N=32)	36.4% (N=11)			

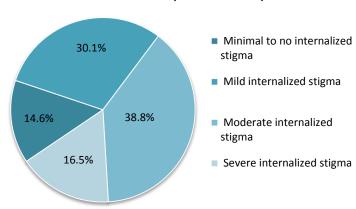
## Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, almost half of Exodus Recovery, Inc. clients (46.1%) had been homeless during previous six months; there was a significant reduction in homelessness from baseline to twelve and eighteen months. From baseline to twelve months 62.1% of clients maintained housing, and 31.0% were homeless for fewer days. From baseline to eighteen months 63.4% of clients maintained housing, and 28.2% were homeless for fewer days.

## Stigma

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

### Baseline ISMI Scores (All Clients N=103)



There were no significant changes in internalized stigma ratings from baseline to twelve months after enrollment. Compared to baseline, at the twelve month assessment, 55.6% of Exodus Recovery, Inc. clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings). There was not enough data to analyze change from baseline to eighteen months.

## **CLIENT SATISFACTION**

At the six month assessment, and at each subsequent semi-annual assessment, clients are randomly selected to take either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at each semiannual follow-up assessment. The Satisfaction with Services survey assesses client-perceived satisfaction with INN services.

### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. All Exodus Recovery, Inc. clients maintained high satisfaction (indicated by a response of "Agree" or "Strongly Agree") or increased their satisfaction from six to twelve months and most maintained high satisfaction or increased satisfaction from six to eighteen months (88.9%).

Client Satisfaction with Services				
	Percent of clients who inc	reased or maintained high		
	satisf	action		
	Assessment 3 vs. 5	Assessment 3 vs. 7		
I was able to get all the services I thought I				
needed.	84.6% (N=13)	80.0% (N=10)		
I felt comfortable asking questions about				
my treatment and medication.	91.7% (N=12)	100.0% (N=10)		
Staff were sensitive to my cultural				
background (race, religion, language, etc.).	92.3% (N=13)	100.0% (N=10)		
This program meets both my mental and				
physical health care needs.	92.3% (N=13)	100.0% (N=9)		
My beliefs about health and well-being				
were considered as part of the services				
that I received here.	76.9% (N=13)	90.0% (N=10)		

## **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

## **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." Of clients with a matched sample at the six and twelve month assessments, 92.3% and 76.9% of clients increased or maintained high satisfaction, respectively. From six to eighteen months, 100% and 90.0% of clients increased or maintained high satisfaction, respectively.

## **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Of clients with a matched sample at the six and twelve month assessments, 91.7% of clients increased or maintained high satisfaction. From six to eighteen months, 100% of clients increased or maintained high satisfaction.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Of clients with a matched sample at the six and twelve month assessments, 84.6% of clients increased or maintained high satisfaction. From six to eighteen months, 80.0% of clients increased or maintained high satisfaction.

## Integration

Integration was assessed using several methods, however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." Of clients with a matched sample at the six and twelve month assessments, 92.3% of clients increased or maintained high satisfaction. From six to eighteen months, 100% of clients increased or maintained high satisfaction.

# JWCH/SCHARP - Bellflower

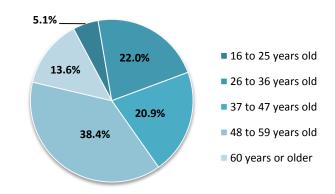
The mission of JWCH Institute - Bellflower is to improve the health status of underserved segments of the population of Los Angeles County through the direct provision of coordination of healthcare, health education, and research. JWCH developed and integrated medical and behavioral health teams in order to serve the most chronic and vulnerable homeless people in skid row. In addition to primary medical care, JWCH provides outpatient mental health counseling, residential services for women, and women with children, and outpatient substance abuse services for men and women. JWCH has clinics throughout Los Angeles County, with the Bellflower and Lynnwood clinics implementing the ICM program.

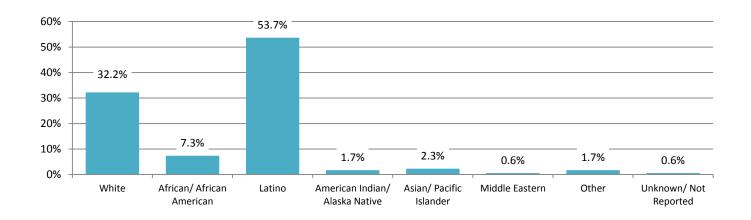
# **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, JWCH - Bellflower has enrolled 177 clients. Of these, 38 (21.5%) have been discharged from the program for any reason. Of the discharged clients, 1 (2.6%) met his/her treatment goals and were transitioned to a lower level of care.

JWCH - Bellflower clients are most likely to be between the ages of 48 to 59 (38.4%). Over half of clients are female (56.5%); one client identified as female to male transsexual.

JWCH - Bellflower clients are most likely to identify as Latino (53.7%), followed by White (32.2%).





## MENTAL HEALTH OUTCOMES

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome

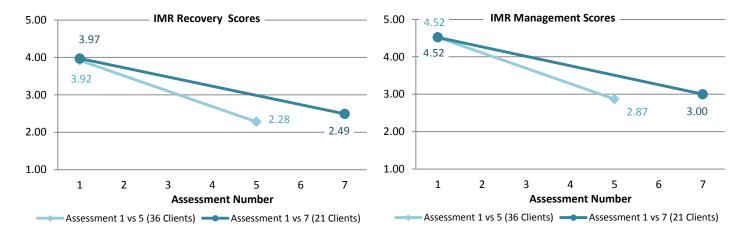
measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

## Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to the twelve and the eighteen month assessments. On the Recovery and Management scales respectively, many clients had a clinically meaningful improvement from baseline to twelve months (83.3% and 83.3%) and from baseline to eighteen months (71.4%, 76.2%). This indicates that, on average, JWCH - Bellflower clients made notable progress towards their recovery, and improved their ability to manage their mental health.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months and from baseline to eighteen months, clients were significantly more likely to have family or friends involved in their treatment, and had significantly more frequent contact with friends. Many clients increased the level of involvement of their family and friends in their treatment from the baseline to the twelve month assessment (58.3%) and baseline to eighteen months (66.7%). Some clients also increased the amount of time they spend with people outside their family from baseline to twelve months (69.4%) and from baseline to eighteen months (66.7%).

# Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's

level of risk, their level of engagement within the mental health system, and the quality of their social support network. There was a significant increase in MORS score from the baseline to the twelve and eighteen month assessments. Many clients had a clinically meaningful increase in MORS scores from baseline to twelve months (77.1%) or to eighteen months (75.0%). This indicates that overall, clinicians witnessed improvement in clients' recovery over eighteen months of services.

Milestones of Recovery (MORS) Ratings						
Rating	Stage of Recovery		Assessment 1 vs. 5 (35 Clients)		ent 1 vs.7 lients)	
1	Extreme Risk	0.0%	2.9%	0.0%	0.0%	
2	High Risk/Not Engaged	2.9%	0.0%	0.0%	0.0%	
3	High Risk/Engaged	37.1%	0.0%	30.0%	5.0%	
4	Poorly Coping/Not Engaged	8.6%	2.9%	10.0%	0.0%	
5	Poorly Coping/Engaged	45.7%	25.7%	45.0%	25.0%	
6	Coping/Rehabilitating	5.7%	40.0%	15.0%	45.0%	
7	Early Recovery	0.0%	11.4%	0.0%	10.0%	
8	Advanced Recovery	0.0%	17.1%	0.0%	15.0%	

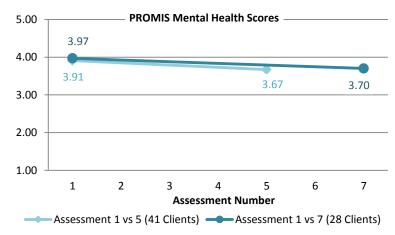
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Overall, at the baseline assessment, 88.6% of clients were engaged based on their MORS scores. Using a matched sample, 94.3% of clients were engaged at the twelve month assessment, and all clients were engaged at the eighteen month assessment.

# **Patient Reported Outcomes Measurement Information System (PROMIS)**

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then categorized into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

## PROMIS Global Health - Mental Health Subscale

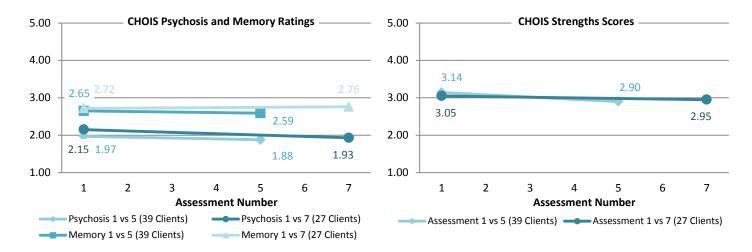
There was a significant reduction in PROMIS Mental Health scores from baseline to twelve and eighteen months after enrollment. This indicates that clients had fewer mental health symptoms after enrolling in the program. Additionally, many clients had a clinically meaningful improvement by twelve months (31.7%) or by eighteen months (46.4%).



# **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/ Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

There were no significant changes in average scores on the CHOIS Strengths, Psychosis or Memory/Cognitive Impairment scales from the baseline to the twelve or eighteen month assessment. However, many clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months (61.5%, 30.8% respectively) and eighteen months (62.9%, 29.6% respectively) after enrollment. Many clients maintained healthy scores or had a clinically meaningful improvement in their Strengths subscale scores twelve months (28.2%) and eighteen months (33.3%) after enrollment.



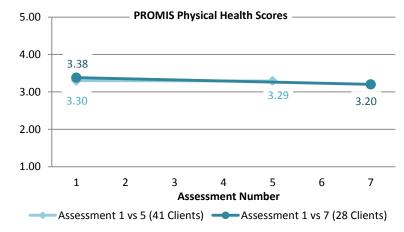
# PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections

below.

# PROMIS Global Health – Physical Health Scale

PROMIS Physical Health scores did not significantly change twelve or eighteen months after enrollment. Clinically meaningful improvement in physical health was seen for 24.4% of JWCH - Bellflower clients from baseline



to twelve months and for 42.9% from baseline to eighteen months.

## **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey, which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions. On the Physical Health and Behaviors survey, clients are asked how frequently they exercise to assess a dimension of physical health not covered in other measures.

## **Health Screening**

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first eighteen months of their enrollment in INN services.

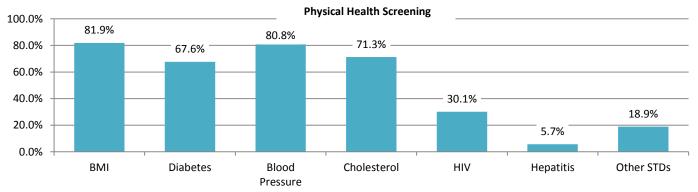


Chart provides the percentage of all JWCH Bellflower clients who have ever been screened for the above health conditions within 18 months since enrolling in Innovation services. All current and discharged JWCH Bellflower clients are included in the calculation of percentages, N=177.

## **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve and eighteen months after enrollment. However, from baseline to twelve and eighteen months some clients had a clinically meaningful improvement in BMI (7.3%, 3.0% respectively). Others maintained a healthy BMI from baseline to twelve months (14.5%) or eighteen months (15.2%).

Body Mass Index (BMI) Categorization							
Assessment #	Underweight	Normal Weight	Overweight	Obese			
Matched Sample Assessment 1 vs. 5 (55 Clients)							
1	1.8%	16.4%	29.1%	52.7%			
5	0.0%	20.0%	21.8%	58.2%			
Matched Sample Asse	Matched Sample Assessment 1 vs. 7 (33 Clients)						
1	0.0%	15.2%	18.2%	66.7%			
7	0.0%	15.2%	18.2%	66.7%			

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve or eighteen months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure after twelve (23.6%) or eighteen months (28.1%). Other clients maintained a healthy blood pressure from baseline to twelve (10.9%) or eighteen months (3.1%).

Blood Pressure Categorization						
Assessment #	Normal	Pre- Hypertension	Stage 1 Hypertension	Stage 2 Hypertension	Hypertensive Crisis	
Matched Sample	Assessment 1 vs. 5 (	55 Clients)				
1	30.9%	36.4%	23.6%	7.3%	1.8%	
5	21.8%	47.3%	27.3%	3.6%	0.0%	
Matched Sample	Matched Sample Assessment 1 vs.7 (32 Clients)					
1	28.1%	40.6%	21.9%	6.3%	3.1%	
7	18.8%	40.6%	40.6%	0.0%	0.0%	

### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no significant change in diabetes risk from the baseline to the twelve or eighteen month assessment. However, some clients had a clinically meaningful reduction in diabetes risk (12.5%) or maintained healthy A1C and glucose levels (31.3%) after twelve months. No clients had a meaningful reduction or maintained healthy levels from baseline to eighteen months.

Diabetes Categorization							
	Low Blood Sugar	Normal	High Normal	Pre-Diabetic	Diabetic		
Matched Sample	Matched Sample Assessment 1 vs. 5 (16 Clients)						
1	0.0%	31.3%	12.5%	12.5%	43.8%		
5	0.0%	31.3%	6.3%	18.8%	43.8%		
Matched Sample Assessment 1 vs. 7 (7 Clients)							
1	0.0%	0.0%	0.0%	28.6%	71.4%		
7	0.0%	0.0%	0.0%	14.3%	85.7%		

### **Cholesterol**

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve or eighteen month assessments. However, some clients had a clinically meaningful reduction in heart disease risk after twelve (29.4%) or eighteen months (40.0%). Other clients maintained a healthy cholesterol levels from baseline to twelve months (29.4%); no clients maintained healthy levels from baseline to eighteen months.

Cholesterol Categorization						
	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk	
Matched Sample	Assessment 1 vs. 5	(17 Clients)				
1	11.8%	35.3%	5.9%	47.1%	0.0%	
5	5.9%	47.1%	5.9%	41.2%	0.0%	
Matched Sample Assessment 1 vs. 7 (10 Clients)						
1	0.0%	30.0%	10.0%	60.0%	0.0%	
7	0.0%	20.0%	30.0%	50.0%	0.0%	

## **SUBSTANCE USE**

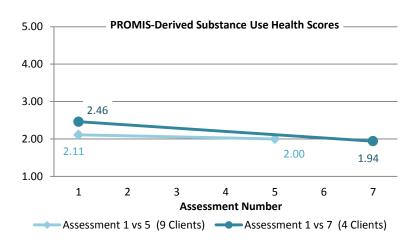
Changes in clients' substance use were assessed using client self-report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

There were no significant changes on the PROMIS-Derived Substance Use ratings from the baseline to the twelve or eighteen month assessments. Twelve months after enrollment, 11.1% of JWCH -Bellflower clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or drug use, and 55.6% maintained a

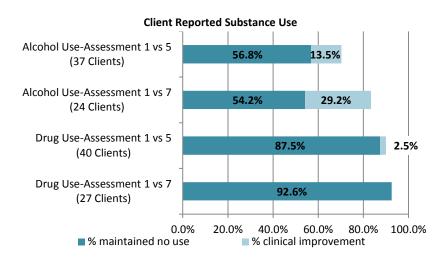


healthy score. Eighteen months after enrollment, 25.0% of JWCH - Bellflower clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or drug use, and 50.0% maintained a healthy score.

## **Client Reported Substance Use Items**

Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey.

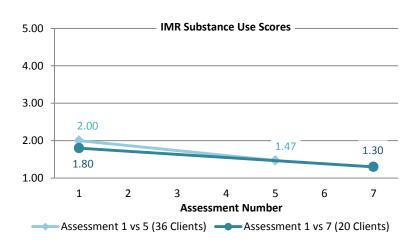
There were no significant changes in alcohol consumption or other substance use among JWCH - Bellflower clients from the baseline to the twelve or eighteen month assessments. Some clients had a clinically meaningful reduction in alcohol use from baseline to twelve (13.5%) or eighteen months (29.2%). Other clients maintained no alcohol use from baseline to twelve (56.8%) or eighteen months (54.2%). Some clients also had a clinically



meaningful reduction in substance use (2.5%) or maintained no substance use (87.5%) from baseline to twelve months. From baseline to eighteen months, 92.6% of clients maintained no use, but no clients had clinically meaningful improvement.

## **Clinician Reported Substance Use: IMR Substance Use Subscale**

JWCH - Bellflower clients with matched assessments had a significant decrease in IMR Substance Use scores from baseline to twelve months, but not from baseline to eighteen months. From baseline to twelve and eighteen months many clients had a clinically meaningful reduction in substance use scores (27.8%, 30.0% respectively). This indicates that, on average, alcohol and other drugs were less likely to impact the lives of clients.



## **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on incarcerations, client and clinician report of emergency services, constructive activities such as employment, volunteer work, enrollment in school, status of housing, and mental health stigma. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: no service use, no mental health stigma, or current employment.

### **Incarcerations**

There were no significant changes in incarcerations from baseline to twelve or eighteen months. While there were no clinically meaningful reductions in incarcerations from baseline to twelve months, 97.3% of clients maintained no incarcerations from baseline to twelve months. None of the clients with a matched baseline and eighteen month assessment had been incarcerated at either time point.

Client Reported Incarcerations						
	During the past 6	months, how many	times were you se	nt to jail or prison?		
	None	1-3 times	4-6 times	7-10 times	More than 10 times	
Matched Sample	Assessment 1 vs. 5	(37 Clients)				
1	100.0%	0.0%	0.0%	0.0%	0.0%	
5	97.3%	2.7%	0.0%	0.0%	0.0%	
Matched Sample Assessment 1 vs. 7 (26 Clients)						
1	100.0%	0.0%	0.0%	0.0%	0.0%	
7	100.0%	0.0%	0.0%	0.0%	0.0%	

## **Emergency Services**

## **Client Report**

There were significant reductions in ER visits from baseline to twelve and eighteen months. Some clients had a clinically meaningful reduction in visits from baseline to twelve months (32.5%) and eighteen months (30.8%). During the same time periods, 42.5% and 53.8% maintained no ER visits, respectively.

Client Reported Emergency Service Use						
	During the past 6 m	onths, how many t	imes did you go to a	an emergency room	1?	
	None	1-3 times	4-6 times	7-10 times	More than 10 times	
Matched Sample	Assessment 1 vs. 5	(40 Clients)				
1	57.5%	30.0%	7.5%	0.0%	5.0%	
5	72.5%	25.0%	0.0%	2.5%	0.0%	
Matched Sample Assessment 1 vs. 7 (26 Clients)						
1	61.5%	30.8%	7.7%	0.0%	0.0%	
7	84.6%	15.4%	0.0%	0.0%	0.0%	

## Clinician Report

There were no significant changes in hospitalizations at twelve or eighteen months compared to baseline. A few clients had a clinically meaningful reduction in hospitalizations from baseline to twelve months (5.9%) and eighteen months (9.5%). During the same time periods, 88.2% and 90.5% maintained no hospitalizations, respectively.

Psychiatric Hospitalization						
When is	the last time s/he h	as been hospitalize	d for mental health	or substance abus	e reasons?	
No hospitalizations In the past 7-12 In the past 4-6 In the past 2-3 Within the last in the past year months months months month						
Matched Sample	Assessment 1 vs. 5	(34 Clients)				
1	88.2%	2.9%	0.0%	5.9%	2.9%	
5	91.2%	5.9%	0.0%	0.0%	2.9%	
Matched Sample Assessment 1 vs. 7 (21 Clients)						
1	90.5%	0.0%	0.0%	4.8%	4.8%	
7	95.2%	0.0%	4.8%	0.0%	0.0%	

### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There was a significant increase in engagement in these activities from baseline to eighteen months, but not to twelve months. From baseline to twelve months, 7.5% of clients began one of these activities and from baseline to eighteen months 3.7% began one of these activities. During the same time periods, 15.0% and 11.1% maintained these activities, respectively.

Constructive Activities					
	Percentage of clients who main	ntained or began the activity			
	Assessment 1 vs. 5	Assessment 1 vs. 7			
Employment	7.7% (N=39)	3.7% (N=27)			
Volunteer	5.0% (N=40)	7.4% (N=27)			
School	10.0% (N=40)	3.7% (N=27)			
Any Activity	22.5% (N=40)	14.8% (N=27)			

## Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, few JWCH - Bellflower clients (6.9%) had been homeless during the previous six months; as a result homelessness did not significantly decrease from baseline to twelve or eighteen months. From baseline to twelve months 95.7% of clients maintained housing, and from baseline to eighteen months all clients maintained housing.

## Stigma

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There were no significant changes in internalized stigma ratings from baseline to twelve or eighteen

Baseline ISMI Scores (All Clients N=68) Minimal to no internalized 38.2% stigma Mild internalized stigma 20.6% Moderate internalized stigma 32.4% 8.8% Severe internalized stigma

months after enrollment. Compared to baseline, at the twelve month assessment, 44.4% of JWCH - Bellflower clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings). Compared to baseline, at the eighteen month assessment, 28.6% of JWCH - Bellflower clients had a clinically meaningful reduction.

# **CLIENT SATISFACTION**

At the six month assessment, and at each subsequent semi-annual assessment, clients are randomly selected to take either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at each semiannual follow-up assessment. The Satisfaction with Services survey assesses client-perceived satisfaction with INN services.

### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. There was a significant increase in satisfaction from six months to twelve and eighteen months. Most client maintained high satisfaction (indicated by a response of "Agree" or "Strongly Agree") or increased their satisfaction from six to twelve months (82.3%) or from six to eighteen months (80.0%).

Client Satisfaction with Services						
	Percent of clients who increased or maintained high satisfaction					
	Assessment 3 vs. 5	Assessment 3 vs. 7				
I was able to get all the services I thought I						
needed.	94.1% (N=17)	100.0% (N=9)				
I felt comfortable asking questions about						
my treatment and medication.	93.8% (N=16)	88.9% (N=9)				
Staff were sensitive to my cultural						
background (race, religion, language, etc.).	100.0% (N=16)	100.0% (N=9)				
This program meets both my mental and						
physical health care needs.	93.8% (N=16)	100.0% (N=9)				
My beliefs about health and well-being						
were considered as part of the services						
that I received here.	100.0% (N=17)	100.0% (N=9)				

## **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

## **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." Of clients with a matched sample at the six and twelve month assessments and the six and eighteen month assessments, 100% of clients increased or maintained high satisfaction on each item.

## **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Of clients with a matched sample at the six and twelve month assessments, 94.1% of clients increased or maintained high satisfaction. From six to eighteen months, 80% of clients increased or maintained high satisfaction.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item - "I was able to get all the services I thought I needed" - was used to assess this. Of clients with a matched sample at the six and twelve month assessments, 84.6% of clients increased or maintained high satisfaction. From six to eighteen months, 100.0% of clients increased or maintained high satisfaction.

## **Integration**

Integration was assessed using several methods, however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." Of clients with a matched sample at the six and twelve month assessments, 93.8% of clients increased or maintained high satisfaction. From six to eighteen months, 100% of clients increased or maintained high satisfaction.

# JWCH/SCHARP - Lynwood

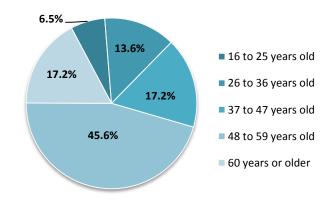
The mission of JWCH Institute - Lynwood is to improve the health status of underserved segments of the population of Los Angeles County through the direct provision of coordination of healthcare, health education, and research. JWCH developed and integrated medical and behavioral health teams in order to serve the most chronic and vulnerable homeless people in skid row. In addition to primary medical care, JWCH provides outpatient mental health counseling, residential services for women, and women with children, and outpatient substance abuse services for men and women. JWCH has clinics throughout Los Angeles County, with the Bellflower and Lynnwood clinics implementing the ICM program.

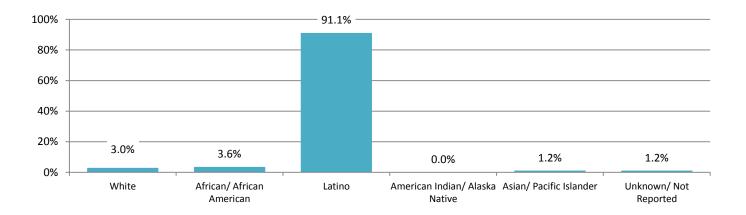
## **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, JWCH - Lynwood has enrolled 169 clients. Of these, 36 (21.3%) have been discharged from the program for any reason. Of the discharged clients, 2 (5.6%) met their treatment goals and were transitioned to a lower level of care.

JWCH - Lynwood clients are most likely to be between the ages of 48 to 59 (45.6%). Over half of clients are female (71.6%).

JWCH – Lynwood clients are most likely to identify as Latino (91.1%).





# **MENTAL HEALTH OUTCOMES**

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that

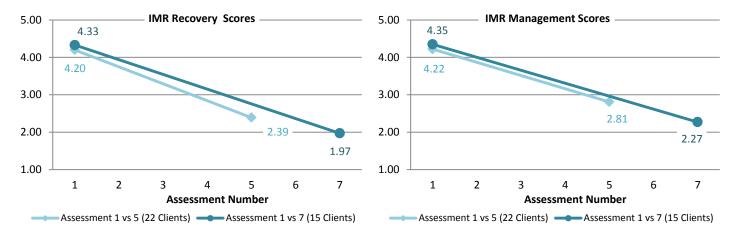
outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

# Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across JWCH - Lynwood clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to the twelve and the eighteen month assessments. On the Recovery and Management scales respectively, many clients had a clinically meaningful improvement from baseline to twelve months (95.5% and 81.8%). All clients had a clinically meaningful improvement from baseline to eighteen months. This indicates that, on average, JWCH - Lynwood clients made notable progress towards their recovery, and improved their ability to manage their mental health.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve months and from baseline to eighteen months, clients were significantly more likely to have family or friends involved in their treatment, and had significantly more frequent contact with friends. Many clients increased the level of involvement of their family and friends in their treatment from the baseline to the twelve month assessment (77.3%) and baseline to eighteen months (71.4%). Some clients also increased the amount of time they spend with people outside their family from baseline to twelve months (72.7%) and from baseline to eighteen months (92.9%).

# Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support

network. There was a significant increase in MORS scores from the baseline to the twelve and eighteen month assessments. Many clients had a clinically meaningful increase in MORS scores from baseline to twelve months (35.0%) or to eighteen months (84.6%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first eighteen months of services.

Milestones of Recovery (MORS) Ratings							
Rating	Stage of Recovery	Assessment 1 vs. 5 (20 Clients)		Assessment 1 vs.7 (13 Clients)			
1	Extreme Risk	0.0%	0.0%	0.0%	0.0%		
2	High Risk/Not Engaged	0.0%	0.0%	0.0%	0.0%		
3	High Risk/Engaged	5.0%	0.0%	0.0%	7.7%		
4	Poorly Coping/Not Engaged	0.0%	0.0%	7.7%	0.0%		
5	Poorly Coping/Engaged	75.0%	45.0%	92.3%	7.7%		
6	Coping/Rehabilitating	10.0%	25.0%	0.0%	23.1%		
7	Early Recovery	10.0%	15.0%	0.0%	30.8%		
8	Advanced Recovery	0.0%	15.0%	0.0%	30.8%		

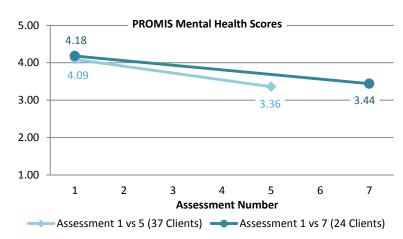
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. For the matched sample from baseline to twelve months, all clients were engaged based on their MORS scores at each time point. For the baseline to eighteen month matched sample, 92.3% of clients were engaged at the baseline and all of the clients were engaged at the eighteen month assessment.

# **Patient Reported Outcomes Measurement Information System (PROMIS)**

The PROMIS Global Health scale is a 10-item measure that assess client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) - 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

## PROMIS Global Health - Mental Health Subscale

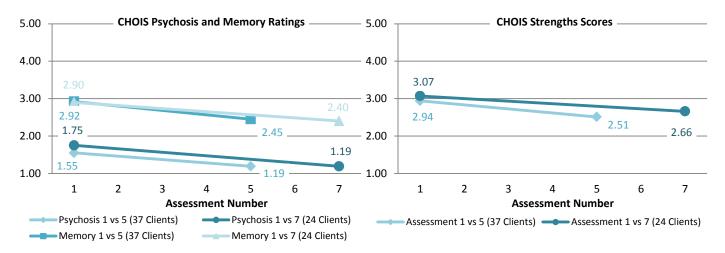
There were significant reductions in PROMIS Mental Health subscale scores from the baseline to the twelve and eighteen month assessments. This indicates that clients had fewer mental health symptoms after enrolling in the program. Many clients had a clinically meaningful improvement by twelve months (70.3%) or by eighteen months (75.0%).



# **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

There were significant reductions in scores on the CHOIS Strengths, Psychosis, and the Memory/Cognitive Impairment scales from the baseline to the twelve and eighteen month assessment. This indicates that, on average, JWCH - Lynwood clients reported improved resiliency, fewer symptoms of psychosis, and less cognitive impairment after enrolling in services. Many clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months (89.2%, 48.6% respectively) and eighteen months (91.6%, 45.9% respectively) after enrollment. Many clients had a clinically meaningful improvement in their Strengths subscale scores twelve months (43.2%) and eighteen months (62.5%) after enrollment.



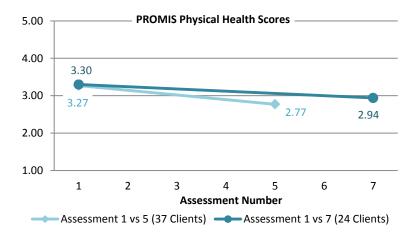
# PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on

these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# PROMIS Global Health – Physical Health Scale

There were significant reductions in PROMIS Physical Health scores from the baseline to the twelve and eighteen month assessments. This



indicates that clients were less impaired by their physical health. Clinically meaningful improvement in physical health was seen for 56.8% of JWCH - Lynwood clients from baseline to twelve months and for 41.7% from baseline to eighteen months.

## **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions. On the Physical Health and Behaviors survey, clients are asked how frequently they exercise to assess a dimension of physical health not covered in other measures.

## **Health Screening**

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first eighteen months of their enrollment in INN services.

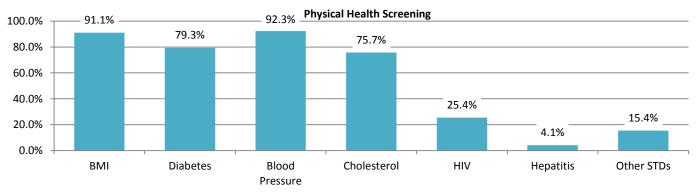


Chart provides the percentage of all JWCH Lynwood clients who have ever been screened for the above health conditions within 18 months since enrolling in Innovation services. All current and discharged JWCH Lynwood clients are included in the calculation of percentages, N=169.

## **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve or eighteen months after enrollment. However, from baseline to twelve and eighteen months some clients had a clinically meaningful improvement in BMI (8.3%, 6.1% respectively). Others maintained a healthy BMI from baseline to twelve months (10.4%) or eighteen months (9.1%).

Body Mass Index (BMI) Categorization							
Assessment #	Underweight	Normal Weight	Overweight	Obese			
Matched Sample Assessment 1 vs. 5 (48 Clients)							
1	0.0%	12.5%	35.4%	52.1%			
5	0.0%	14.6%	33.3%	52.1%			
Matched Sample Assessment 1 vs. 7 (33 Clients)							
1	0.0%	12.1%	24.2%	63.6%			
7	0.0%	12.1%	24.2%	63.6%			

### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the

American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was a significant reduction in risk for hypertension based on blood pressure from baseline to twelve months, but not from baseline to eighteen months. Some clients had a clinically meaningful reduction in blood pressure after twelve (30.6%) or eighteen months (25.7%). Other clients maintained a healthy blood pressure from baseline to twelve (42.9%) or eighteen months (45.7%).

Blood Pressure Categorization						
Assessment #	Normal	Pre- Hypertension	Stage 1 Hypertension	Stage 2 Hypertension	Hypertensive Crisis	
Matched Sample Assessment 1 vs. 5 (49 Clients)						
1	53.1%	30.6%	10.2%	4.1%	2.0%	
5	63.3%	28.6%	6.1%	2.0%	0.0%	
Matched Sample Assessment 1 vs.7 (35 Clients)						
1	54.3%	28.6%	8.6%	5.7%	2.9%	
7	57.1%	34.3%	5.7%	2.9%	0.0%	

### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was a significant increase in diabetes risk from the baseline to the eighteen month assessment, and no significant change from baseline to twelve months. However, some clients had a clinically meaningful reduction in diabetes risk after twelve months (10.5%), but none had a clinically meaningful reduction from baseline to eighteen months. Other clients maintained healthy A1C and glucose levels from baseline to twelve (15.8%) or eighteen months (9.5%).

Diabetes Categorization						
	Low Blood Sugar	Normal	High Normal	Pre-Diabetic	Diabetic	
Matched Sample	Assessment 1 vs. 5	(19 Clients)				
1	0.0%	15.8%	10.5%	26.3%	47.4%	
5	0.0%	5.3%	10.5%	26.3%	57.9%	
Matched Sample Assessment 1 vs. 7 (21 Clients)						
1	0.0%	14.3%	0.0%	33.3%	52.4%	
7	0.0%	9.5%	0.0%	14.3%	76.2%	

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels or risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve or eighteen month assessments. However, some clients had a clinically meaningful reduction in heart disease risk after twelve (26.7%) or eighteen months (26.7%). Other clients maintained a healthy cholesterol levels from baseline to twelve (40.0%) or eighteen months (33.3%).

Cholesterol Categorization						
	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk	
Matched Sample	Assessment 1 vs. 5	(15 Clients)				
1	6.7%	40.0%	26.7%	26.7%	0.0%	
5	13.3%	53.3%	13.3%	20.0%	0.0%	
Matched Sample Assessment 1 vs. 7 (15 Clients)						
1	13.3%	33.3%	20.0%	33.3%	0.0%	
7	20.0%	40.0%	0.0%	40.0%	0.0%	

## SUBSTANCE USE

Changes in clients' substance use were assessed using client self-report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

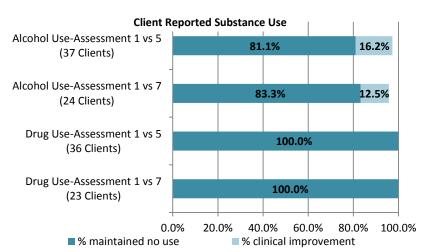
### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use. There was not enough data to analyze change from the baseline to the twelve or eighteen month assessments.

## Client Reported Substance Use Items

Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey.

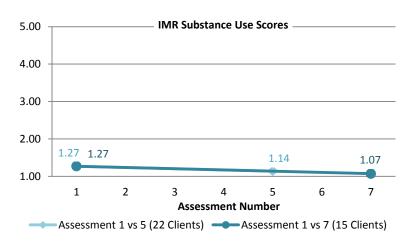
There were no significant changes in alcohol consumption or substance use among JWCH - Lynwood clients from the baseline to the twelve or eighteen month assessments. Some clients had a clinically meaningful reduction in alcohol use from baseline to twelve (16.2%) or eighteen months (12.5%). Other clients maintained no alcohol use from baseline to twelve (81.1%) or eighteen months (83.3%). For substance use, all clients maintained no



use from baseline to twelve and eighteen months.

# **Clinician Reported Substance Use:** IMR Substance Use Subscale

There were no significant changes in IMR Substance Use scores from baseline to twelve or eighteen months. From baseline to twelve and eighteen months some clients had a clinically meaningful reduction in substance use scores (9.1%, 13.3% respectively).



## **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on incarcerations, client and clinician report of emergency services, constructive activities such as employment, volunteer work, enrollment in school, status of housing, and mental health stigma. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: no service use, no mental health stigma, or current employment.

## **Incarcerations**

There were no significant changes in incarcerations from baseline to twelve or eighteen months. Some clients had a clinically meaningful reduction in incarcerations from baseline to twelve months (5.9%) or maintained no incarcerations (94.1%). No clients with a matched sample from baseline to eighteen months had been incarcerated at either time point.

Client Reported Incarcerations							
	During the past 6 months, how many times were you sent to jail or prison?						
None 1-3 times 4-6 times 7-10 times times							
Matched Sample	Assessment 1 vs. 5	(34 Clients)					
1	94.1%	5.9%	0.0%	0.0%	0.0%		
5	100.0%	0.0%	0.0%	0.0%	0.0%		
Matched Sample Assessment 1 vs. 7 (20 Clients)							
1	100.0%	0.0%	0.0%	0.0%	0.0%		
7	100.0%	0.0%	0.0%	0.0%	0.0%		

# **Emergency Services**

## **Client Report**

There were no significant changes in ER visits from baseline to twelve or eighteen months. Some clients had a clinically meaningful reduction in visits from baseline to twelve months (11.4%) or eighteen months (13.6%). During the same time periods, 71.4% and 54.5% maintained no ER visits, respectively.

Client Reported Emergency Service Use During the past 6 months, how many times did you go to an emergency room?								
	More than 10  None 1-3 times 4-6 times 7-10 times times							
Matched Sample	Matched Sample Assessment 1 vs. 5 (35 Clients)							
1	82.9%	14.3%	2.9%	0.0%	0.0%			
5	82.9%	14.3%	2.9%	0.0%	0.0%			
Matched Sample Assessment 1 vs. 7 (22 Clients)								
1	77.3%	18.2%	4.5%	0.0%	0.0%			
7	63.6%	31.8%	4.5%	0.0%	0.0%			

## Clinician Report

Few JWCH - Lynwood clients had been hospitalized at the baseline, so there was no significant reduction in hospitalizations at twelve and eighteen months. Some clients had a clinically meaningful reduction in hospitalizations from baseline to eighteen months (6.7%) or maintained no hospitalizations (93.3%). No clients with a matched sample from baseline to eighteen months had been hospitalized at either time point.

Psychiatric Hospitalization								
When is	When is the last time s/he has been hospitalized for mental health or substance abuse reasons?							
	None in the In the past 7-12 In the past 4-6 In the past 2-3 Within the last past year months months months month							
Matched Sample	Matched Sample Assessment 1 vs. 5 (22 Clients)							
1	100.0%	0.0%	0.0%	0.0%	0.0%			
5	100.0%	0.0%	0.0%	0.0%	0.0%			
Matched Sample Assessment 1 vs. 7 (15 Clients)								
1	93.3%	0.0%	0.0%	0.0%	6.7%			
7	100.0%	0.0%	0.0%	0.0%	0.0%			

### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve or eighteen months. From baseline to twelve months, 18.9% of clients began one of these activities and from baseline to eighteen months 12.5% began one of these activities. During the same time periods, 18.9% and 25.0% maintained these activities, respectively.

Constructive Activities					
	Percentage of clients who maintained or began the activity				
	Assessment 1 vs. 5 Assessment 1 vs. 7				
Employment	25.0% (N=36)	30.4% (N=23)			
Volunteer	9.1% (N=33)	9.0% (N=22)			
School	10.8% (N=37)	4.2% (N=24)			
Any Activity	37.8% (N=37)	37.5% (N=24)			

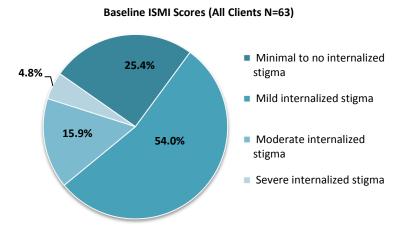
## Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, few JWCH - Lynwood clients (5.7%) had been homeless during previous six months; as a result homelessness did not significantly decrease from baseline to twelve or eighteen months. Of clients with a matched sample, all clients maintained housing from baseline to twelve or eighteen months.

## **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was a significant increase in internalized stigma ratings from baseline to eighteen months and no change from baseline to twelve months.



Compared to baseline, at the twelve month assessment, 16.7% of JWCH - Lynwood clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings), but no clients had a reduction from baseline to eighteen months.

## **CLIENT SATISFACTION**

At the six month assessment, and at each subsequent semi-annual assessment, clients are randomly selected to take either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at each semiannual follow-up assessment. The Satisfaction with Services survey assesses client-perceived satisfaction with INN services.

### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. All client maintained high satisfaction (indicated by a response of "Agree" or "Strongly Agree") or increased their satisfaction from six to twelve months; 82.3% of clients maintained high satisfaction or increased their satisfaction from six to eighteen months.

Client Satisfaction with Services				
	Percent of clients who increased or maintained high satisfaction			
	Assessment 3 vs. 5	Assessment 3 vs. 7		
I was able to get all the services I thought I				
needed.	100.0% (N=7)	N/A (N=2)		
I felt comfortable asking questions about				
my treatment and medication.	100.0% (N=7)	N/A (N=2)		
Staff were sensitive to my cultural				
background (race, religion, language, etc.).	100.0% (N=7)	N/A (N=2)		
This program meets both my mental and				
physical health care needs.	100.0% (N=7)	N/A (N=2)		
My beliefs about health and well-being				
were considered as part of the services				
that I received here.	100.0% (N=7)	N/A (N=2)		

## **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

## **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." Of clients with a matched sample at the six and twelve month assessments, 100% of clients increased or maintained high satisfaction on each item.

## **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Of clients with a matched sample at the six and twelve month assessments, 100% of clients increased or maintained high satisfaction.

### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item - "I was able to get all the services I thought I needed" - was used to assess this. Of clients with a matched sample at the six and twelve month assessments, 100% of clients increased or maintained high satisfaction.

## Integration

Integration was assessed using several methods, however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." Of clients with a matched sample at the six and twelve month assessments, 100% of clients increased or maintained high satisfaction.

# **Los Angeles LGBT Center**

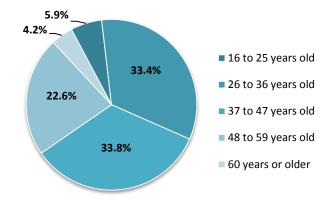
The Los Angeles Lesbian, Gay, Bisexual and Transgender Center exists to help lesbian, gay, bisexual, and transgender individuals in Southern California reach their physical and mental health potential by providing high quality health and mental health care in a compassionate and accepting manner, regardless of ability to pay. LA LGBT Center aims to: (a) empower people to lead full and rewarding lives without limits based on sexual orientation and gender identity, by providing the highest quality educational, cultural and wellness programs to residents of Los Angeles County, (b) heal the damage caused by discrimination based on sexual orientation and gender identity, by providing the highest quality health and social services to residents of Los Angeles County in need, (c) advocate full access and equality for all people regardless of sexual orientation or gender identity, by promoting their community's needs at local, state and national levels, and (d) lead through example, by living their values, sharing their expertise, and celebrating the full diversity of their lives, families and communities. LA LGBT Center began providing mental health services 40 years ago, initially by utilizing a peer counseling model, and later transitioned to a more professional model which included a large and extensive intern training program. Currently LA LGBT Center offers a wide variety of services, and participates in several inter-agency collaborations and community partnerships apart from the current INN project.

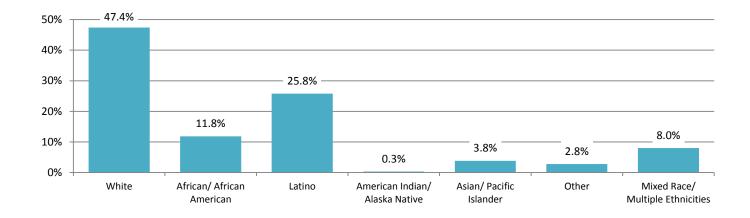
# **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, the LA LGBT Center has enrolled 287 clients. Of these, 134 (46.7%) have been discharged from the program for any reason. Of the discharged clients, 21 (15.7%) met their treatment goals and were transitioned to a lower level of care.

LA LGBT Center clients are most likely to be between the ages of 37 and 47 (33.8%) or 26 and 36 (33.4%). Over half of clients are male (76.0%), and 12.5% of clients identify as transgender or transsexual.

LA LGBT Center clients are most likely to identify as White (47.4%), followed by Latino (25.8%).





## **MENTAL HEALTH OUTCOMES**

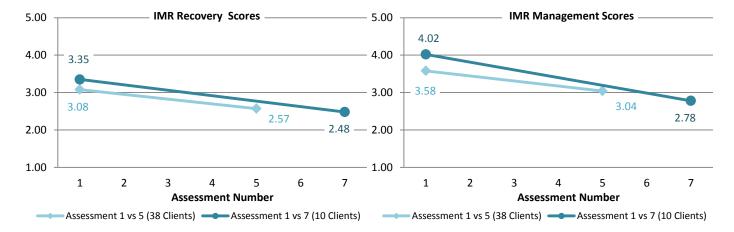
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

# Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across LA LGBT clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to the twelve and the eighteen month assessments. On the Recovery and Management scales respectively, many clients had a clinically meaningful improvement from baseline to twelve months (52.6% and 63.2%) and from baseline to eighteen months (70.0%, 80.0%). This indicates that, on average, Exodus Recovery, Inc. clients made notable progress towards their recovery, and improved their ability to manage their mental health.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve

months, but not from baseline to eighteen months, clients were significantly more likely to have family or friends involved in their treatment, and had significantly more frequent contact with friends. Many clients increased the level of involvement of their family and friends in their treatment from the baseline to the twelve month assessment (38.9%) and baseline to eighteen months (42.9%). Some clients also increased the amount of time they spend with people outside their family from baseline to twelve months (58.3%) and from baseline to eighteen months (57.1%).

## Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8, respectively) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network. There was a significant increase in MORS scores from the baseline to the eighteen month assessment, but not to the twelve month assessment. Many clients had a clinically meaningful increase in MORS scores from baseline to twelve months (50.0%) or to eighteen months (100%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first eighteen months of services.

Milestones of Recovery (MORS) Ratings						
Rating	Stage of Recovery	11000001111	Assessment 1 vs. 5 (14 Clients)		ent 1 vs.7 ents)	
1	Extreme Risk	0.0%	0.0%	0.0%	0.0%	
2	High Risk/Not Engaged	0.0%	7.1%	0.0%	0.0%	
3	High Risk/Engaged	7.1%	0.0%	0.0%	0.0%	
4	Poorly Coping/Not Engaged	21.4%	0.0%	50.0%	0.0%	
5	Poorly Coping/Engaged	14.3%	21.4%	25.0%	25.0%	
6	Coping/Rehabilitating	50.0%	57.1%	25.0%	50.0%	
7	Early Recovery	0.0%	7.1%	0.0%	25.0%	
8	Advanced Recovery	7.1%	7.1%	0.0%	0.0%	

MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Of clients with matched baseline and twelve month assessments, 78.6% were engaged at baseline and 92.9% were engaged a twelve months. All clients with matched baseline and eighteen month assessments were engaged at eighteen months.

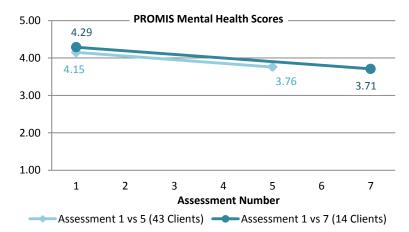
# **Patient Reported Outcomes Measurement Information System (PROMIS)**

The PROMIS Global Health scale is a 10-item measure aimed at assessing client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then categorized into a 5-point scale. For all PROMIS items and

scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

## PROMIS Global Health - Mental Health Subscale

There was a significant reduction in PROMIS Mental Health subscale scores from baseline to the twelve and eighteen month assessments. This indicates that clients had fewer mental health symptoms after enrolling in the program. Many

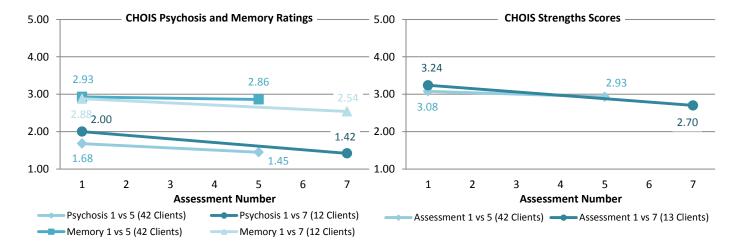


clients had a clinically meaningful improvement by twelve months (51.2%) or by eighteen months (57.1%).

# **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory /Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/ Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

There were significant changes on the CHOIS Psychosis scale from baseline to the twelve and eighteen month assessments, and on the Strengths scale from baseline to eighteen months. There were no significant changes on the Memory scale. This indicates that, on average, LA LGBT Center clients reported fewer symptoms of psychosis and less cognitive impairment after enrolling in services. Many clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months (83.3%, 33.3% respectively) and eighteen months (91.7%, 41.7% respectively) after enrollment. Many clients also had a clinically meaningful improvement in their Strengths subscale scores twelve months (35.7%) and eighteen months (61.5%) after enrollment.

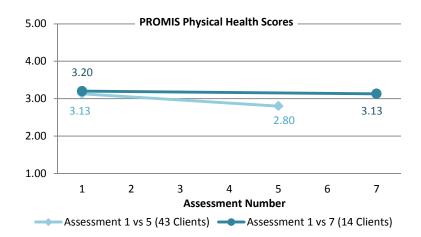


# PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

# **PROMIS Global Health – Physical Health Scale**

There was a significant reduction in PROMIS Physical Health scores from baseline to twelve months, but not from baseline to eighteen months. This indicates that clients had fewer limitations due to their physical health. Clinically meaningful improvement in physical health was seen for 46.5% of LA LGBT Center clients from baseline to twelve months and for 21.4% from baseline to eighteen months.



## **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions. On the Physical Health and Behaviors survey, clients are asked how frequently they exercise to assess a dimension of physical health not covered in other measures.

## Health Screening

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first eighteen months of their enrollment in INN services.

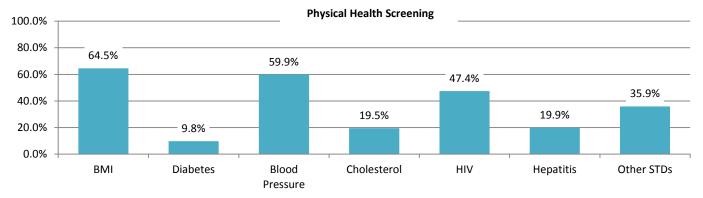


Chart provides the percentage of all Los Angeles LGBT Center clients who have ever been screened for the above health conditions within 18 months since enrolling in Innovation services. All current and discharged Los Angeles LGBT Center clients are included in the calculation of percentages, N=287.

## **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These are used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve or eighteen months after enrollment. However, from baseline to twelve some clients had a clinically meaningful improvement in BMI (10.7%); no clients had a clinically meaningful improvement from baseline to eighteen months. Others maintained a healthy BMI from baseline to twelve months (25.0%) or eighteen months (60.0%).

Body Mass Index (BMI) Categorization							
Assessment #	Underweight	Normal Weight	Overweight	Obese			
Matched Sample Assessment 1 vs. 5 (28 Clients)							
1	1 0.0% 28.6% 50.0% 21.4%						
5	3.6%	32.1%	32.1%	32.1%			
Matched Sample Assessment 1 vs. 7 (5 Clients)							
1	0.0%	80.0%	0.0%	20.0%			
7	0.0%	60.0%	20.0%	20.0%			

### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was a significant increase in risk for hypertension based on blood pressure from baseline to eighteen months but no change from baseline to twelve months. However, some clients had a clinically meaningful reduction in blood pressure after twelve (33.3%). No clients with a matched sample had a clinically meaningful improvement or maintained a healthy blood pressure from baseline to eighteen months.

Blood Pressure Categorization							
Assessment #	Normal	Pre- Hypertension	Stage 1 Hypertension	Stage 2 Hypertension	Hypertensive Crisis		
Matched Sample Assessment 1 vs. 5 (21 Clients)							
1	14.3%	57.1%	19.0%	9.5%	0.0%		
5	14.3%	61.9%	23.8%	0.0%	0.0%		
Matched Sample Assessment 1 vs.7 (3 Clients)							
1	100.0%	0.0%	0.0%	0.0%	0.0%		
7	0.0%	66.7%	33.3%	0.0%	0.0%		

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories. If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category. There was not enough data to analyze change from baseline to twelve or eighteen months.

### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were collected from clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category. There was not enough data to analyze change from baseline to twelve or eighteen months.

# **SUBSTANCE USE**

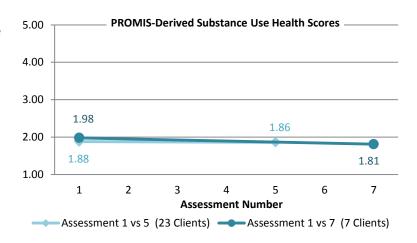
Changes in clients' substance use were assessed using client self- report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### **PROMIS-Derived Substance Use**

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

There were no significant changes on the PROMIS-Derived Substance Use ratings from the baseline to the twelve or eighteen month assessments. Twelve months after enrollment, 21.7% of LA LGBT Center clients had a clinically meaningful reduction in negative consequences

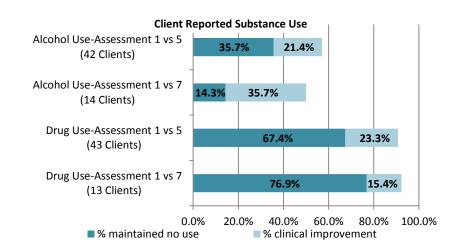


associated with alcohol and/or other drug use, and 52.2% maintained a healthy score. Eighteen months after enrollment, 14.3% of LA LGBT Center clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or other drug use, and 57.1% maintained a healthy score.

### Client Reported Substance Use Items

Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey.

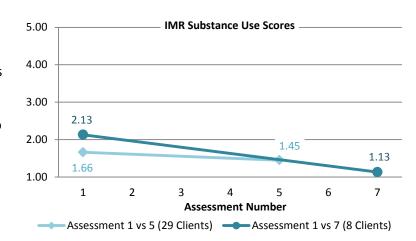
There were significant reductions in alcohol consumption and other substance use among LA LGBT Center clients from the baseline to the twelve month assessment, but not from baseline to the eighteen month assessment. Fewer clients reported using alcohol or other drugs and fewer clients reporting daily use. Some clients had a clinically meaningful reduction in alcohol use from baseline to twelve (21.4%) or eighteen months (35.7%). Other clients



maintained no alcohol use from baseline to twelve (35.7%) or eighteen months (14.3%). Some clients had a clinically meaningful reduction in substance use from baseline to twelve (23.3%) or eighteen months (15.4%). Other clients maintained no substance use from baseline to twelve (67.4%) or eighteen months (76.9%).

### **Clinician Reported Substance Use: IMR Substance Use Subscale**

LA LGBT Center clients with matched assessments had a significant decrease in IMR Substance Use scores from baseline to eighteen months, but not from baseline to twelve months. From baseline to twelve and eighteen months many clients had a clinically meaningful reduction in substance use scores (17.2%, 37.5% respectively). This indicates that, on average, alcohol and other drugs were less likely to impact the lives of clients.



### **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on incarcerations, client and clinician report of emergency services, constructive activities such as employment, volunteer work, or enrollment in school, status of housing, and mental health stigma. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of "healthy" scores include: no service use, no mental health stigma, or current employment.

#### **Incarcerations**

There were no significant changes in incarcerations from baseline to twelve or eighteen months. A few clients had a clinically meaningful reduction in incarcerations (2.4%) or maintained no incarcerations (90.5%) from baseline to twelve months. No clients with a matched baseline and eighteen month assessment had been incarcerated at either time point.

Client Reported Incarcerations						
	During the past 6	months, how many	times were you se	nt to jail or prison?		
	None	1-3 times	4-6 times	7-10 times	More than 10 times	
Matched Sample	Assessment 1 vs. 5	(42 Clients)				
1	97.6%	2.4%	0.0%	0.0%	0.0%	
5	92.9%	7.1%	0.0%	0.0%	0.0%	
Matched Sample Assessment 1 vs. 7 (13 Clients)						
1	100.0%	0.0%	0.0%	0.0%	0.0%	
7	100.0%	0.0%	0.0%	0.0%	0.0%	

#### **Emergency Services**

#### **Client Report**

There were no significant changes in ER visits from baseline to twelve or eighteen months. Some clients had a clinically meaningful reduction in visits from baseline to twelve months (16.3%) or eighteen months (14.3%). During the same time periods, 55.8% and 64.3% maintained no ER visits, respectively.

Client Reported Emergency Service Use					
	During the past 6 m	onths, how many t	imes did you go to a	an emergency room	1?
	None	1-3 times	4-6 times	7-10 times	More than 10 times
Matched Sample	Assessment 1 vs. 5	(43 Clients)			
1	69.8%	27.9%	2.3%	0.0%	0.0%
5	72.1%	23.3%	4.7%	0.0%	0.0%
Matched Sample Assessment 1 vs. 7 (14 Clients)					
1	85.7%	7.1%	7.1%	0.0%	0.0%
7	71.4%	28.6%	0.0%	0.0%	0.0%

#### Clinician Report

Few LA LGBT Center clients had been hospitalized at the baseline, so there was no significant reduction in hospitalizations at twelve and eighteen months. Some clients had a clinically meaningful reduction in hospitalizations (5.4%) or maintained no hospitalizations (89.2%) from baseline to twelve months. No clients with a matched baseline and eighteen month assessment had been hospitalized at either time point.

	Psychiatric Hospitalization					
When is	the last time s/he h	as been hospitalize	d for mental health	or substance abus	e reasons?	
	None in the past year	In the past 7-12 months	In the past 4-6 months	In the past 2-3 months	Within the last month	
Matched Sample	Assessment 1 vs. 5	(37 Clients)				
1	91.9%	2.7%	0.0%	5.4%	0.0%	
5	94.6%	2.7%	0.0%	2.7%	0.0%	
Matched Sample Assessment 1 vs. 7 (10 Clients)						
1	100.0%	0.0%	0.0%	0.0%	0.0%	
7	100.0%	0.0%	0.0%	0.0%	0.0%	

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There was a significant increase in engagement in these activities from baseline to eighteen months, but not from baseline to twelve months. From baseline to twelve months, 16.3% of clients began one of these activities and from baseline to eighteen months 57.1% began one of these activities. During the same time periods, 48.8% and 28.6% maintained these activities, respectively.

Constructive Activities					
	Percentage of clients who maintained or began the activi				
	Assessment 1 vs. 5 Assessment 1 v				
Employment	44.2% (N=43)	46.2% (N=14)			
Volunteer	27.9% (N=43)	15.4% (N=14)			
School	20.9% (N=43)	28.5% (N=14)			
Any Activity	65.1% (N=43)	85.7% (N=14)			

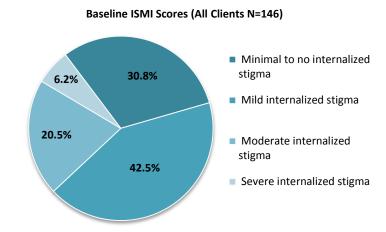
### Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, many LA LGBT Center clients (20.1%) had been homeless during the previous six months. There was a significant decrease in homelessness from baseline to twelve months. From baseline to twelve months 85.2% of clients with matched samples maintained housing, and from baseline to eighteen months all clients maintained housing.

### **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There were no significant changes in internalized stigma ratings from baseline to twelve or eighteen months after enrollment. Compared to baseline, at



the twelve month assessment, 55.6% of LA LGBT Center clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings) and at the eighteen month assessment, 33.3% of clients had a clinically meaningful reduction.

#### **CLIENT SATISFACTION**

At the six month assessment, and at each subsequent semi-annual assessment, clients are randomly selected to take either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at each semiannual follow-up assessment. The Satisfaction with Services survey assesses client-perceived satisfaction with INN services.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. Most client maintained high satisfaction (indicated by a response of "Agree" or "Strongly Agree") or increased their satisfaction from six to twelve months (85.7%) and all clients maintained high satisfaction from six to eighteen months.

Client Satisfaction with Services					
	Percent of clients who increased or maintained high satisfaction				
	Assessment 3 vs. 5	Assessment 3 vs. 7			
I was able to get all the services I thought I					
needed.	85.7% (N=7)	83.4% (N=6)			
I felt comfortable asking questions about					
my treatment and medication.	100.0% (N=7)	100.0% (N=5)			
Staff were sensitive to my cultural					
background (race, religion, language, etc.).	100.0% (N=7)	80.0% (N=5)			
This program meets both my mental and					
physical health care needs.	71.4% (N=7)	83.3% (N=6)			
My beliefs about health and well-being					
were considered as part of the services					
that I received here.	100.0% (N=7)	100.0% (N=6)			

#### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." Of clients with a matched sample at the six and twelve month assessments and from six to eighteen months, 100% of clients increased or maintained high satisfaction on each item.

#### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It is paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Of clients with a matched sample at the six and twelve month assessments and from six to eighteen months, 100% of clients increased or maintained high satisfaction on each item.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Of clients with a matched sample at the six and twelve month assessments, 85.7% of clients increased or maintained high satisfaction. From six to eighteen months, 83.4% of clients increased or maintained high satisfaction.

#### Integration

Integration was assessed using several methods, however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." Of clients with a matched sample at the six and twelve month assessments, 71.4% of clients increased or maintained high satisfaction. From six to eighteen months, 83.3% of clients increased or maintained high satisfaction.

# **Saban Community Clinic**

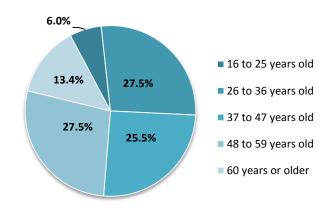
The Saban Community Clinic was founded as the Los Angeles Free Clinic in 1967 to meet the medical needs of young people who experience stigma when seeking care for sexually transmitted diseases, family planning, and substance use from mainstream doctors. Saban Community Clinic has evolved into a community-based, five clinic healthcare network that is an essential part of the safety net for the low income and uninsured. With more than four decades of experience in developing innovative, sustainable community-based medical services to meet the needs of the patient population, Saban Community Clinic combines intensive community-based outreach and education initiatives with a fully integrated medical treatment plan. Saban Community Clinic's mission is to, in collaboration with strategic partners, serve as a medical home for the underserved and those who are most vulnerable by providing a comprehensive, dependable and affordable quality healthcare in a caring environment. Clinic staff are culturally diverse and many are bilingual, helping to address the primary barriers to care that contributes to the growth of health disparities. As the medical home to over 20,000 unduplicated low income and indigent patients annually, Saban Community Clinic offers a unique opportunity to test innovative approaches to the provision of cost-effective, accessible, and culturally competent healthcare to diverse urban populations in California. Saban Community Clinic offers comprehensive medical care, specialty mental health services, and collaborates with the urgent care program at LA County/University of Southern California Medical Center.

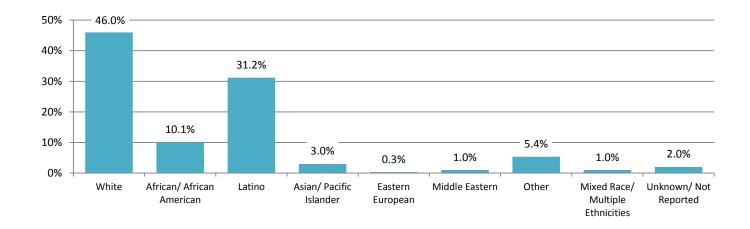
### **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, Saban Community Clinic has enrolled 298 clients. Of these, 161 (54.0%) have been discharged from the program for any reason. Of the discharged clients, 31 (19.3%) met their treatment goals and were transitioned to a lower level of care.

Saban Community Clinic clients are most likely to be between the ages of 26 and 36 (27.5%) or 49 and 59 (27.5%). Over half of clients are female (61.4%).

Saban Community Clinic clients are most likely to identify as White (46.0%), followed by Latino (31.2%).





#### **MENTAL HEALTH OUTCOMES**

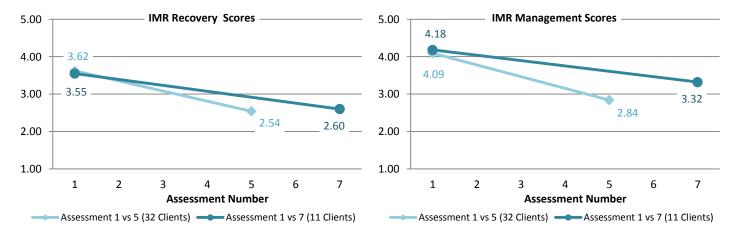
Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across Saban Community Clinic clients with matched assessments, there were significant decreases in the Recovery and the Management subscale scores from baseline to the twelve and the eighteen month assessments. On the Recovery and Management scales respectively, many clients had a clinically meaningful improvement from baseline to twelve months (81.3% and 90.6%) and from baseline to eighteen months (81.8%, 63.6%). This indicates that, on average, Saban Community Clinic clients made notable progress towards their recovery, and improved their ability to manage their mental health.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." From baseline to twelve

months and from baseline to eighteen months, clients had significantly more frequent contact with friends, but there was no change in their likelihood of having family or friends involved in their treatment. Many clients increased the level of involvement of their family and friends in their treatment from the baseline to the twelve month assessment (45.2%) and baseline to eighteen months (27.3%). Some clients also increased the amount of time they spend with people outside their family from baseline to twelve months (45.2%) and from baseline to eighteen months (54.5%).

#### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network. There was a significant increase in MORS scores from the baseline to the twelve and eighteen month assessments. Many clients had a clinically meaningful increase in MORS scores from baseline to twelve months (76.7%) or to eighteen months (60.0%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first eighteen months of services.

Milestones of Recovery (MORS) Ratings							
Rating	Stage of Recovery	Assessment 1 vs. 5 (30 Clients)		Assessment 1 vs.7 (10 Clients)			
1	Extreme Risk	0.0%	0.0%	0.0%	0.0%		
2	High Risk/Not Engaged	0.0%	0.0%	0.0%	0.0%		
3	High Risk/Engaged	23.3%	6.7%	40.0%	10.0%		
4	Poorly Coping/Not Engaged	3.3%	3.3%	0.0%	0.0%		
5	Poorly Coping/Engaged	60.0%	13.3%	40.0%	30.0%		
6	Coping/Rehabilitating	6.7%	30.0%	10.0%	30.0%		
7	Early Recovery	6.7%	43.3%	10.0%	30.0%		
8	Advanced Recovery	0.0%	3.3%	0.0%	0.0%		

MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Of clients with a matched sample, at the baseline assessment, 96.7% of clients were engaged based on their MORS scores, and there was no change to the twelve month assessment. For clients with a matched sample from baseline to eighteen months, all of the clients were engaged at the eighteen month assessment.

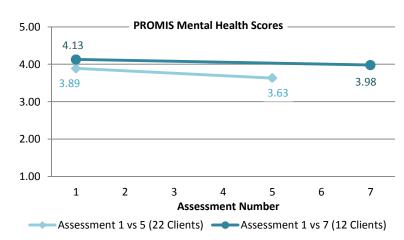
### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure aimed at assessing client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients

are also asked to rate their pain using a scale from 0 (no pain) – 10 (worst imaginable pain), which is then categorized into a 5-point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

PROMIS Mental Health subscale scores did not significantly change twelve or eighteen months after enrollment, however many clients had a clinically

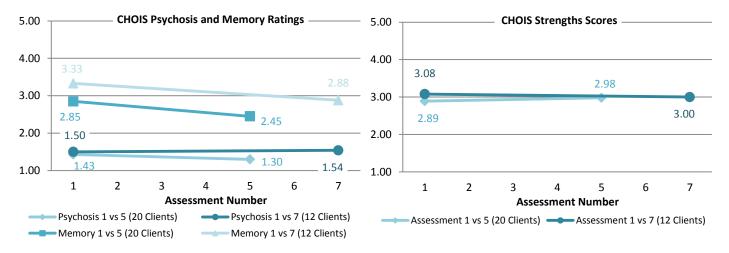


meaningful improvement by twelve months (40.9%) or by eighteen months (41.7%).

### **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths.

There were significant reductions on the CHOIS Memory/Cognitive Impairment scale from the baseline to the twelve and eighteen month assessments, but no change on the Psychosis or Strengths scales. This indicates that, on average, Saban Community Clinic clients reported less cognitive impairment after enrolling in services. Many clients maintained healthy scores or had a clinically meaningful improvement in their Psychosis or Memory/Cognitive Impairment ratings twelve months (85.0%, 55.0% respectively) and eighteen months (75.0%, 50.0% respectively) after enrollment. Many clients also maintained healthy scores or had a clinically meaningful improvement in their Strengths subscale scores twelve months (15.0%) and eighteen months (25.0%) after enrollment.

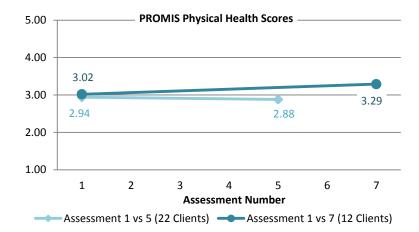


### PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

### **PROMIS Global Health – Physical Health Scale**

PROMIS Physical Health scores did not significantly change twelve and eighteen months after enrollment. Clinically meaningful improvement in physical health was seen for 27.3% of Saban Community Clinic clients from baseline to twelve months and for 16.7% from baseline to eighteen months.



#### **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey, which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions. On the Physical Health and Behaviors survey, clients are asked how frequently they exercise to assess a dimension of physical health not covered in other measures.

#### **Health Screening**

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first eighteen months of their enrollment in INN services.

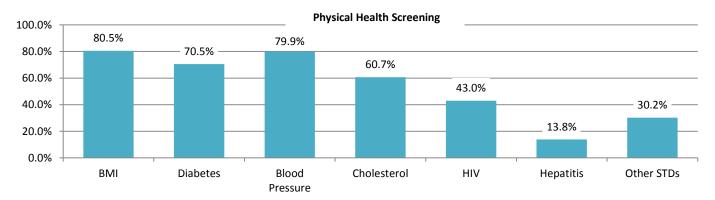


Chart provides the percentage of all Saban Free Clinic clients who have ever been screened for the above health conditions within 18 months since enrolling in Innovation services. All current and discharged Saban Free Clinic clients are included in the calculation of percentages, N=298.

### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These were used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC).

There was no significant change in BMI twelve and eighteen months after enrollment. However, from baseline to twelve and eighteen months some clients had a clinically meaningful improvement in BMI (2.7%, 12.5% respectively). Others maintained a healthy BMI from baseline to twelve months (32.0%) or eighteen months (25.0%).

Body Mass Index (BMI) Categorization							
Assessment #	Underweight	Normal Weight	Overweight	Obese			
Matched Sample Asse	essment 1 vs. 5 (75	Clients)					
1	2.7%	36.0%	28.0%	33.3%			
5	2.7%	33.3%	26.7%	37.3%			
Matched Sample Assessment 1 vs. 7 (40 Clients)							
1	5.0%	32.5%	32.5%	30.0%			
7	7.5%	32.5%	35.0%	25.0%			

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was a significant decrease in risk for hypertension based on blood pressure from baseline to the eighteen month assessment, but not to the twelve month assessment. Many clients had a clinically meaningful reduction in blood pressure after twelve (25.0%) or eighteen months (32.5%). Other clients maintained a healthy blood pressure from baseline to twelve (28.9%) or eighteen months (25.0%).

Blood Pressure Categorization						
Assessment #	Normal	Pre- Hypertension	Stage 1 Hypertension	Stage 2 Hypertension	Hypertensive Crisis	
Matched Sample	Assessment 1 vs. 5 (	76 Clients)				
1	40.8%	38.2%	21.1%	0.0%	0.0%	
5	44.7%	36.8%	17.1%	1.3%	0.0%	
Matched Sample Assessment 1 vs.7 (40 Clients)						
1	30.0%	37.5%	32.5%	0.0%	0.0%	
7	47.5%	35.0%	15.0%	2.5%	0.0%	

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was a significant reduction in diabetes risk from the baseline to the twelve month assessment, but not to the eighteen month assessment. Some clients had a clinically meaningful reduction in diabetes risk after twelve (31.4%) or eighteen months (17.4%). Other clients maintained healthy A1C and glucose levels from baseline to twelve (49.0%) or eighteen months (65.2%).

Diabetes Categorization						
	Low Blood Sugar	Normal	High Normal	Pre-Diabetic	Diabetic	
Matched Sample	Assessment 1 vs. 5	(51 Clients)				
1	2.0%	43.1%	27.5%	19.6%	7.8%	
5	2.0%	56.9%	19.6%	15.7%	5.9%	
Matched Sample	Matched Sample Assessment 1 vs. 7 (23 Clients)					
1	0.0%	56.5%	26.1%	13.0%	4.3%	
7	4.3%	60.9%	21.7%	8.7%	4.3%	

#### **Cholesterol**

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which were reported by clinicians on the Physical Health Indicators survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve or eighteen month assessments. Some clients had a clinically meaningful reduction in heart disease risk after twelve (7.3%) or eighteen months (15.0%). Other clients maintained a healthy cholesterol levels from baseline to twelve (36.6%) or eighteen months (30.0%).

Cholesterol Categorization						
	Optimal Level	Near Optimal Level	Borderline High Risk	High Risk	Very High Risk	
Matched Sample	Assessment 1 vs. 5	(41 Clients)				
1	17.1%	31.7%	14.6%	31.7%	4.9%	
5	19.5%	22.0%	14.6%	41.5%	2.4%	
Matched Sample Assessment 1 vs. 7 (20 Clients)						
1	15.0%	25.0%	15.0%	40.0%	5.0%	
7	25.0%	15.0%	15.0%	40.0%	5.0%	

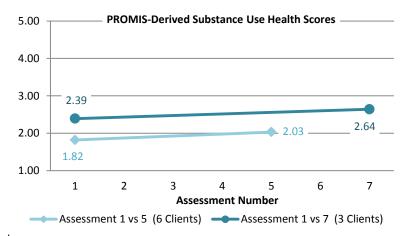
#### SUBSTANCE USE

Changes in clients' substance use were assessed using client self-report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### PROMIS-Derived Substance Use

The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use.

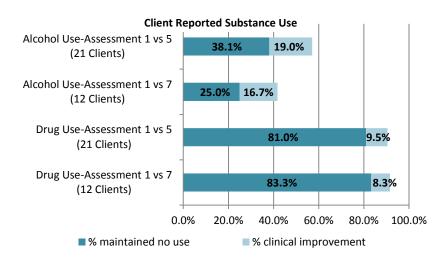


There was no significant change on the PROMIS-Derived Substance Use ratings from the baseline to the twelve month assessment. Twelve months after enrollment, 16.7% of Saban Community Clinic clients had a clinically meaningful reduction in negative consequences associated with alcohol and/or other drug use, and 50.0% maintained a healthy score. There was not enough data to analyze change from baseline to eighteen months.

#### **Client Reported Substance Use Items**

Clients reported how frequently they used alcohol, and illicit drugs on the Physical Health and Behaviors survey.

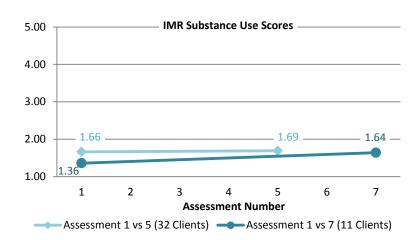
There were no significant changes in alcohol consumption or substance use among Saban Community Clinic clients from the baseline to the twelve or eighteen month assessments. Some clients had a clinically meaningful reduction in alcohol use from baseline to twelve (19.0%) or eighteen months (16.7%). Other clients maintained no alcohol use from baseline to twelve (38.1%) or eighteen months (25.0%). Some clients also had a clinically



meaningful reduction in substance use from baseline to twelve (9.5%) or eighteen months (8.3%). Other clients maintained no substance use from baseline to twelve (81.0%) or eighteen months (83.3%).

### **Clinician Reported Substance Use:** IMR Substance Use Subscale

There was no significant change in IMR Substance Use scores from baseline to twelve or eighteen month assessments. From baseline to twelve months some clients had a clinically meaningful reduction in substance use scores (15.6%). Of clients with a matched baseline and eighteen month assessment, there were no reductions in IMR Substance Use scores.



### **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on incarcerations, client and clinician report of emergency services, constructive activities such as employment, volunteer work, or enrollment in school, status of housing, and mental health stigma. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: no service use, no mental health stigma, or current employment.

#### **Incarcerations**

No clients with matched baseline and twelve or eighteen month assessments had been incarcerated, so there were no significant changes in incarcerations.

Client Reported Incarcerations  During the past 6 months, how many times were you sent to jail or prison?						
None 1-3 times 4-6 times 7-10 times times						
Matched Sample	Assessment 1 vs. 5	(20 Clients)				
1	100.0%	0.0%	0.0%	0.0%	0.0%	
5	100.0%	0.0%	0.0%	0.0%	0.0%	
Matched Sample Assessment 1 vs. 7 (11 Clients)						
1	100.0%	0.0%	0.0%	0.0%	0.0%	
7	100.0%	0.0%	0.0%	0.0%	0.0%	

#### **Emergency Services**

#### **Client Report**

There was a significant reduction in ER visits from baseline to the eighteen month assessment, but no change from baseline to twelve months. Some clients had a clinically meaningful reduction in visits from baseline to twelve months (10.5%) or eighteen months (27.3%). During the same time periods, 63.2% and 63.6% maintained no ER visits, respectively.

Client Reported Emergency Service Use					
	During the past 6 m	onths, how many t	imes did you go to	an emergency room	1?
	None	1-3 times	4-6 times	7-10 times	More than 10 times
Matched Sample	Assessment 1 vs. 5	(19 Clients)			
1	68.4%	26.3%	5.3%	0.0%	0.0%
5	73.7%	26.3%	0.0%	0.0%	0.0%
Matched Sample Assessment 1 vs. 7 (11 Clients)					
1	63.6%	36.4%	0.0%	0.0%	0.0%
7	90.9%	9.1%	0.0%	0.0%	0.0%

#### Clinician Report

Few Saban Community Clinic clients had been hospitalized at the baseline, so there was no significant reduction in hospitalizations at twelve and eighteen months. A few clients had a clinically meaningful reduction in hospitalizations from baseline to twelve months (3.1%) but not to eighteen months. During the same time periods, 93.8% and 90.9% maintained no hospitalizations, respectively.

Psychiatric Hospitalization							
When is	When is the last time s/he has been hospitalized for mental health or substance abuse reasons?						
	None in the past year	In the past 7-12 months	In the past 4-6 months	In the past 2-3 months	Within the last month		
Matched Sample	Assessment 1 vs. 5	(32 Clients)					
1	96.9%	0.0%	0.0%	0.0%	3.1%		
5	96.9%	3.1%	0.0%	0.0%	0.0%		
Matched Sample	Matched Sample Assessment 1 vs. 7 (11 Clients)						
1	100.0%	0.0%	0.0%	0.0%	0.0%		
7	90.9%	9.1%	0.0%	0.0%	0.0%		

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. There were no significant changes in engagement in these activities from baseline to twelve or eighteen months. From baseline to twelve months, 19.0% of clients began one of these activities and from baseline to eighteen months 33.3% began one of these activities. During the same time periods, 57.1% and 33.3% maintained these activities, respectively.

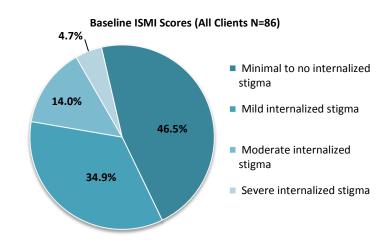
Constructive Activities						
	Percentage of clients who maintained or began the activity					
	Assessment 1 vs. 5 Assessment 1 vs. 7					
Employment	66.7% (N=21)	41.6% (N=12)				
Volunteer	23.8% (N=21)	16.7% (N=12)				
School	19.0% (N=21)	25.0% (N=12)				
Any Activity	76.1% (N=21)	66.6% (N=12)				

#### Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, few Saban Community Clinic clients (11.0%) had been homeless during previous six months; as a result homelessness did not significantly decrease from baseline to twelve or eighteen months. From baseline to twelve months 89.9% of clients maintained housing, and 2.9% were homeless for fewer days. From baseline to eighteen months 90.6% of clients maintained housing, and 6.3% were homeless for fewer days.

#### **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.



There were no significant changes in internalized

stigma ratings from baseline to twelve months after enrollment. Compared to baseline, at the twelve month assessment, 33.3% of Saban Community Clinic clients had a clinically meaningful reduction in mental health stigma (indicated by decreased ISMI ratings). There was not enough data to analyze change from baseline to eighteen months.

### **CLIENT SATISFACTION**

At the six month assessment, and at each subsequent semi-annual assessment, clients are randomly selected to take either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at each semiannual follow-up assessment. The Satisfaction with Services survey assesses client-perceived satisfaction with INN services.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. Most client maintained high satisfaction (indicated by a response of "Agree" or "Strongly Agree") or increased their satisfaction from six to twelve months (81.8%). There was not enough data to analyze change from six to eighteen months.

Client Satisfaction with Services						
	Percent of clients who increased or maintained high					
	satisf	action				
	Assessment 3 vs. 5	Assessment 3 vs. 7				
I was able to get all the services I thought I						
needed.	90.0 (N=11)	75.0% (N=4)				
I felt comfortable asking questions about						
my treatment and medication.	100.0% (N=10)	75.0% (N=4)				
Staff were sensitive to my cultural						
background (race, religion, language, etc.).	90.9% (N=11)	100.0% (N=4)				
This program meets both my mental and						
physical health care needs.	90.0% (N=10)	75.0% (N=4)				
My beliefs about health and well-being						
were considered as part of the services						
that I received here.	100.0% (N=11)	100.0% (N=4)				

### **Client Perception of Care**

Client responses to individual satisfaction items were also examined to answer specific questions about clients' perception of the INN services they received.

#### **Cultural Competency**

Cultural competency was a key goal for all INN programs. Because "culture" is an ambiguous term, it was important to capture the cultural competency of each program from the clients' perception. Two items from the Satisfaction survey were designed to capture cultural competency: "Staff were sensitive to my cultural background (race, religion, language, etc.)", and "My beliefs about health and well-being were considered as part of the services that I received here." Of clients with a matched sample at the six and twelve month assessments, 90.9% and 100% of clients increased or maintained high satisfaction, respectively. From six to eighteen months, 100% of clients increased or maintained high satisfaction on each item.

#### **Engagement**

Clinician perception of engagement in the INN program was captured through the MORS. It was paired with the clients' perception of their engagement based on the Satisfaction survey item: "I felt comfortable asking questions about my treatment and medication." Of clients with a matched sample at the six and twelve month assessments, 100% of clients increased or maintained high satisfaction. From six to eighteen months, 75.0% of clients increased or maintained high satisfaction.

#### **Desired Care**

One of the goals of INN was to empower clients in their recovery and to participate in developing their treatment plan. The Satisfaction survey item – "I was able to get all the services I thought I needed" – was used to assess this. Of clients with a matched sample at the six and twelve month assessments, 90.0% of clients increased or maintained high satisfaction. From six to eighteen months, 75.0% of clients increased or maintained high satisfaction.

### Integration

Integration was assessed using several methods, however it was important to capture the clients' perception of service integration. One item on the Satisfaction survey assessed this: "This program meets both my mental and physical health needs." Of clients with a matched sample at the six and twelve month assessments, 90.0% of clients increased or maintained high satisfaction. From six to eighteen months, 75.0% of clients increased or maintained high satisfaction.

# **Special Service for Groups – HOPICS**

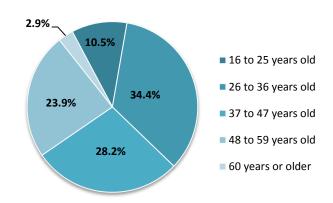
Special Service for Groups is a nonprofit organization dedicated to providing community-based solutions to the social and economic issues facing those in greatest need. This is achieved by developing and managing programs which serve many communities by encouraging community involvement and self-sufficiency. Special Service for Groups serves as a bridge between people across traditional ethnic, racial, and other cultural boundaries with common needs to identify ways to pool resources for the greatest good of all. A priority of Special Service for Groups is to develop and sustain innovative and culturally responsive treatment programs for serving primarily minority and often monolingual non-English-speaking clientele. In addition to traditional mental health services, Special Service for Groups provides advocacy and legal assistance, substance abuse services, HIV/AIDS management services, translation and training, and special programs for youth and older adults. Within Special Service for Groups, the ICM program – Homeless Outreach Program/Integrated Care System (HOPICS) – is dedicated to providing the highest quality innovative social services to South Los Angeles with an emphasis on behavioral health and housing stability.

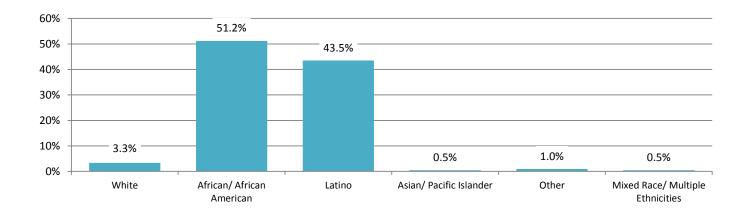
### **ENROLLMENT, DISCHARGE, AND DEMOGRAPHICS**

To date, SSG-HOPICS has enrolled 209 clients. Of these, 100 (47.8%) have been discharged from the program for any reason. Of the discharged clients, 4 (4.0%) met their treatment goals and were transitioned to a lower level of care.

SSG-HOPICS clients are most likely to be between the ages of 26 and 36 (34.4%) or 37 and 47 (28.2%). Just over half of clients are male (51.2%).

SSG-HOPICS clients are most likely to identify as African/ African American (51.2%), followed by Latino (43.5%).





### **MENTAL HEALTH OUTCOMES**

Changes in clients' mental health were assessed using four of the mental health scales; (1) the IMR Recovery and Management subscales, (2) the MORS, (3) the Mental Health subscale from the client reported PROMIS Global Health scale, and (4) the CHOIS. Improvement in clients' mental health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on the IMR subscales, the

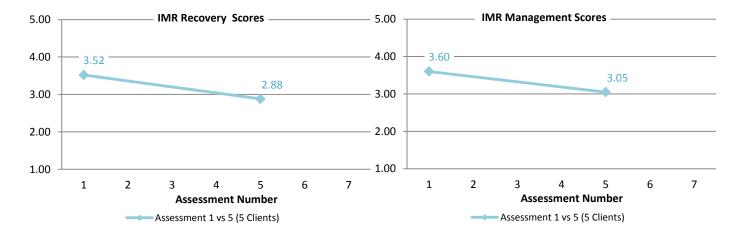
MORS, and the PROMIS Mental Health subscale. Clinical meaningfulness is determined using the Minimal Important Difference (MID), which represents the smallest improvement in a scale score that would indicate an observable change in client health. If the difference between a client's baseline and follow-up scores on a specific outcome measure is greater than the MID, that client is considered to have achieved a clinically meaningful change for that outcome.

For the CHOIS subscales, a program is considered to have a positive outcome if clients improve on the CHOIS, or if they maintain a "healthy" score during the evaluation period. Many clients were considered "healthy" at the baseline assessment, meaning their score indicated that they did not experience any negative symptoms. Ratings for the CHOIS were determined by combining the percentage of clients who maintained "healthy" ratings with the percentage who had a clinically meaningful improvement. Detailed descriptions of each measure can be found in the sections below.

#### Illness Management and Recovery (IMR) Scale

The Illness Management and Recovery (IMR) scale assesses client recovery from the perspective of the clinician. The IMR has 15 individual items, which make up an overall score and three subscales; Substance Use, Recovery (knowledge and goals), and Management (coping with illness outcomes). The IMR scale and subscales scores range from 1 to 5, with lower scores representing greater progress towards recovery.

Across SSG-HOPICS clients with matched assessments, there were significant decreases in the Recovery scores from baseline to the twelve month assessment, but not in the Management subscale scores. On the Recovery and Management scales respectively, many clients had a clinically meaningful improvement from baseline to twelve months (80.0% and 60.0%). There was not enough data to analyze change from baseline to eighteen months.



Two items from the IMR were also used to determine each client's level of social support: "How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?" and "In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)." There was no significant change in involvement or contact from baseline to twelve months. However, many clients increased the level of involvement of their family and friends in their treatment from the baseline to the twelve month assessment (40.0%). Some clients also increased the amount of time they spend with people outside their family from baseline to twelve months (20.0%).

#### Milestones of Recovery Scale (MORS)

The Milestones of Recovery Scale (MORS) captures clinician-reported recovery using a single item recovery indicator. Clinicians are asked to place clients into one of the eight stages of recovery (rated 1 through 8) based on a client's level of risk, their level of engagement within the mental health system, and the quality of their social support network. There was a significant increase in MORS scores from the baseline to the twelve and eighteen month assessments. Many clients had a clinically meaningful increase in MORS scores from baseline to twelve months (69.2%) or to eighteen months (100%). This indicates that overall, clinicians witnessed improvement in clients' recovery over the first eighteen months of services.

Milestones of Recovery (MORS) Ratings						
Rating	Stage of Recovery	Assessment 1 vs. 5 (13 Clients)		Assessment 1 vs.7 (5 Clients)		
1	Extreme Risk	0.0%	0.0%	0.0%	0.0%	
2	High Risk/Not Engaged	0.0%	0.0%	0.0%	0.0%	
3	High Risk/Engaged	46.2%	7.7%	80.0%	0.0%	
4	Poorly Coping/Not Engaged	30.8%	23.1%	20.0%	0.0%	
5	Poorly Coping/Engaged	15.4%	23.1%	0.0%	0.0%	
6	Coping/Rehabilitating	7.7%	15.4%	0.0%	80.0%	
7	Early Recovery	0.0%	30.8%	0.0%	20.0%	
8	Advanced Recovery	0.0%	0.0%	0.0%	0.0%	

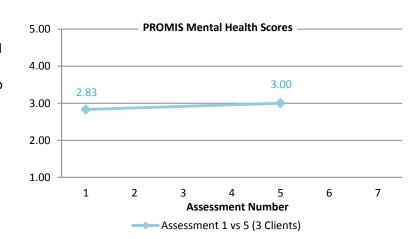
MORS scores were also used to determine whether clients were engaged in their recovery. The percentage of clients who were in one of the engaged categories was calculated for each time point (ratings of 3, or 5 through 8) to determine whether engagement improved as the clients progressed through treatment. Of clients with a matched sample, at the baseline assessment, 69.2% of clients were engaged based on their MORS scores, and 76.9% were engaged at twelve months. All clients with matched baseline and eighteen month assessments were engaged at the eighteen month assessment.

### Patient Reported Outcomes Measurement Information System (PROMIS)

The PROMIS Global Health scale is a 10-item measure that assesses client reported health including: physical health, pain, fatigue, mental health, and social health. Items are used to create a Total Global Health score and two subscale scores, Physical Health and Mental Health. PROMIS Global Health scores range from 1 to 5; however, clients are also asked to rate their pain using a scale from 0 (no pain) - 10 (worst imaginable pain), which is then converted into a 5point scale. For all PROMIS items and scales, lower scores represent fewer health concerns (i.e. lower scores are desirable).

#### PROMIS Global Health - Mental Health Subscale

There was no significant change in PROMIS Mental Health scores from baseline to twelve months after enrollment. Some clients had a clinically meaningful improvement by twelve months (33.3%). There was not enough data to analyze change from baseline to eighteen months.



### **Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)**

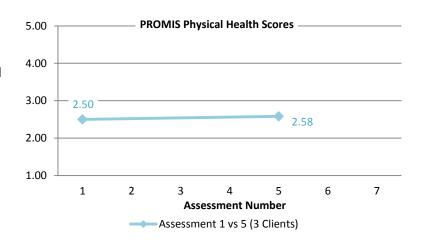
The CHOIS Supplement is a client-rated recovery-based measure that assesses several mental health related domains, including suicidal ideation, anxiety, trauma, psychosis (i.e. hearing voices), and memory and cognitive impairment. The CHOIS comprises three subscales: Psychosis, Memory and Cognitive Impairments, and Strengths. The Psychosis and Memory/ Cognitive Impairment subscales assess clients' perceptions of their mental health symptoms, while the Strengths subscale examines recovery-oriented personal strengths that can assist clients in their recovery. All CHOIS subscales range from 1 to 5, with lower scores being desirable. For the Psychosis and Memory/ Cognitive Impairment subscales, lower scores indicate fewer negative symptoms. For the Strengths subscale, lower scores indicate greater personal strengths. There was not enough data to analyze change in CHOIS scores from the baseline to the twelve or eighteen month assessments.

#### PHYSICAL HEALTH OUTCOMES

Changes in clients' physical health were assessed using client reported physical health as reported on the Physical Health subscale of the PROMIS Global Health scale. Physical Health Indicators were also used to examine client improvement on four of the most common health markers – body mass index (BMI), blood pressure, diabetes (blood glucose and A1C), and cholesterol. Improvement in clients' physical health was assessed using statistical significance analyses and by evaluating the percentage of clients with clinically meaningful improvements on PROMIS Physical Health subscale, and the percentage of clients who either improved on the physical health indicators, or maintained "healthy" ratings. For the four Physical Health Indicators, many clients fell into one of the healthy categories (ex. Normal BMI) at the baseline assessment. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain a healthy indicator score during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

### PROMIS Global Health – Physical **Health Scale**

There was no significant change in PROMIS Physical Health scores from baseline to twelve months, and no clients had a clinically meaningful improvement during that time. There was not enough data to analyze change in PROMIS Physical Health scores from baseline to eighteen months.



#### **Physical Health Indicators**

Clinician-reported physical health items were captured on the Physical Health Indicators survey which asks clinicians to report on the frequency and outcome of typical medical screening procedures, including: height, weight, and blood pressure, cholesterol, and chronic medical conditions. On the Physical Health and Behaviors survey, clients are asked how frequently they exercise to assess a dimension of physical health not covered in other measures.

#### **Health Screening**

The graph below shows the percentage of clients who were ever screened for each of the physical health conditions during the first eighteen months of their enrollment in INN services.

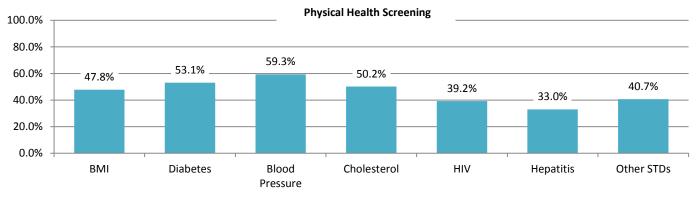


Chart provides the percentage of all SSG-HOPICS clients who have ever been screened for the above health conditions within 18 months since enrolling in Innovation services. All current and discharged SSG-HOPICSclients are included in the calculation of percentages, N=209.

#### **Body Mass Index (BMI)**

Clinicians provided clients' height and weight on the Physical Health Indicators survey. These are used to calculate Body Mass Index (BMI), a common method of determining whether an individual is at a healthy weight. Categories for BMI were determined using the standards published by the Centers for Disease Control (CDC). There was not enough data to analyze change in BMI from baseline to twelve or eighteen months.

#### **Blood Pressure**

Clinicians reported clients' systolic and diastolic blood pressure on the Physical Health Indicators survey. Systolic and diastolic readings were combined into a single indicator of risk for hypertension using the categories defined by the American Heart Association. These blood pressure categories, used in the table below, reflect clients' risk only for hypertension; additional criteria must be met for a diagnosis of hypertension.

There was no significant change in risk for hypertension based on blood pressure from baseline to twelve months after enrollment. However, some clients had a clinically meaningful reduction in blood pressure after twelve months (4.5%) and other clients maintained a healthy blood pressure (22.7%). There was not enough data to analyze change from baseline to eighteen months.

Blood Pressure Categorization						
Assessment #	Normal	Pre- Hypertension	Stage 1 Hypertension	Stage 2 Hypertension	Hypertensive Crisis	
Matched Sample Assessment 1 vs. 5 (22 Clients)						
1	31.8%	50.0%	18.2%	0.0%	0.0%	
5	27.3%	59.1%	9.1%	4.5%	0.0%	

#### **Diabetes**

Clinicians reported Fasting Glucose and A1C levels on the Physical Health Indicators survey. These two indicators were combined into a single risk category based on the American Diabetes Association categories (see the table below). If a client was categorized at different levels of risk based on their Fasting Glucose and A1C levels, they were placed into the higher category.

There was no significant change in diabetes risk from the baseline to the twelve month assessment. However, some clients had a clinically meaningful reduction in diabetes risk after twelve months (10.5%), and other clients

maintained healthy A1C and glucose levels from baseline to twelve months (47.4%). There was not enough data to analyze change from baseline to eighteen months.

Diabetes Categorization						
Low Blood Sugar Normal High Normal Pre-Diabetic Diabetic						
Matched Sample	Assessment 1 vs. 5	(19 Clients)				
1	0.0%	36.8%	10.5%	36.8%	15.8%	
5	0.0%	42.1%	15.8%	21.1%	21.1%	

#### Cholesterol

Risk for heart disease was determined by combining clients' HDL and LDL cholesterol levels, which reported by clinicians on the Physical Health Indicators Survey. Individual cholesterol risk categories associated with HDL and LDL levels were obtained from the American Heart Association. These two cholesterol indicators were then combined into a single risk category, displayed in the table below. If a client was categorized at different levels of risk based on their HDL and LDL levels, they were placed into the higher category.

There was no significant change in risk for heart disease from the baseline to the twelve month assessment, and no clients had a clinically meaningful reduction in heart disease risk after twelve months. Some clients maintained healthy cholesterol levels from baseline to twelve months (55.6%).

Cholesterol Categorization							
Near Optimal Borderline High Optimal Level Risk High Risk Very High Risk							
Matched Sample	Assessment 1 vs. 5	(18 Clients)					
1	22.2%	38.9%	0.0%	33.3%	5.6%		
5	22.2%	33.3%	5.6%	33.3%	5.6%		

#### **SUBSTANCE USE**

Changes in clients' substance use were assessed using client self-report, as well as the PROMIS-Derived Substance Use scale, which assesses the negative consequences of substance use. All clients were asked how frequently they used alcohol or illegal substances. Any clients who reported that they ever used alcohol or other substances were also asked to complete the PROMIS-Derived Substance Use scale. As a result, the response rate tended to be lower for the PROMIS. Client improvement was also tracked using the IMR Substance Use scale, which asks clinicians to rate how much alcohol and other drugs affect their client. Improvement in substance use was assessed by using statistical significance analyses and evaluating the percentage of clients who maintained "healthy" ratings or made clinically meaningful improvements on the PROMIS-Derived Substance Use scale and the IMR Substance Use scale. Clients were also considered to have positive outcomes for substance use if they maintained no alcohol or other substance use, or reduced their use over the evaluation period.

For each of the substance use measures, many clients were considered "healthy" at baseline, indicating that alcohol and other substances did not affect their lives. A program is considered to have a positive outcome if clients improve on these measures, or if they maintain no negative symptoms during the evaluation period. Detailed descriptions of each measure can be found in the sections below.

#### PROMIS-Derived Substance Use

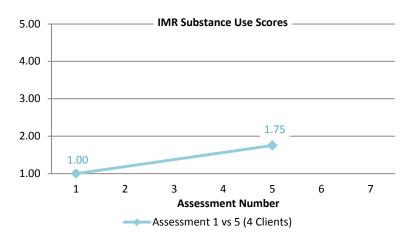
The 12-item PROMIS-Derived Substance Use measure assesses clients' perception of negative consequences of their alcohol and/or other substance use. Item and total scale scores range from 1 to 5, with lower scores indicating fewer client-perceived negative consequences associated with alcohol and/or other substance use. There was not enough data to analyze change from the baseline to the twelve or eighteen month assessment.

#### **Client Reported Substance Use Items**

Clients reported how frequently they used alcohol and illicit drugs on the Physical Health and Behaviors survey. There was not enough data to analyze change in alcohol or other substance use from the baseline to the twelve or eighteen month assessments.

### **Clinician Reported Substance Use: IMR Substance Use Subscale**

There was no significant change in IMR Substance Use scores from baseline to twelve months, and no clients had clinically meaningful improvement in their scores. There was not enough data to analyze change from baseline to eighteen months.



### **QUALITY OF LIFE**

While there are many indicators of client quality of life, the current evaluation focused on incarcerations, client and clinician report of emergency services, constructive activities such as employment, volunteer work, or enrollment in school, as well as status of housing, and mental health stigma. To determine client improvement, statistically significant changes in quality of life outcomes were assessed. Improvement was also assessed by examining the proportion of clients who maintained "healthy" ratings or made clinically meaningful improvements on the quality of life outcomes. For each of the quality of life measures, many clients were considered "healthy" at the beginning of the evaluation period. Examples of clients with "healthy" assessments include those with: no service use, no mental health stigma, or current employment.

#### **Incarcerations**

There was not enough data to analyze change from baseline to twelve or eighteen months.

### **Emergency Services**

#### Client Report

There were no significant changes in ER visits from baseline to twelve months. A few clients had a clinically meaningful reduction in visits from baseline to twelve months (33.3%), and 33.3% maintained no ER visits. There was not enough data to analyze change from baseline to eighteen months.

Client Reported Emergency Service Use						
During the past 6 months, how many times did you go to an emergency room?						
None 1-3 times 4-6 times 7-10 times times						
Matched Sample	Assessment 1 vs. 5	(3 Clients)				
1	66.7%	33.3%	0.0%	0.0%	0.0%	
5	66.7%	33.3%	0.0%	0.0%	0.0%	

#### Clinician Report

There was no significant reduction in hospitalizations at twelve months. Some clients had a clinically meaningful reduction in hospitalizations from baseline to twelve months (20.0%), and 80.0% maintained no hospitalizations. There was not enough data to analyze change from baseline to eighteen months.

Psychiatric Hospitalization							
When is the last time s/he has been hospitalized for mental health or substance abuse reasons?							
	None in the In the past 7-12 In the past 4-6 In the past 2-3 Within the last						
	past year	months	months	months	month		
Matched Sample	Assessment 1 vs. 5	(5 Clients)					
1	80.0%	0.0%	0.0%	20.0%	0.0%		
5	100.0%	0.0%	0.0%	0.0%	0.0%		

#### **Constructive Activities**

On the Physical Health and Behaviors survey, clients were asked to indicate if they had engaged in paid employment, participated in volunteer activities, or attended school in the previous six months. From baseline to twelve months, 66.7% of SSG-HOPICS clients began an activity. There was not enough data to analyze change from baseline to eighteen months.

Constructive Activities					
	Percentage of clients who maintained or began the activity				
	Assessment 1 vs. 5 Assessment 1 vs. 7				
Employment	0.0% (N=3)	N/A (N=1)			
Volunteer	66.7% (N=3)	N/A (N=1)			
School	0.0% (N=3)	N/A (N=1)			
Any Activity	66.7% (N=3)	N/A (N=1)			

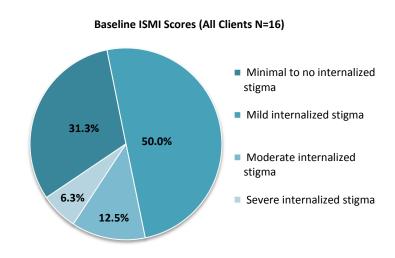
### Housing

Homelessness was assessed by asking clinicians to indicate on the Physical Health Indicators survey approximately how many days each client was homeless in the prior six months. At baseline, 25.0% of SSG-HOPICS clients had been homeless during previous six months. There was not enough data to analyze change in homelessness from baseline to twelve or eighteen months.

#### **Stigma**

The 10-item Internalized Stigma of Mental Illness (ISMI) scale assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma. ISMI scale scores are categorized into four levels of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized stigma, and severe internalized stigma.

There was not enough data to analyze change from baseline to twelve or eighteen months.



### **CLIENT SATISFACTION**

At the six month assessment, and at each subsequent semi-annual assessment, clients are randomly selected to take either the Satisfaction with Services survey, the Post-Outcomes survey, or the ISMI. Approximately one third of clients take each survey at each semiannual follow-up assessment. The Satisfaction with Services survey assesses client-perceived satisfaction with INN services.

#### **Overall Satisfaction**

Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services. There was not enough data to analyze overall client satisfaction, or client perception of care.

## **Conclusions**

### **OVERALL FINDINGS**

There are many differences between the goals and implementation protocols for each of the INN models. As such, the population served by each model was distinct, which led to the diverse findings presented in this report on the outcome measures and the ITT. Clients in the IMHT model are most likely to be African American or African Immigrants, and are primarily male. Clients in the ISM model are mostly female and are more likely to identify as Latino, or African American or African Immigrant. ICM clients are most likely to be Latino, and are evenly split between male and female clients.

Overall, scores on the baseline measures are similar for clients in the ISM and ICM programs; IMR (3.27, 3.31, respectively), MORS (4.75, 4.77, respectively), and PROMIS Mental Health (3.92, 4.05, respectively) and Physical Health (3.29, 3.24, respectively). Compared to clients in the ISM and ICM models, clients in the IMHT model were relatively more impaired when they entered the program, as can be seen from their scores on the baseline measures; IMR (3.57), MORS (3.36), and PROMIS Mental Health (3.90) and Physical Health (3.40).

IMHT clients are more likely than clients from the ISM or ICM models to be homeless, or to have been incarcerated, hospitalized, or seen at the emergency room in the six months prior to enrollment. Clients in the IMHT model were more likely to have consumed alcohol (65.9%) or used drugs (46.8%) than clients from the ISM model (44.3% drank alcohol, 11.9% used drugs) or the ICM model (40.9% drank alcohol, 14.4% used drugs). These differences between clients when they entered the program should be considered while reviewing outcome data, as clients with fewer resources or a longer history of health concerns and substance use may require more time or treatment options to make clinically meaningful improvements in their health.

Despite the high level of impairment required for enrollment in INN, there were many significant improvements in client health during the first twelve, eighteen, or twenty-four months of enrollment, and many clients were successfully discharged from one of the programs. Specifically, there were significant reductions in scores on the IMR for clients in each model. More than half of clients across models had a clinically meaningful improvement in Overall IMR scores. This indicates that clients were better able to manage their mental health and had made progress towards their recovery. There were also significant increases in scores on the MORS for clients in each model, indicating that clients were in more advanced stages of recovery after participating in INN. Scores on the PROMIS Global Health scale were also significantly reduced for clients from each of the models, indicating less impairment due to their physical and mental health. More than 30.0% of clients had a clinically meaningful improvement in reported Mental and Physical Health subscale scores across models. These universal improvements indicate that the models of care were effective for their specific target populations.

In addition to quantitative outcome measures, the ITT site visits reviewed program implementation practices. Several specific strengths across models were discovered, including organizational philosophy and outreach. Across all of the models, programs were observed to have a patient-centered approach, which was one of the key goals of each model. There is the caveat that there were notable structural barriers that applied across models - including that clients needed to use primary care within the INN program as a requirement of continued enrollment.

#### **MODEL SPECIFIC FINDINGS**

In addition to the global improvements in client health, the unique goals and implementation of each model led to model-specific improvements. For example, there was a significant reduction in ISMI scores from baseline to twelve months for ISM clients, but not for ICM or IMHT clients (IMHT clients had a significant reduction from twelve to twenty-four months). This indicates that ISM clients were significantly less likely to feel stigmatized based on their mental health twelve months after enrollment. This decrease in stigma may be related to the extensive, culturally competent community outreach efforts conducted by the ISM providers. While IMHT providers also engaged in extensive, field-based outreach efforts, it may have taken IMHT clients longer to experience a reduction in

stigma due to the greater impairment at enrollment and the transition into Permanent Supportive Housing.

As the quantitative evaluation tools could not fully capture how the ISM providers implemented their targeted outreach and engagement techniques, effectively reducing stigma, qualitative evaluation techniques were used to better describe the cultural practices implemented by the ISM providers. These included the Culturally-Responsive Treatment Study, and the Non-Traditional Services Focus Group. Preliminary analyses presented in the current report from these studies revealed many promising practices for outreach and service delivery to UREP populations. Specifically, ISM providers discovered several techniques, including the use of non-traditional services, culturally and linguistically appropriate hiring, and modified mental health terminology to facilitate engagement among difficult to reach groups and improved clients' comfort with formal mental health services, therefore enhancing client recovery outcomes. The final review of these studies will be presented separately.

As anticipated by the specific goals of the IMHT model, there was a significant reduction in homelessness for clients in the IMHT model. Additionally, there was a significant reduction in impairment and negative consequences associated with alcohol or substance use from baseline to twelve months, and from twelve to twenty-four months observed on the client reported PROMIS-Derived Substance Use scale, and from baseline to twelve months on the IMR Substance Use scale. Clients reported a significant reduction in alcohol use from baseline to twelve months. IMHT clients also had reductions in emergency service use, including significant reductions in ER visits and psychiatric hospitalizations from baseline to twelve months and incarcerations from twelve to twenty-four months. While there were significant reductions in some of these outcomes for the other models, the effect size was the largest for IMHT clients.

Clients in the ICM model showed the greatest improvement in physical health. There was a significant reduction in scores on the PROMIS Physical Health scale, a client reported measure, from baseline to twelve and eighteen months. There was also a significant reduction in blood pressure from baseline to twelve and eighteen months, as well as a significant

improvement in diabetes markers from baseline to twelve months, and in cholesterol from baseline to eighteen months. The reductions in physical health indicators are particularly meaningful, as many programs and the IMHT model overall had significant increases in these over the evaluation period. Additionally, almost half of clients maintained healthy cholesterol, diabetes and blood pressure levels or had a clinically meaningful improvement in risk category within a year of engaging in services.

#### **LESSONS LEARNED**

Innovation was designed to allow providers to freely implement novel techniques and develop promising practices that can be applied system-wide for LACDMH. Through learning sessions, site visits, trainings, and other communication, the INN program successfully fostered a learning community. INN providers were able to overcome challenges and barriers by sharing their experiences with other providers; LACDMH staff learned how to facilitate their providers' success. The key messages fit into a few overarching categories, which are highlighted here.

## **Internal Preparation for Integration** Staffing and Training

As INN programs began enrolling clients, it became clear to program leadership that INN staff required a greater level of commitment than for other programs. Staff members needed to have the values, skills, and cultural competency to fit with the model. Several providers were most successful when they used internal recruitment, or used their internal or external networks to find skilled team members.

INN programs brought a great deal of change to agencies and required initial and on-going training related to integration and the use of data. Providers felt that program-wide trainings at the beginning of INN would have been beneficial, including trainings related to clinical utility of the evaluation measures and LACDMH policies and practices. LACDMH and the evaluation team offered trainings as needed on diverse topics that were of interest to INN providers. Additionally, each provider began to offer trainings in a way that worked best for their staff. Some providers conducted formal internal trainings with exams, while others opted for more continuous training through the

discussion of case studies and multidisciplinary feedback during team meetings.

#### **Peers**

Across all models, providers felt that peers were critically important to the integrated teams as they played unique roles in engaging and supporting clients. A peer could be defined as someone with lived mental health or substance abuse experience or someone from the same cultural or geographic community. Peers were substance abuse counselors, therapists, translators and companions at doctor visits. The role varied by program and the specific peer's background and training. The definition and use of peers was refined and customized based on a specific program, community needs, and that community's concepts of mental health, substance abuse, and physical health. In the Latino ISM programs, peers filled the more traditional role of promotoras.

Some providers had trouble finding peers with enough recovery experience to serve as appropriate models for clients. When providers were lucky enough to find peers from their home community, there were also occasionally problems with peers having prior relationships with clients that limited their ability to work with them. Providers created peer job fairs to find qualified peers and were able to overcome many of these concerns by working with LACDMH. Other practical concerns, such as billing and training peers, required additional training in topics such as CPR and establishing boundaries with clients. Some providers reported that it was helpful to also train clinicians and physicians in the value and role of peers.

### **Interagency Preparation**

#### **Organizational Partnerships**

Many providers expressed challenges to developing successfully integrated partnerships. Throughout INN, providers stressed the importance of selecting the most appropriate partner, and having complete buy-in of leadership from each partnering agency, shared values, and shared expectations. Mental health, physical health, and substance abuse organizations often have different organizational cultures. Providers described how medical and mental health providers speak different languages, which initially slowed down communication. Recognition of these differences and

continuous communication and creative problem solving was vital.

There were also more practical concerns, such as developing a consistent standard for integrated charts, differences in technology types and use between partner sites, access to data, and receiving information in a timely manner. Few partners had Electronic Health Records (EHRs) or shared calendars, which initially made it difficult to schedule team meetings or consultations. Co-location did not necessarily mean that there was successful integration.

Cross training was one of the first tools to be implemented by providers to ensure that all staff were comfortable with the basic language and terminology of the other disciplines. In some cases this was a formal training, and in other cases team members spent extra time explaining charts and notes during team meetings. Agencies developed ways to be in constant communication in addition to holding consistent and regular team meetings. Partners developed systems of coordination that allowed them to communicate with any team member and access client information in real time, whether in person, on the phone, or via email. Many changes were made to how providers maintained and discussed client charts, as well as to the information that was included in the charts.

#### **Care Coordination**

Care coordination is complicated and the structure of each INN team was unique, which meant that many systems of care coordination were tested. There is no magic bullet, and co-location did not necessarily lead to efficient care coordination. Providers noted the importance of warm handoffs between care providers to help make a seamless transition and continuation of care. This was especially valuable when an INN team was co-located, allowing a therapist or case manager to lead a client directly to a physician and make a formal introduction (or vice versa). However, warm-hand offs alone did not create care coordination.

As agencies became more comfortable with INN, many established specific systems and protocols for care coordination elements such as reminders, medication reconciliation, labs, and referrals. Team meetings were another important part of care coordination. Care coordination took the efforts of the full INN team and support from management. Staff must buy-in to care

coordination and understand the importance of it, the time it takes, and the flow of information. Providers were the most satisfied with their care coordination when they had established a care coordination system and written policies; even then, it was important to refine them on an on-going basis especially as staff and partners changed.

#### **Team Meetings**

Initially, providers expressed that it was difficult to share clients across several agencies, but eventually developed effective infrastructure changes and workarounds to make integration work for their agency and for their clients. Many of the early challenges described in the previous sections were resolved by establishing team meetings to address specific issues of integration or service delivery.

For providers, team meetings provided multiple benefits and uses such as: care coordination, on-going program planning and problem-solving, team learning and real time training, and review and use of program and client data. Team meetings also enabled programs to complete outcome measures as a group or to followup with team members about missing data. Team meetings with a clear articulation of their purpose and a set meeting structure (i.e., ACT) appeared to be most valuable. Most team meetings were face to face although there were opportunities to utilize technology for virtual communication for some team members.

In addition to provider team meetings, the LACDMH team held regular team meetings that provided opportunities for on-going problem solving and continuous communication and sharing of successes and challenges of the models among providers.

#### Client Enrollment and Services

#### **Outreach and Engagement**

Prior to INN, providers' outreach strategies were more informal and less strategic. Providers from all of the models, but particularly across the ISMs found that there was continued resistance and stigma toward mental health services. As a result, providers developed more rigorous and focused outreach strategies that incorporated non-traditional methods to help increase enrollment. Within the ISM model, providers learned that due to stigma and cultural norms, it often took

longer than eight weeks to successfully engage a client for the first time.

Stigma was a significant challenge for most programs. To successfully reach their target populations, providers built relationships and awareness within their community as well as with individuals. As each provider targeted different populations and each program had varying focuses, outreach approaches, while sharing some similarities, were tailored to each target population. ISM programs found it helpful to avoid using mental health terms when speaking with community members or potential clients and in their written communications.

Initially, client enrollment was most likely to come through client concerns related to their physical health or wellbeing, housing, and access to resources. Later, providers were also able to incorporate social activities and events on broader educational topics into their outreach strategy to make their services more approachable, and moved away from settings that were identified with mental health or other stigmatized areas (e.g. HIV).

### Non-Traditional Services and Cultural Competency

Every provider across the models tried to deliver the most culturally competent services possible, which required continuous program improvement. Providers had to overcome community stigma and many client misconceptions about mental health and substance use services. Additionally, many new clients were unfamiliar with the LACDMH system and didn't understand what the agency could and could not do for them. Although many challenges arose related to non-traditional services and cultural competency, providers were able to adapt by continually putting the needs of their clients first, and advocating for their clients in the community and to LACDMH.

It was essential that cultural competency and nontraditional services were based on the specific community and individual needs and issues. Across all models, partnerships with the faith community and incorporating elements of religious and spiritual practices were found to be beneficial. ISM programs highlighted the importance of staff who could speak the clients' language and who were familiar with their social and cultural norms. Within the ISM programs, clients

were empowered to choose the non-traditional services that were of the most interest to them. Depending on level of acculturation and need, clients chose to participate in everything from Zumba to traditional healing ceremonies. Clients were also empowered to lead some of the non-traditional activities, especially poetry groups or other social activities.

### **Developing an Innovative Evaluation**

#### Data

Providers initially had many practical concerns about the use of data. They were concerned that clientreported data might not be accurate due to translation issues, cultural sensitivity, or social desirability. As data collection is a time-consuming process, providers were concerned about how to ensure that data was accurately entered into the system, and wanted to understand how to use outcome measures in their clinical practice. LACDMH and the evaluation team implemented several techniques to encourage the constructive use of data, including: discussions at learning sessions, group trainings focused on the clinical use of data, and providers sharing with each other how they used data.

Over time, programs began to use and embrace data at different levels. Clinicians used data to improve care and for conversations with clients to show change and progress; providers used data to change and improve aspects of their programs; DMH used data to make decisions. The data culture spread as providers began to see the benefit of using data to enhance their services and improve client care. Data also brought new transparency. It will be important moving forward to continue to use data for learning and not as punishment which could impact openness to sharing less positive results. Underperformance on outcome measures often led providers to implement some of their most successful and engaging service offerings.

Before data could be used by providers, it had to be accessible and relevant to providers' needs. In order to encourage data use, the evaluation team developed an electronic data management system. One key to developing iHOMS was close interaction between the designers of the system and stakeholders. New features were regularly added to iHOMS based on feedback from providers and LACDMH, including more efficient ways of tracking client assessments and more functional

reports. This interactive relationship helped ensure that the system features, such as live reporting and access to raw data, offered value to the providers and LACDMH. It was important to have help desk staff consistently accessible, as it allowed dialogue between system designers and system users. Along with regular trainings, the help desk improved providers' comfort and ability to use the system. This dialogue also helped to develop upgrades to the system, such as progress bars and notification alerts, which further enhanced user satisfaction.

Additionally, there were several technical details of iHOMS that proved essential, primarily that providers had a secure connection to the internet. The fileshare system that was set up was crucial to allow secure transfer of data files. The system was also web-based, which allowed providers to access it from computers or mobile devices without downloading software or an application.

Tablets were distributed to providers at the beginning of the evaluation to determine whether they would streamline the data collection and management process. While several providers did successfully incorporate the tablets into their protocol, they weren't widely adopted due to slow page loading and a primarily older population who was more comfortable using paper assessments than new technology.

#### Measurement

While INN providers learned how to improve their integrated programs, the evaluation team learned how to engage the providers in the evaluation, and how to meet the needs of a diverse set of stakeholders. There were several barriers to measurement collection that had to be overcome through the course of the evaluation. Despite the differences between the models, the evaluation components were standardized so that outcomes for each program would be comparable. These components captured most of the goals for the INN models, but limited the ability to look closer at the unique aspects of each model. It wasn't until late in the evaluation that providers expressed a desire to include additional measures, for example the ISM providers wanted to more consistently track the effects of non-traditional services.

Although providers had the opportunity to add measures at the beginning of the evaluation, at the time they weren't fully engaged in the evaluation. They may have been more willing to suggest additional measures after receiving the evaluation trainings and learning more about how the measures would be used by LACDMH and how they could be used internally to improve services. Instead of adding new quantitative measures, the evaluation team implemented several qualitative studies that focused on topics such as interagency communication, cultural competency and non-traditional services. These studies provided great context for the outcome measures, but could have been supplemented with more targeted, model-specific outcome measures.

One limitation of the current study is that the baseline measures were implemented after many of the providers (especially within the IMHT model) had already begun enrolling clients. This meant that many clients who had been in the program from the beginning were missing baseline assessments and could not be included in the matched samples (this is why there is no baseline to twenty-four month matched sample for IMHT). To prevent this in the future, it would be beneficial to have an evaluator start before the providers begin enrolling clients so that the measures selection process could be completed by the time clients are enrolled.

#### Relationships with LACDMH

LACDMH staff also took away several lessons from INN, including how to best facilitate program success. This was a unique opportunity for LACDMH staff to use a different approach in working with providers. Rather than auditing programs, LACDMH tried to learn from

providers at site visits. This was a large cultural shift for LACDMH.

Providers who were early adopters made the effort to work with LACDMH to find unique solutions to contracting, billing, and other challenges. They focused on the intended goal of the program and did not let procedures and existing structures bog them down. As a result, the role of LACDMH and the relationships between LACDMH and the providers continued to evolve throughout INN, becoming more collaborative and partnership focused.

### **NEXT STEPS**

Overall, each model of integrated care was successful at improving clients' physical and mental health, reducing substance use, and improving quality of life. Individual INN programs and the LACDMH system as a whole can learn from both the successes of the models, and the challenges that individual providers faced.

The evaluation team will continue to analyze both the quantitative and qualitative data components to develop a greater understanding of the INN models, clients, and the best practices for implementation. Additional statistical techniques will be used to determine the client and program characteristics that may lead to the greatest improvements in client mental and physical health.

Recommendations will be made to LACDMH regarding the most efficient way to continue collecting outcome measures, ongoing data use, and innovations that can be applied system-wide.

# **Appendix A: Service Costs by Provider**

Costs in the tables below include both Medi-Cal FFS and County costs. Costs were based on approved claims.

### **IMHT**

IMHT Annual per Client INN costs							
Provider	N	INN Services Mean	COS Mean	CSS Physical Mean	CSS Mean	INN Total Mean	
Exodus Recovery, Inc.	145	\$15,242	\$180	\$954	\$5,078	\$20,499	
JWCH/SCHARP/BHS	115	\$17,979	\$305	\$1,259	\$2,111	\$20,395	
MHALA – HIP	104	\$18,923	\$1,236	\$4,046	\$8,996	\$29,155	
St. Joseph Center/OPCC	146	\$15,300	\$209	\$1,478	\$3,761	\$19,270	
Step UP on Second	69	\$14,294	\$2,438	\$5,151	\$9,653	\$26,385	
Overall (Sum or Mean)	579	\$16,348	\$671	\$2,202	\$5,405	\$22,425	

Note: INN costs and CSS costs are from SvcList in the LACDMH Integrated System. COS costs are from SvcListCOS in the LACDMH Integrated System.

IMHT Average Cost/QALY						
Provider	INN Total Mean	QALY	Cost/QALY			
Exodus Recovery, Inc.	\$20,499	0.055	\$372,718			
JWCH/SCHARP/BHS	\$20,395	0.032	\$637,347			
MHALA – HIP	\$29,155	0.073	\$399,383			
St. Joseph Center/OPCC	\$19,270	0.067	\$287,611			
Step UP on Second	\$26,385	0.025	\$1,055,395			
Overall (Sum or Mean)	\$22,425	0.053	\$423,109			

IMHT Annual Non-INN Service Use and Costs per Client										
Provider		% Using Mean IP Days		IP Days	% Using ER		Mean ER Visits		Non-INN Costs	
Year	Prior	After	Prior	After	Prior	After	Prior	After	Prior	After
Exodus Recovery, Inc.	20.7%	16.6%	5.0	3.7	22.8%	11.7%	0.67	0.22	\$8,245.70	\$6,178.58
JWCH/SCHARP/BHS	9.6%	9.6%	2.0	3.2	11.3%	6.1%	0.37	0.24	\$3,534.58	\$5,352.07
MHALA – HIP	11.5%	12.5%	1.9	2.0	5.8%	4.8%	0.14	0.06	\$3,231.00	\$3,829.07
St. Joseph Center/OPCC	8.2%	6.9%	1.1	3.1	5.5%	3.4%	0.17	0.07	\$1,967.85	\$4,953.47
Step UP on Second	10.1%	11.6%	3.2	1.9	11.6%	10.1%	0.30	0.25	\$5,480.20	\$3,261.96
Overall (Sum or Mean)	12.4%	11.4%	2.7	2.9	11.7%	7.1%	0.34	0.16	\$4,480.14	\$4,849.48

Note: Psychiatric and emergency services are from EpisodeList in the LACDMH Integrated System.

# <u>ISM</u>

	ISM Annual per Client INN costs									
Provider	N	INN Services Mean	COS Mean	CSS Physical Mean	CSS Mean	INN Total Mean				
APHCV/Pacific Clinics	65	\$6,527	\$1,960	\$3,715	\$4,188	\$12,675				
Alma Family Services	240	\$5,409	\$69	\$791	\$957	\$6,436				
Didi Hirsch	114	\$9,307	\$1,125	\$1,013	\$2,340	\$12,772				
IMCES	89	\$7,704	\$6,376	\$1,584	\$1,978	\$16,058				
Jewish Family Service	107	\$6,224	\$397	\$1,835	\$2,603	\$9,224				
Kedren	274	\$4,543	\$6	\$1,056	\$2,404	\$6,953				
Korean	72	\$5,684	\$1,520	\$3,162	\$4,719	\$11,923				
LACGC/Barbour & Floyd	86	\$10,256	\$2,038	\$1,296	\$2,381	\$14,676				
PACS	115	\$6,712	\$2,962	\$650	\$1,459	\$11,133				
SSG- API Alliance (Samoan)	22	\$9,381	\$9,922	\$4,142	\$16,275	\$35,578				
St. Joseph Center	132	\$7,219	\$1,896	\$2,190	\$3,296	\$12,412				
Tarzana Treatment Center	212	\$5,912	\$1,638	\$782	\$1,185	\$8,735				
UAII	144	\$8,865	\$996	\$2,240	\$3,215	\$13,076				
UMMA/Weber	156	\$5,826	\$1,268	\$2,035	\$2,952	\$10,046				
Overall (Sum or Mean)	1828	\$6,587	\$1,459	\$1,517	\$2,496	\$10,541				

Note: INN costs and CSS costs are from SvcList in the LACDMH Integrated System. COS costs are from SvcListCOS in the LACDMH Integrated System.

ISM Average Cost/QALY								
Provider	INN Total Mean	QALY	Cost/QALY					
APHCV/Pacific Clinics	\$12,675	0.018	\$704,145					
Alma Family Services	\$6,436	0.089	\$72,310					
Didi Hirsch	\$12,772	0.015	\$851,442					
IMCES	\$16,058	0.136	\$118,071					
Jewish Family Service	\$9,224	-0.015	n/a					
Kedren	\$6,953	0.027	\$257,525					
Korean	\$11,923	0.103	\$115,753					
LACGC/Barbour & Floyd	\$14,676	0.075	\$195,681					
PACS	\$11,133	0.029	\$383,899					
SSG- API Alliance (Samoan)	\$35,578	0.042	\$847,085					
St. Joseph Center	\$12,412	0.049	\$253,297					
Tarzana Treatment Center	\$8,735	0.060	\$145,580					
UAII	\$13,076	0.049	\$266,860					
UMMA/Weber	\$10,046	0.070	\$143,517					
Overall (Sum or Mean)	\$10,541	0.054	\$195,209					

ISM Annual Non-INN Service Use and Costs per Client										
Provider	% U	lsing tient	Mean IP Days		% Using ER		Mean ER Visits		Non-INN Costs	
Year	Prior	After	Prior	After	Prior	After	Prior	After	Prior	After
APHCV/Pacific Clinics	4.6%	6.2%	0.77	1.46	6.2%	3.1%	0.06	0.03	\$1,378.83	\$2,522.46
Alma Family Services	0.4%	2.1%	0.01	0.16	0.4%	0.8%	0.00	0.01	\$222.67	\$405.84
Didi Hirsch	2.6%	1.8%	0.11	0.14	0.9%	0.9%	0.01	0.01	\$436.20	\$599.51
IMCES	3.4%	0.0%	0.09	0.00	3.4%	1.1%	0.03	0.01	\$345.63	\$192.79
Jewish Family Service	3.7%	1.9%	0.11	0.13	1.9%	1.9%	0.01	0.02	\$370.53	\$461.39
Kedren	4.7%	4.4%	1.60	0.55	5.8%	6.2%	0.08	0.09	\$3,471.89	\$1,334.21
Korean	0.0%	0.0%	0.00	0.00	1.4%	0.0%	0.01	0.00	\$332.42	\$283.08
LACGC/Barbour & Floyd	0.0%	1.2%	0.00	0.04	1.2%	0.0%	0.01	0.00	\$215.90	\$248.61
PACS	0.0%	0.9%	0.00	0.06	0.0%	0.0%	0.00	0.00	\$217.02	\$316.01
SSG- API Alliance (Samoan)	4.6%	0.0%	1.00	0.00	0.0%	0.0%	0.00	0.00	\$3,361.57	\$183.85
St. Joseph Center	1.5%	1.5%	0.05	0.07	1.5%	0.8%	0.02	0.01	\$308.11	\$364.01
Tarzana Treatment Center	2.8%	2.4%	0.35	0.17	3.3%	0.9%	0.03	0.01	\$806.97	\$509.62
UAII	0.7%	0.0%	0.25	0.00	0.7%	0.7%	0.01	0.01	\$559.53	\$182.89
UMMA/Weber	0.6%	1.3%	0.05	0.15	0.0%	1.3%	0.00	0.03	\$271.12	\$841.96
Overall (Sum or Mean)	2.1%	2.0%	0.37	0.21	2.1%	1.7%	0.02	0.02	\$842.85	\$646.18

Note: Psychiatric and emergency services are from EpisodeList in the LACDMH Integrated System.

## **ICM**

ICM Annual per Client INN costs										
Provider	N	INN Services Mean	COS Mean	CSS Physical Mean	CSS Mean	INN Total Mean				
Exodus Recovery, Inc.	246	\$5,842	\$53	\$827	\$1,826	\$7,721				
JWCH/SCHARP – Bellflower	194	\$4,717	\$101	\$835	\$882	\$5,700				
JWCH/SCHARP - Lynwood	181	\$4,287	\$82	\$895	\$882	\$5,252				
LA LGBT Center	163	\$2,983	\$126	\$0	\$2,018	\$5,127				
SSG – HOPICS	225	\$4,614	\$400	\$534	\$1,134	\$6,148				
Saban Community Clinic	291	\$4,008	\$56	\$496	\$1,224	\$5,288				
Overall (Sum or Mean)	1300	\$4,476	\$134	\$609	\$1,323	\$5,934				

Note: INN costs and CSS costs are from SvcList in the LACDMH Integrated System. COS costs are from SvcListCOS in the LACDMH Integrated System.

ICM Average Cost/QALY								
Provider	INN Total Mean	QALY	Cost/QALY					
Exodus Recovery, Inc.	\$7,721	0.044	\$175,483					
JWCH/SCHARP – Bellflower	\$5,700	0.010	\$570,014					
JWCH/SCHARP - Lynwood	\$5,252	0.088	\$59,680					
LA LGBT Center	\$5,127	0.054	\$94,952					
SSG – HOPICS	\$6,148	-0.058	n/a					
Saban Community Clinic	\$5,288	0.026	\$203,370					
Overall (Sum or Mean)	\$5,934	0.048	\$123,616					

ICM Annual Non-INN Service Use and Costs per Client										
Provider	% Using Inpatient		Mean IP Days		% Using ER		Mean ER Visits		Non-INN Costs	
Year	Prior	After	Prior	After	Prior	After	Prior	After	Prior	After
Exodus Recovery, Inc.	5.3%	3.3%	0.72	0.46	18.3%	4.5%	0.25	0.05	\$1,613.96	\$1,036.08
JWCH/SCHARP – Bellflower	3.1%	2.6%	0.40	0.46	1.0%	2.6%	0.02	0.04	\$867.32	\$1,607.44
JWCH/SCHARP - Lynwood	0.6%	0.0%	0.02	0.00	0.0%	0.0%	0.00	0.00	\$220.88	\$213.78
LA LGBT Center	0.6%	0.6%	0.02	0.15	0.6%	1.8%	0.01	0.04	\$323.24	\$573.98
SSG – HOPICS	0.4%	1.3%	0.01	0.08	0.9%	0.0%	0.01	0.00	\$223.46	\$384.67
Saban Community Clinic	0.0%	1.4%	0.00	0.12	2.8%	1.4%	0.03	0.04	\$200.36	\$515.12
Overall (Sum or Mean)	1.7%	1.6%	0.20	0.22	4.5%	1.8%	0.06	0.03	\$623.24	\$683.09

Note: Psychiatric and emergency services are from EpisodeList in the LACDMH Integrated System.

# Appendix B: Implementation Evaluation using the Integrated Treatment Tool (ITT), 1-Year Follow Up IMHT

The following domains and anchor statements derived from the ITT were assessed for IMHT programs. All domains, except for integrated approach, consist of dichotomized statements that are either true or not true of each program.

#### 1. Integrated approach:

- a. FQHC clinical staff (RN, MD) participate in IMHT team meetings at least weekly.
- b. FQHC site coordinates with IMHT staff (protocols in place for ongoing communication around labs, tests, etc.).
- c. FQHC site makes reasonable accommodations to serve IMHT clients (clients are seen on-site if need be and receptive to IMHT staff request).
- d. DMH contracted partner and FQHC have expanded relationship beyond IMHT program.

#### 2. Policies and procedures:

- a. Program has integrated care program specific written policies.
- b. Program has a mechanism/method for updating these policies.
- c. Program uses these programs to orient new staff.

#### 3. Peer support:

- a. Program has a peer provider/role.
- b. Peer support personnel are members of the multi-disciplinary health care team (i.e. participate in treatment team meetings, are included in interdisciplinary communications, participate in treatment plan development and support, document their interactions in the integrated health record).

#### 4. Assessing Effectiveness:

- a. Data is shared with clients during treatment.
- b. Data is reviewed by individual clinicians for treatment.
- c. Data is reviewed during interdisciplinary team meetings.
- d. Data is reviewed by program staff to guide program development.

#### 5. Interdisciplinary communication:

- a. There is one central medical record (either electronically or paper).
- b. Staff have access to all medical records (even if there are separate systems).
- c. Medical records (whether electronic, multiple systems, or paper) are utilized during team meetings.

#### 6. Integrated health information/technology:

- a. Program uses integrated (not multiple) HIT medical records.
- b. All clinical staff has access to information contained in electronic records (even if multiple systems) in real time.
- c. Electronic records (even if multiple) are used to generate clinical registries to manage population health/program development.

#### 7. Organization-wide training:

- a. Trainings include mental health, substance use, other health conditions, and interactions amongst them all
- b. All staff are trained on integrated care as part of orientation.
- c. Organization tracks/monitors integrated care trainings.

#### 8. Medication reconciliation:

- a. Prescribers communicate with one another or are updated about prescribing decisions made by another prescriber in real time.
- b. Program has a method for medication reconciliation.
- c. Reconciliation occurs on a regular basis.

#### ISM

The following domains and anchor statements derived from the ITT were assessed for ISM programs. All domains, except for integrated approach, consist of dichotomized statements that are either true or not true of each program.

- 1. Integrated approach [choose one]
  - a. All three service domains are addressed by different clinicians (typically from different entities/organizations); information-sharing only occurs via occasional release of information where assessments, chart notes, and/or treatment summaries are sent between entities (no integration/separate treatment).
  - b. Though still separate entities, organizations, or departments, direct communication about issues and treatments occurs; such communication is sporadic or unstructured (parallel treatment/partnership)
  - c. Though still separate entities, organizations, or departments, clinicians have a specific protocol for ongoing communication with other providers about all shared patients (parallel treatment/partnership or co-located).
  - d. Two of the three domains of care are at the same entity/organization in the same physical location and intervention planning and services involve coordination among the providers (co-located or integrated).
  - e. All three domains of care are at the same entity/organization in the same physical location and intervention planning and services involve coordination among the providers (integrated).
- 2. Policies and procedures:
  - a. Program has integrated care program specific written policies.
  - b. Program has a mechanism/method for updating these policies.
  - c. Program uses these programs to orient new staff.
- 3. Peer support:
  - a. Program has a peer provider/role.
  - b. Peer support personnel are members of the multi-disciplinary health care team (i.e. participate in treatment team meetings, are included in interdisciplinary communications, participate in treatment plan development and support, document their interactions in the integrated health record).
- 4. Care coordination program had or developed protocols specifically for the following:
  - a. Lab and test tracking
  - b. Referral tracking
  - c. Medication reconciliation
  - d. Reminder system
  - e. Transitions between levels of care
- 5. Assessing Effectiveness:
  - a. Data is shared with clients during treatment.
  - b. Data is reviewed by individual clinicians for treatment.
  - c. Data is reviewed during interdisciplinary team meetings.
  - d. Data is reviewed by program staff to guide program development.
- 6. Interdisciplinary communication:
  - a. There is one central medical record (either electronically or paper).
  - b. Staff have access to all medical records (even if there are separate systems).
  - c. Medical records (whether electronic, multiple systems, or paper) are utilized during team meetings.
- 7. Integrated health information/technology:
  - a. Program uses integrated (not multiple) HIT medical records.
  - b. All clinical staff has access to information contained with electronic records (even if multiple systems) in real time.
  - c. Electronic records (even if multiple) are used to generate clinical registries to manage population health/program development.

- d. Medical records/assessments are utilized during team meetings.
- 8. Organization-wide training:
  - a. Trainings include mental health, substance use, other health conditions, and interactions amongst them all.
  - b. All staff are trained on integrated care as part of orientation.
  - c. Organization tracks/monitors integrated care trainings.

### **ICM Programs**

The following seven domains and anchor statements derived from the ITT were assessed for ICM programs. All domains consist of dichotomized statements that are either true or not true of each program.

- 1. Policies and procedures:
  - a. Program has integrated care program specific written policies.
  - b. Program has a mechanism/method for updating these policies.
  - c. Program uses these programs to orient new staff.
- 2. Peer support:
  - a. Program has a peer provider/role.
  - b. Peer support personnel are members of the multi-disciplinary health care team (i.e. participate in treatment team meetings, are included in interdisciplinary communications, participate in treatment plan development and support, document their interactions in the integrated health record).
- 3. Care coordination program had or developed protocols specifically for the following:
  - a. Lab and test tracking
  - b. Referral tracking
  - c. Medication reconciliation
  - d. Reminder system
  - e. Transitions between levels of care
- 4. Assessing Effectiveness:
  - a. Data is shared with clients during treatment.
  - b. Data is reviewed by individual clinicians for treatment.
  - c. Data is reviewed during interdisciplinary team meetings.
  - d. Data is reviewed by program staff to guide program development.
- 5. Interdisciplinary communication:
  - a. There is one central medical record (either electronically or paper).
  - b. Staff have access to all medical records (even if there are separate systems).
  - c. Medical records (whether electronic, multiple systems, or paper) are utilized during team meetings.
- 6. Integrated health information/technology:
  - a. Program uses integrated (not multiple) HIT medical records.
  - b. All clinical staff has access to information contained with electronic records (even if multiple systems) in real time.
  - c. Electronic records (even if multiple) are used to generate clinical registries to manage population health/program development.
  - d. Medical records/assessments are utilized during team meetings.
- 7. Organization-wide training:
  - a. Trainings include mental health, substance use, other health conditions, and interactions amongst them all.
  - b. All staff are trained on integrated care as part of orientation.
  - c. Organization tracks/monitors integrated care trainings.

## **Appendix C: Provider Level Outcome Comparisons IMHT**

Green text in the tables below indicates a statistically significant improvement on the measure. Red text indicates a statistically significant decline on the outcome.

Mental Health Status – IMR Recovery Subscale								
	Mean Scores	Assessment	MID	Mean Scores Assessment		MID		
Program Name	1 v	1 vs. 5		5 vs. 9		5 vs. 9		
Exodus Recovery, Inc.	3.53 (N=74)	2.14 (N=74)	97.3%	2.17 (N=30)	1.93 (N=30)	50.0%		
JWCH/SCHARP/BHS	3.38 (N=25)	2.74 (N=25)	68.0%	2.82 (N=11)	2.67 (N=11)	36.4%		
MHALA-HIP	3.72 (N=74)	2.90 (N=74)	79.7%	2.78 (N=15)	2.71 (N=15)	33.3%		
St. Joseph's Center/OPCC	3.75 (N=40)	3.12 (N=40)	77.5%	3.27 (N=23)	2.83 (N=23)	47.8%		
Step UP On Second/Project 180	3.64 (N=50)	3.32 (N=50)	50.0%	2.27 (N=3)	3.07 (N=3)	0.0%		

Mental Health Status – IMR Management Subscale								
	Mean Scores	Assessment	MID	Mean Scores Assessment		MID		
Program Name	1 v	1 vs. 5		5 vs. 9		5 vs. 9		
Exodus Recovery, Inc.	3.85 (N=74)	2.56 (N=74)	90.5%	2.62 (N=30)	2.00 (N=30)	73.3%		
JWCH/SCHARP/BHS	4.31 (N=25)	3.41 (N=25)	72.0%	3.59 (N=11)	3.32 (N=11)	36.4%		
MHALA-HIP	4.38 (N=74)	3.41 (N=74)	73.0%	3.15 (N=15)	3.48 (N=15)	26.7%		
St. Joseph's Center/OPCC	4.31 (N=40)	3.66 (N=40)	55.0%	4.24 (N=23)	3.28 (N=23)	60.9%		
Step UP On Second/Project 180	3.92 (N=50)	3.61 (N=50)	50.0%	3.58 (N=3)	4.00 (N=3)	33.3%		

Mental Health Status – Milestones of Recovery									
	Mean Scores	Mean Scores Assessment		Mean Scores Assessment		MID			
Program Name	1 v	1 vs. 5		5 vs. 9		5 vs. 9			
Exodus Recovery, Inc.	3.07 (N=74)	5.12 (N=74)	90.5%	5.03 (N=29)	5.79 (N=29)	62.1%			
JWCH/SCHARP/BHS	3.64 (N=14)	4.93 (N=14)	78.6%	5.90 (N=10)	6.10 (N=10)	30.0%			
MHALA-HIP	3.34 (N=76)	4.87 (N=76)	75.0%	5.20 (N=15)	5.20 (N=15)	26.7%			
St. Joseph's Center/OPCC	3.46 (N=39)	4.41 (N=39)	59.0%	4.27 (N=22)	4.77 (N=22)	40.9%			
Step UP On Second/Project 180	3.67 (N=48)	4.27 (N=48)	52.1%	4.67 (N=3)	5.00 (N=3)	66.7%			

Mental Health Status – PROMIS Global Health Mental Health Subscale								
	Mean Scores	Mean Scores Assessment		Mean Scores Assessment		MID		
Program Name	1 v	1 vs. 5		5 vs. 9		5 vs. 9		
Exodus Recovery, Inc.	4.06 (N=4)	2.50 (N=4)	100.0%	3.88 (N=22)	2.94 (N=22)	63.6%		
JWCH/SCHARP/BHS	3.60 (N=8)	3.69 (N=8)	50.0%	3.48 (N=4)	3.75 (N=4)	25.0%		
MHALA-HIP	4.01 (N=65)	3.39 (N=65)	66.2%	3.39 (N=13)	3.85 (N=13)	0.0%		
St. Joseph's Center/OPCC	4.03 (N=21)	3.50 (N=21)	52.4%	3.38 (N=5)	2.95 (N=5)	40.0%		
Step UP On Second/Project 180	3.62 (N=31)	3.43 (N=31)	48.4%	-	-	-		

Physical Health Status – PROMIS Global Health Physical Health Subscale								
	Mean Scores	Mean Scores Assessment		Mean Scores Assessment		MID		
Program Name	1 v	1 vs. 5		5 vs. 9		5 vs. 9		
Exodus Recovery, Inc.	3.50 (N=4)	2.56 (N=4)	75.0%	3.35 (N=22)	2.71 (N=22)	63.6%		
JWCH/SCHARP/BHS	3.02 (N=8)	2.94 (N=8)	50.0%	3.13 (N=4)	3.25 (N=4)	25.0%		
MHALA-HIP	3.61 (N=65)	3.04 (N=65)	63.1%	2.92 (N=13)	3.37 (N=13)	0.0%		
St. Joseph's Center/OPCC	3.42 (N=21)	3.07 (N=21)	57.1%	2.90 (N=5)	2.60 (N=5)	60.0%		
Step UP On Second/Project 180	3.04 (N=31)	2.87 (N=31)	25.8%	-	-	-		

Physical Health Status - Body Mass Index (BMI) Categorization									
	Percentage of clients with		MID	Percentage of clients with		MID			
	normal	weight	1 vs. 5	normal weight		5 vs. 9			
Program Name	Assessme	ent 1 vs. 5		Assessme					
Exodus Recovery, Inc.	32.4% (N=68)	29.4% (N=68)	33.9%	20.0% (N=25)	24.0% (N=25)	24.0%			
JWCH/SCHARP/BHS	37.5% (N=16)	25.0% (N=16)	43.8%	-	-	-			
MHALA-HIP	45.6% (N=57)	33.3% (N=57)	35.1%	37.5% (N=8)	50.0% (N=8)	62.5%			
St. Joseph's Center/OPCC	45.0% (N=20)	50.0% (N=20)	55.0%	62.5% (N=8)	50.0% (N=8)	50.0%			
Step UP On Second/Project 180	62.5% (N=16)	50.0% (N=16)	50.0%	-	-	-			

Footnote on MID: MID is the percentage of clients who made clinically meaningful improvements or maintained a healthy BMI

Physical Health Status - Blood Pressure Categorization									
	Percentage of clients with		MID	Percentage of clients with		MID			
	normal blo	normal blood pressure		normal blood pressure		5 vs. 9			
Program Name	Assessment 1 vs. 5			Assessment 5 vs. 9					
Exodus Recovery, Inc.	36.4% (N=77)	24.7% (N=77)	41.6%	26.7% (N=30)	30.0% (N=30)	43.3%			
JWCH/SCHARP/BHS	40.0% (N=10)	20.0% (N=10)	20.0%	-	-	-			
MHALA-HIP	36.5% (N=63)	30.2% (N=63)	38.0%	30.0% (N=10)	40.0% (N=10)	60.0%			
St. Joseph's Center/OPCC	37.5% (N=40)	30.0% (N=40)	40.0%	31.6% (N=19)	47.4% (N=19)	47.4%			
Step UP On Second/Project 180	21.1% (N=19)	15.8% (N=19)	26.3%	-	-	-			

Footnote: MID is the percentage of clients who made clinically meaningful improvements or maintained a healthy blood pressure

Patterns of Substance Use – IMR Substance Use Subscale								
	Mean Scores	Mean Scores Assessment		Mean Scores Assessment		MID		
Program Name	1 vs. 5		1 vs. 5	5 vs. 9		5 vs. 9		
Exodus Recovery, Inc.	2.85 (N=74)	2.20 (N=74)	48.6%	2.27 (N=30)	1.83 (N=30)	40.0%		
JWCH/SCHARP/BHS	3.48 (N=25)	2.92 (N=25)	48.0%	3.00 (N=11)	2.45 (N=11)	45.5%		
MHALA-HIP	3.12 (N=74)	2.95 (N=74)	35.1%	2.33 (N=15)	2.87 (N=15)	13.3%		
St. Joseph's Center/OPCC	3.37 (N=41)	2.73 (N=41)	43.9%	3.83 (N=23)	3.04 (N=23)	43.5%		
Step UP On Second/Project 180	3.66 (N=50)	3.36 (N=50)	38.0%	-	-	-		

Patterns of Substance Use – PROMIS-Derived Substance Use Scale								
	Mean Scores	Mean Scores Assessment		Mean Scores Assessment		MID		
Program Name	1 v	1 vs. 5		5 vs. 9		5 vs. 9		
Exodus Recovery, Inc.	2.31 (N=4)	2.00 (N=4)	75.0%	3.34 (N=11)	2.24 (N=11)	81.8%		
JWCH/SCHARP/BHS	3.55 (N=5)	1.65 (N=5)	80.0%	-	-	-		
MHALA-HIP	2.90 (N=44)	2.73 (N=44)	45.5%	2.38 (N=10)	2.08 (N=10)	40.0%		
St. Joseph's Center/OPCC	2.66 (N=15)	2.30 (N=15)	66.7%	-	-	-		
Step UP On Second/Project 180	2.54 (N=21)	2.19 (N=21)	52.4%	-	-	-		

Footnote: MID is the percentage of clients who made clinically meaningful improvements or maintained a healthy score

Homelessness								
	Mean Num	Mean Number of Days		Mean Number of Days		Maintained		
Program Name	Assessment 1 vs. 5		1 vs. 5	Assessment 5 vs. 9		housing 1 yr		
Exodus Recovery, Inc.	173 (N=63)	27 (N=63)	87.3%	16 (N=30)	26 (N=30)	90.2% (N=61)		
JWCH/SCHARP/BHS	181 (N=17)	94 (N=17)	47.1%	-	-	68.8% (N=32)		
MHALA-HIP	170 (N=71)	45 (N=71)	74.6%	11 (N=14)	13 (N=14)	69.4% (N=62)		
St. Joseph's Center/OPCC	172 (N=42)	104 (N=42)	45.2%	143 (N=12)	105 (N=12)	62.2% (N=45)		
Step UP On Second/Project 180	-	-	-	-	-	56.1% (N=41)		

Footnote: MID is the percentage of clients who reduced the number of days spent homeless.

Emergency Room									
	Percentage of	clients with no	MID	Percentage of clients with no		MID			
	ER visits in p	ast 6 months	1 vs. 5	ER visits in past 6 months		5 vs. 9			
Program Name	Assessme	ent 1 vs. 5		Assessme					
Exodus Recovery, Inc.	33.3% (N=3)	100.0% (N=3)	100.0%	73.9% (N=23)	91.3% (N=23)	91.3%			
JWCH/SCHARP/BHS	50.0% (N=8)	87.5% (N=8)	87.5%	100.0% (N=3)	66.7% (N=3)	66.7%			
MHALA-HIP	31.3% (N=64)	65.6% (N=64)	73.5%	69.2% (N=13)	69.2% (N=13)	69.2%			
St. Joseph's Center/OPCC	33.3% (N=21)	61.9% (N=21)	61.9%	80.0% (N=5)	60.0% (N=5)	60.0%			
Step UP On Second/Project 180	51.6% (N=31)	74.2% (N=31)	77.4%	-	-	-			

Footnote: MID is the percentage of clients who made clinically meaningful improvement or maintained no ER visits.

Psychiatric Hospitalizations								
	Percentage of clients with no		MID	Percentage of clients with no		MID		
	hospitalizatio	ns in past year	1 vs. 5	hospitalization	is in past year	5 vs. 9		
Program Name	Assessm	ent 1 vs. 5		Assessme				
Exodus Recovery, Inc.	21.6% (N=74)	82.4% (N=74)	94.6%	83.3% (N=30)	93.3% (N=30)	96.7%		
JWCH/SCHARP/BHS	88.0% (N=25)	92.0% (N=25)	96.0%	100.0% (N=11)	90.9% (N=11)	90.9%		
MHALA-HIP	76.7% (N=73)	82.2% (N=73)	89.0%	86.7% (N=15)	86.7% (N=15)	86.7%		
St. Joseph's Center/OPCC	80.5% (N=41)	82.9% (N=41)	85.3%	95.7% (N=23)	91.3% (N=23)	91.3%		
Step UP On Second/Project 180	85.7% (N=49)	85.7% (N=49)	87.7%	66.7% (N=3)	100.0% (N=3)	100.0%		

Footnote: MID is the percentage of clients who made clinically meaningful improvement or maintained no hospitalizations.

Incarcerations						
	Percentage of clients with no		MID	Percentage of clients with no		MID
	incarceratio	ons in past 6	1 vs. 5	incarcerations in past 6 months		5 vs. 9
Program Name	months Assessment 1 vs. 5			Assessme	nt 5 vs. 9	
Exodus Recovery, Inc.	100.0% (N=3)	66.7% (N=3)	66.7%	100.0% (N=23)	91.3% (N=23)	91.3%
JWCH/SCHARP/BHS	100.0% (N=8)	87.5% (N=8)	87.5%	100.0% (N=3)	100.0% (N=3)	100.0%
MHALA-HIP	76.2% (N=63)	92.1% (N=63)	92.1%	100.0% (N=13)	92.3% (N=13)	92.3%
St. Joseph's Center/OPCC	68.4% (N=19)	78.9% (N=19)	79.0%	80.0% (N=5)	80.0% (N=5)	80.0%
Step UP On Second/Project 180	78.6% (N=28)	78.6% (N=28)	78.6%	-	-	-

Footnote: MID is the percentage of clients who made clinically meaningful improvement or maintained no incarcerations.

## <u>ISM</u>

Green text in the tables below indicates a statistically significant improvement on the measure. Red text indicates a statistically significant decline on the outcome.

Mental Health Status – Overall IMR				
	Mean Scores	Assessment	MID	
Program Name	1 vs	5. 5	1 vs. 5	
Kedren	3.45 (N=10)	2.64 (N=10)	80.0%	
UMMA/Weber	2.97 (N=38)	2.39 (N=38)	68.4%	
UAII	3.11 (N=29)	2.63 (N=29)	55.2%	
APHCV/Pacific Clinics	3.24 (N=22)	2.43 (N=22)	81.8%	
Korean ISM programs	3.49 (N=14)	2.45 (N=14)	85.7%	
PACS	2.95 (N=3)	2.67 (N=3)	33.3%	
SSG-API Alliance	3.34 (N=4)	2.26 (N=4)	100.0%	
Didi Hirsch	3.38 (N=37)	2.53 (N=37)	86.5%	
IMCES	3.34 (N=11)	2.43 (N=11)	72.7%	
Jewish Family Services	3.48 (N=21)	2.78 (N=21)	76.2%	
Alma Family Services	3.17 (N=17)	2.32 (N=17)	88.2%	
LACGC/Barbour & Floyd	3.23 (N=25)	2.37 (N=25)	80.0%	
St Joseph Center	3.26 (N=57)	2.68 (N=57)	66.7%	
Tarzana Treatment Center	3.36 (N=53)	2.38 (N=53)	86.8%	

Mental Health Status – IMR Recovery Subscale					
	Mean Scores	Assessment	MID		
Program Name	1 vs	. 5	1 vs. 5		
Kedren	3.98 (N=10)	2.94 (N=10)	80.0%		
UMMA/Weber	3.18 (N=38)	2.52 (N=38)	81.6%		
UAII	3.49 (N=29)	2.88 (N=29)	79.3%		
APHCV/Pacific Clinics	3.97 (N=21)	2.79 (N=21)	90.5%		
Korean ISM programs	4.01 (N=14)	2.43 (N=14)	92.9%		
PACS	3.33 (N=3)	3.07 (N=3)	33.3%		
SSG-API Alliance	4.05 (N=4)	2.40 (N=4)	100.0%		
Didi Hirsch	4.07 (N=37)	2.95 (N=37)	78.4%		
IMCES	3.98 (N=11)	2.67 (N=11)	81.8%		
Jewish Family Services	4.28 (N=21)	3.10 (N=21)	90.5%		
Alma Family Services	3.89 (N=17)	2.67 (N=17)	88.2%		
LACGC/Barbour & Floyd	4.12 (N=25)	2.78 (N=25)	80.0%		
St Joseph Center	3.92 (N=57)	2.97 (N=57)	80.7%		
Tarzana Treatment Center	4.23 (N=53)	2.82 (N=53)	92.5%		

Mental Health Status – IMR Management Subscale				
	Mean Scores	Assessment	MID	
Program Name	1 vs	. 5	1 vs. 5	
Kedren	4.23 (N=10)	3.35 (N=10)	70.0%	
UMMA/Weber	3.66 (N=38)	2.92 (N=38)	63.2%	
UAII	3.84 (N=29)	3.25 (N=29)	48.3%	
APHCV/Pacific Clinics	3.87 (N=22)	3.07 (N=22)	77.3%	
Korean ISM programs	4.39 (N=14)	3.30 (N=14)	78.6%	
PACS	3.75 (N=3)	3.33 (N=3)	66.7%	
SSG-API Alliance	3.44 (N=4)	2.19 (N=4)	75.0%	
Didi Hirsch	4.23 (N=37)	2.96 (N=37)	94.6%	
IMCES	4.20 (N=11)	2.91 (N=11)	72.7%	
Jewish Family Services	4.12 (N=21)	3.36 (N=21)	76.2%	
Alma Family Services	3.75 (N=17)	2.76 (N=17)	64.7%	
LACGC/Barbour & Floyd	3.77 (N=25)	2.49 (N=25)	76.0%	
St Joseph Center	4.34 (N=57)	3.53 (N=57)	63.2%	
Tarzana Treatment Center	3.98 (N=53)	2.67 (N=53)	81.1%	

Mental Health Status – Milestones of Recovery				
	Mean Scores	Assessment	MID	
Program Name	1 vs	s. 5	1 vs. 5	
Kedren	3.90 (N=10)	5.20 (N=10)	70.0%	
UMMA/Weber	4.29 (N=28)	5.75 (N=28)	64.3%	
UAII	4.60 (N=25)	5.44 (N=25)	52.0%	
APHCV/Pacific Clinics	4.78 (N=23)	5.74 (N=23)	69.6%	
Korean ISM programs	4.92 (N=13)	6.08 (N=13)	69.2%	
PACS	5.00 (N=4)	5.25 (N=4)	75.0%	
SSG-API Alliance	5.33 (N=3)	5.67 (N=3)	33.3%	
Didi Hirsch	5.38 (N=32)	6.13 (N=32)	53.1%	
IMCES	4.64 (N=11)	5.82 (N=11)	81.8%	
Jewish Family Services	5.24 (N=21)	5.52 (N=21)	47.6%	
Alma Family Services	3.25 (N=16)	5.94 (N=16)	87.5%	
LACGC/Barbour & Floyd	4.68 (N=22)	5.73 (N=22)	72.7%	
St Joseph Center	4.72 (N=54)	5.30 (N=54)	51.9%	
Tarzana Treatment Center	5.13 (N=47)	6.17 (N=47)	66.0%	

Mental Health Status – PROMIS Global Health Mental Health Subscale				
	Mean Scores	Assessment	MID	
Program Name	1 vs	. 5	1 vs. 5	
Kedren	4.36 (N=9)	4.01 (N=9)	44.4%	
UMMA/Weber	3.57 (N=47)	3.28 (N=47)	38.3%	
UAII	3.76 (N=16)	3.00 (N=16)	62.5%	
APHCV/Pacific Clinics	3.79 (N=21)	3.64 (N=21)	23.8%	
Korean ISM programs	4.48 (N=14)	3.59 (N=14)	78.6%	
PACS	-	-	-	
SSG-API Alliance	3.69 (N=4)	2.94 (N=4)	75.0%	
Didi Hirsch	4.30 (N=33)	3.90 (N=33)	54.5%	
IMCES	4.38 (N=6)	3.29 (N=6)	83.3%	
Jewish Family Services	4.23 (N=13)	4.14 (N=13)	30.8%	
Alma Family Services	3.80 (N=19)	3.04 (N=19)	63.2%	
LACGC/Barbour & Floyd	4.22 (N=15)	3.50 (N=15)	73.3%	
St Joseph Center	3.81 (N=55)	3.39 (N=55)	56.4%	
Tarzana Treatment Center	3.78 (N=24)	3.31 (N=24)	45.8%	

Physical Health Status – PROMIS Global Health Physical Health Subscale				
	Mean Scores	Assessment	MID	
Program Name	1 vs	. 5	1 vs. 5	
Kedren	3.44 (N=9)	3.58 (N=9)	11.1%	
UMMA/Weber	3.20 (N=47)	2.85 (N=47)	48.9%	
UAII	3.06 (N=16)	2.83 (N=16)	50.0%	
APHCV/Pacific Clinics	3.30 (N=21)	3.23 (N=21)	19.0%	
Korean ISM programs	3.61 (N=14)	3.10 (N=14)	57.1%	
PACS	-	-	-	
SSG-API Alliance	2.94 (N=4)	2.75 (N=4)	50.0%	
Didi Hirsch	3.78 (N=33)	3.76 (N=33)	27.3%	
IMCES	3.29 (N=6)	2.42 (N=6)	66.7%	
Jewish Family Services	3.28 (N=13)	3.37 (N=13)	30.8%	
Alma Family Services	3.22 (N=19)	2.95 (N=19)	42.1%	
LACGC/Barbour & Floyd	3.73 (N=15)	3.17 (N=15)	66.7%	
St Joseph Center	3.05 (N=55)	2.88 (N=55)	30.9%	
Tarzana Treatment Center	3.06 (N=24)	2.94 (N=24)	33.3%	

Physical Health Status – Body Mass Index (BMI) Categorization				
	Percentage o	f clients with		
	normal	weight	MID	
Program Name	Assessme	nt 1 vs. 5	1 vs. 5	
Kedren	-	-	-	
UMMA/Weber	20.9%(N=43)	14.0%(N=43)	18.7%	
UAII	16.7%(N=6)	0.0%(N=6)	0.0%	
APHCV/Pacific Clinics	45.5%(N=22)	31.8%(N=22)	31.8%	
Korean ISM programs	42.9%(N=7)	57.1%(N=7)	57.2%	
PACS	57.1%(N=21)	57.1%(N=21)	66.7%	
SSG-API Alliance	-	-	-	
Didi Hirsch	12.5%(N=32)	18.8%(N=32)	21.9%	
IMCES	71.4%(N=7)	28.6%(N=7)	28.6%	
Jewish Family Services	31.6%(N=19)	26.3%(N=19)	36.8%	
Alma Family Services	5.0%(N=20)	10.0%(N=20)	20.0%	
LACGC/Barbour & Floyd	6.7%(N=15)	6.7%(N=15)	13.4%	
St Joseph Center	14.3%(N=7)	28.6%(N=7)	28.6%	
Tarzana Treatment Center	30.2%(N=43)	23.3%(N=43)	23.2%	

Footnote: MID is the percentage of clients who made clinically meaningful improvements or maintained a healthy BMI

Physical Health Status – Blood Pressure Categorization				
	Percentage o	Percentage of clients with		
	normal bloo	od pressure	MID	
Program Name	Assessme	nt 1 vs. 5	1 vs. 5	
Kedren	-	-	-	
UMMA/Weber	20.9%(N=43)	23.3%(N=43)	44.2%	
UAII	50.0%(N=8)	50.0%(N=8)	62.5%	
APHCV/Pacific Clinics	45.5%(N=22)	45.5%(N=22)	50.0%	
Korean ISM programs	71.4%(N=7)	57.1%(N=7)	71.5%	
PACS	41.7%(N=24)	41.7%(N=24)	50.0%	
SSG-API Alliance	-	-	-	
Didi Hirsch	34.4%(N=32)	31.3%(N=32)	37.5%	
IMCES	25.0%(N=4)	50.0%(N=4)	50.0%	
Jewish Family Services	27.3%(N=22)	45.5%(N=22)	54.5%	
Alma Family Services	40.0%(N=20)	50.0%(N=20)	50.0%	
LACGC/Barbour & Floyd	31.3%(N=16)	31.3%(N=16)	50.1%	
St Joseph Center	50.0%(N=6)	33.3%(N=6)	50.0%	
Tarzana Treatment Center	37.5%(N=40)	35.0%(N=40)	37.5%	

Footnote: MID is the percentage of clients who made clinically meaningful improvements or maintained a healthy blood pressure

Patterns of Substance Use – IMR Substance Use Subscale				
	Mean Scores	Assessment	MID	
Program Name	1 vs	. 5	1 vs. 5	
Kedren	1.60 (N=10)	1.20 (N=10)	30.0%	
UMMA/Weber	1.82 (N=38)	1.26 (N=38)	28.9%	
UAII	2.00 (N=29)	1.66 (N=29)	27.6%	
APHCV/Pacific Clinics	1.00 (N=20)	1.00 (N=20)	0.0%	
Korean ISM programs	2.43 (N=14)	1.57 (N=14)	35.7%	
PACS	1.00 (N=3)	1.00 (N=3)	0.0%	
SSG-API Alliance	2.50 (N=4)	1.75 (N=4)	25.0%	
Didi Hirsch	1.22 (N=37)	1.22 (N=37)	5.4%	
IMCES	1.18 (N=11)	1.09 (N=11)	9.1%	
Jewish Family Services	1.52 (N=21)	1.38 (N=21)	14.3%	
Alma Family Services	1.65 (N=17)	1.35 (N=17)	11.8%	
LACGC/Barbour & Floyd	1.24 (N=25)	1.12 (N=25)	4.0%	
St Joseph Center	1.26 (N=57)	1.25 (N=57)	3.5%	
Tarzana Treatment Center	1.36 (N=53)	1.21 (N=53)	5.7%	

Patterns of Substance Use – PROMIS-Derived Substance Use Scale				
	Mean Scores	Assessment	MID	
Program Name	1 vs	. 5	1 vs. 5	
Kedren	1.84 (N=5)	2.37 (N=5)	60.0%	
UMMA/Weber	1.99 (N=23)	1.80 (N=23)	65.2%	
UAII	2.10 (N=4)	1.54 (N=4)	100.0%	
APHCV/Pacific Clinics	-	-	-	
Korean ISM programs	3.14 (N=3)	1.86 (N=3)	66.6%	
PACS	-	-	-	
SSG-API Alliance	-	-	-	
Didi Hirsch	2.20 (N=7)	1.76 (N=7)	71.5%	
IMCES	-	-	-	
Jewish Family Services	2.07 (N=4)	1.90 (N=4)	75.0%	
Alma Family Services	1.95 (N=5)	1.74 (N=5)	60.0%	
LACGC/Barbour & Floyd	-	-	-	
St Joseph Center	1.66 (N=6)	1.68 (N=6)	50.0%	
Tarzana Treatment Center	-	-	-	

Footnote: MID is the percentage of clients who made clinically meaningful improvements or maintained a healthy score

Stigma				
	Mean Scores	Assessment	MID	
Program Name	1 vs	. 5	1 vs. 5	
Kedren	2.04 (N=5)	2.40 (N=5)	0.0%	
UMMA/Weber	2.22 (N=13)	2.14 (N=13)	30.8%	
UAII	1.94 (N=7)	1.73 (N=7)	57.1%	
APHCV/Pacific Clinics	2.62 (N=6)	2.62 (N=6)	33.3%	
Korean ISM programs	2.37 (N=6)	2.08 (N=6)	33.3%	
PACS	-	-	-	
SSG-API Alliance	2.23 (N=3)	2.13 (N=3)	33.3%	
Didi Hirsch	2.51 (N=12)	2.17 (N=12)	50.0%	
IMCES	-	-	-	
Jewish Family Services	-	-	-	
Alma Family Services	2.28 (N=8)	2.18 (N=8)	37.5%	
LACGC/Barbour & Floyd	2.23 (N=7)	2.20 (N=7)	14.3%	
St Joseph Center	2.08 (N=20)	1.82 (N=20)	50.0%	
Tarzana Treatment Center	2.28 (N=6)	2.22 (N=6)	33.3%	

Footnote: MID is the percentage of clients who made clinically meaningful improvement or maintained no stigma.

Social Support – How much are people like family, friends, boyfriend/girlfriend, and other people who are important to your client (outside the mental health agency) involved in his/her mental health treatment?						
	Mean Scores	Assessment	MID			
Program Name	1 vs	. 5	1 vs. 5			
Kedren	4.22 (N=9)	3.11 (N=9)	77.8%			
UMMA/Weber	3.97 (N=37)	3.59 (N=37)	40.5%			
UAII	3.41 (N=29)	3.17 (N=29)	37.9%			
APHCV/Pacific Clinics	3.32 (N=22)	2.73 (N=22)	54.5%			
Korean ISM programs	3.86 (N=14)	3.43 (N=14)	50.0%			
PACS	3.67 (N=3)	3.67 (N=3)	33.3%			
SSG-API Alliance	3.25 (N=4)	3.25 (N=4)	25.0%			
Didi Hirsch	3.22 (N=37)	3.24 (N=37)	27.0%			
IMCES	3.45 (N=11)	3.36 (N=11)	36.4%			
Jewish Family Services	4.00 (N=20)	3.80 (N=20)	20.0%			
Alma Family Services	3.59 (N=17)	2.53 (N=17)	58.8%			
LACGC/Barbour & Floyd	4.04 (N=25)	3.68 (N=25)	28.0%			
St Joseph Center	3.75 (N=57)	3.44 (N=57)	42.1%			
Tarzana Treatment Center	4.02 (N=53)	3.36 (N=53)	50.9%			

Footnote: MID is the percentage of clients who made clinically meaningful improvement or maintained high family involvement.

Social Support – In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)?								
	Mean Scores	Assessment	MID					
Program Name	1 vs	. 5	1 vs. 5					
Kedren	3.20 (N=10)	2.50 (N=10)	60.0%					
UMMA/Weber	2.86 (N=37)	2.78 (N=37)	40.5%					
UAII	2.86 (N=28)	2.75 (N=28)	35.7%					
APHCV/Pacific Clinics	3.73 (N=22)	2.32 (N=22)	86.4%					
Korean ISM programs	3.93 (N=14)	2.71 (N=14)	78.6%					
PACS	3.33 (N=3)	3.00 (N=3)	66.7%					
SSG-API Alliance	3.25 (N=4)	2.00 (N=4)	75.0%					
Didi Hirsch	3.76 (N=37)	3.00 (N=37)	64.9%					
IMCES	3.91 (N=11)	2.82 (N=11)	72.7%					
Jewish Family Services	3.81 (N=21)	3.14 (N=21)	47.6%					
Alma Family Services	3.65 (N=17)	3.00 (N=17)	58.8%					
LACGC/Barbour & Floyd	3.96 (N=25)	2.96 (N=25)	64.0%					
St Joseph Center	2.68 (N=56)	2.50 (N=56)	37.5%					
Tarzana Treatment Center	3.63 (N=52)	2.56 (N=52)	65.4%					

Footnote: MID is the percentage of clients who made clinically meaningful improvement or maintained frequent contact with friends.

## **ICM**

Green text in the tables below indicates a statistically significant improvement on the measure. Red text indicates a statistically significant decline on the outcome.

Mental Health Status – Overall IMR Scores								
	Mean Scores	Assessment 1	MID	Mean Scores	Assessment 1	MID		
Program Name	vs. 5		1 vs. 5	vs.	. 7	1 vs. 7		
Exodus Recovery, Inc.	3.40(N=115)	2.62(N=115)	78.3%	3.39 (N=65)	2.56 (N=65)	80.0%		
JWCH/SCHARP - Bellflower	3.54 (N=36)	2.25 (N=36)	83.3%	3.52 (N=21)	2.29 (N=21)	85.7%		
JWCH/SCHARP - Lynwood	3.40 (N=22)	2.16 (N=22)	100%	3.44 (N=15)	1.83 (N=15)	100%		
Los Angeles LGBT Center	2.88(N=38)	2.41 (N=38)	65.8%	3.14 (N=9)	2.31 (N=9)	77.8%		
Saban Community Clinic	3.21 (N=32) 2.42 (N=32)		84.4%	3.18 (N=11)	2.55 (N=11)	63.6%		
SSG-HOPICS	3.12 (N=5)	2.58 (N=5)	60.0%	-	-	-		

Mental Health Status – IMR Recovery Subscale								
	Mean Scores	Assessment 1	MID	Mean Scores	Assessment 1	MID		
Program Name	VS	vs. 5		VS.	. 7	1 vs. 7		
Exodus Recovery, Inc.	3.81(N=115)	3.13(N=115)	66.1%	3.79 (N=65)	3.13(N=65)	70.8%		
JWCH/SCHARP - Bellflower	3.92 (N=36)	2.28 (N=36)	83.3%	3.97 (N=21)	2.49(N=21)	71.4%		
JWCH/SCHARP - Lynwood	4.20 (N=22)	2.39 (N=22)	95.5%	4.33 (N=15)	1.97(N=15)	100.0%		
Los Angeles LGBT Center	3.08 (N=38)	2.57 (N=38)	52.6%	3.35 (N=10)	2.48(N=10)	70.0%		
Saban Community Clinic	3.62 (N=32)	2.54 (N=32)	81.3%	3.55 (N=11)	2.60(N=11)	81.8%		
SSG-HOPICS	3.52 (N=5)	2.88 (N=5)	80.0%	-	-	-		

Mental Health Status – IMR Management Subscale									
	Mean Scores	Assessment 1	MID	Mean Scores	Assessment 1	MID			
Program Name	vs. 5		1 vs. 5	vs.	7	1 vs. 7			
Exodus Recovery, Inc.	4.05(N=115)	2.49(N=115)	89.6%	4.02 (N=65)	2.27(N=65)	90.8%			
JWCH/SCHARP - Bellflower	4.52 (N=36)	2.87 (N=36)	83.3%	4.52 (N=21)	3.00(N=21)	76.2%			
JWCH/SCHARP - Lynwood	4.22 (N=22)	2.81 (N=22)	81.8%	4.35 (N=15)	2.27(N=15)	100.0%			
Los Angeles LGBT Center	3.58 (N=38)	3.04 (N=38)	63.2%	4.02 (N=10)	2.78(N=10)	80.0%			
Saban Community Clinic	4.09 (N=32) 2.84 (N=32)		90.6%	4.18 (N=11)	3.32(N=11)	63.6%			
SSG-HOPICS	3.60 (N=5)	3.05 (N=5)	60.0%	-	-	-			

Mental Health Status – Milestones of Recovery								
	Mean Scores	Assessment	MID	Mean Scores	Assessment	MID		
Program Name	1 vs. 5		1 vs. 5	1 vs. 7		1 vs. 7		
Exodus Recovery, Inc.	4.96 (N=99)	5.96 (N=99)	69.7%	4.89 (N=55)	5.98 (N=55)	69.1%		
JWCH/SCHARP - Bellflower	4.14 (N=35) 6.00 (N=35)		77.1%	4.45 (N=20)	6.00 (N=20)	75.0%		
JWCH/SCHARP - Lynwood	5.20 (N=20)	6.00 (N=20)	35.0%	4.92 (N=13)	6.62 (N=13)	84.6%		
Los Angeles LGBT Center	5.36 (N=14)	5.71 (N=14)	50.0%	4.75 (N=4)	6.00 (N=4)	100.0%		
Saban Community Clinic	4.70 (N=30) 6.10 (N=30)		76.7%	4.50 (N=10)	5.70 (N=10)	60.0%		
SSG-HOPICS	3.85 (N=13)	5.38 (N=13)	69.2%	3.20 (N=5)	6.40 (N=5)	100.0%		

Mental Health Status – PROMIS Global Health Mental Health Subscale								
	Mean Scores	Mean Scores Assessment		Mean Scores	Assessment	MID		
Program Name	1 v	1 vs. 5		1 v	s. 7	1 vs. 7		
Exodus Recovery, Inc.	4.29 (N=32)	3.91(N=32)	53.1%	4.39 (N=11)	4.14 (N=11)	63.6%		
JWCH/SCHARP - Bellflower	3.91 (N=41)	3.67(N=41)	31.7%	3.97 (N=28)	3.70(N=28)	46.4%		
JWCH/SCHARP - Lynwood	4.09 (N=37)	3.36(N=37)	70.3%	4.18 (N=24)	3.44(N=24)	75.0%		
Los Angeles LGBT Center	4.15 (N=43)	3.76(N=43)	51.2%	4.29 (N=14)	3.71(N=14)	57.1%		
Saban Community Clinic	3.89 (N=22) 3.63 (N=22)		40.9%	4.13 (N=12)	3.98 (N=12)	41.7%		
SSG-HOPICS	2.83 (N=3)	3.00 (N=3)	33.3%	-	-	-		

Physical Health Status – PROMIS Global Health Physical Health Subscale								
	Mean Scores	Assessment	MID	Mean Scores	Assessment	MID		
Program Name	1 vs. 5		1 vs. 5	1 v	s. 7	1 vs. 7		
Exodus Recovery, Inc.	3.55 (N=32)	3.30(N=32)	43.8%	3.44 (N=12)	3.33 (N=12)	41.7%		
JWCH/SCHARP - Bellflower	3.30 (N=41)	3.30 (N=41) 3.29 (N=41)		3.38 (N=28)	3.20 (N=28)	42.9%		
JWCH/SCHARP - Lynwood	3.27 (N=37)	2.77(N=37)	56.8%	3.30 (N=24)	2.94(N=24)	41.7%		
Los Angeles LGBT Center	3.13 (N=43)	2.80(N=43)	46.5%	3.20 (N=14)	3.13 (N=14)	21.4%		
Saban Community Clinic	2.94 (N=22) 2.88 (N=22)		27.3%	3.02 (N=12)	3.29 (N=12)	16.7%		
SSG-HOPICS	2.50 (N=3)	2.58 (N=3)	0.0%	-	-	-		

Physical Health Status – Body Mass Index (BMI) Categorization								
	Percentage o	of clients with		Percentage of	of clients with			
	normal	weight	MID	normal	weight	MID		
Program Name	Assessme	ent 1 vs. 5	1 vs. 5	Assessme	ent 1 vs. 7	1 vs. 7		
Exodus Recovery, Inc.	12.5%(N=104)	10.6%(N=104)	13.4%	7.4%(N=54)	7.4%(N=54)	14.8%		
JWCH/SCHARP - Bellflower	16.4% (N=55)	20.0% (N=55)	21.8%	15.2%(N=33)	15.2%(N=33)	18.2%		
JWCH/SCHARP - Lynwood	12.5% (N=48)	14.6% (N=48)	18.7%	12.1%(N=33)	12.1%(N=33)	15.2%		
Los Angeles LGBT Center	28.6% (N=28)	32.1% (N=28)	35.7%	80.0% (N=5)	60.0% (N=5)	60.0%		
Saban Community Clinic	36.0% (N=75) 33.3% (N=75)		34.7%	32.5%(N=40)	32.5%(N=40)	37.5%		
SSG-HOPICS	-	-	-	-	-	-		

Footnote: MID is the percentage of clients who made clinically meaningful improvements or maintained a healthy BMI.

Physical Health Status – Blood Pressure Categorization								
	Percentage o	f clients with		Percentage of	of clients with			
	normal blo	od pressure	MID	normal blo	od pressure	MID		
Program Name	Assessme	Assessment 1 vs. 5 1 vs. 5 Assessment 1 vs. 7			1 vs. 7			
Exodus Recovery, Inc.	24.1%(N=108)	36.1%(N=108)	58.3%	13.6%(N=59)	35.6%(N=59)	57.6%		
JWCH/SCHARP - Bellflower	30.9% (N=55)	21.8% (N=55)	34.5%	28.1%(N=32)	18.8%(N=32)	31.2%		
JWCH/SCHARP - Lynwood	53.1% (N=49)	63.3% (N=49)	73.5%	54.3%(N=35)	57.1%(N=35)	71.4%		
Los Angeles LGBT Center	14.3% (N=21)	14.3% (N=21)	33.3%	100.0%(N=3)	0.0% (N=3)	0.0%		
Saban Community Clinic	40.8% (N=76) 44.7% (N=76)		53.9%	30.0%(N=40)	47.5%(N=40)	57.5%		
SSG-HOPICS	31.8% (N=22)	27.3% (N=22)	27.2%	-	-	-		

Footnote: MID is the percentage of clients who made clinically meaningful improvements or maintained a healthy blood pressure.

Physical Health Status – Diabetes Categorization								
	Percentage o	of clients with		Percentage of	of clients with			
	normal blo	od pressure	MID	normal blo	od pressure	MID		
Program Name	Assessment 1 vs. 5		1 vs. 5	Assessment 1 vs. 7		1 vs. 7		
Exodus Recovery, Inc.	14.3% (N=35)	22.9% (N=35)	40.0%	11.1%(N=18)	11.1%(N=18)	22.3%		
JWCH/SCHARP - Bellflower	31.3% (N=16)	31.3% (N=16)	43.8%	0.0% (N=7)	0.0% (N=7)	0.0%		
JWCH/SCHARP - Lynwood	15.8% (N=19)	5.3% (N=19)	26.3%	14.3%(N=21)	9.5%(N=21)	9.5%		
Los Angeles LGBT Center	-	-	-	-	-	-		
Saban Community Clinic	43.1% (N=51) 56.9% (N=51)		80.4%	56.5%(N=23)	60.9%(N=23)	82.6%		
SSG-HOPICS	36.8% (N=19)	42.1% (N=19)	57.9%	-	-	-		

Footnote: MID is the percentage of clients who made clinically meaningful improvements or maintained a healthy A1C and glucose levels.

Patterns of Substance Use – IMR Substance Use Subscale								
	Mean Scores	Assessment 1	MID	Mean Scores	Assessment 1	MID		
Program Name	VS	vs. 5		VS.	7	1 vs. 7		
Exodus Recovery, Inc.	2.25(N=114)	1.63(N=114)	33.3%	2.28 (N=64)	1.69 (N=64)	37.5%		
JWCH/SCHARP - Bellflower	2.00 (N=36)	1.47 (N=36)	27.8%	1.80 (N=20)	1.30 (N=20)	30.0%		
JWCH/SCHARP - Lynwood	1.27 (N=22)	1.14 (N=22)	9.1%	1.27 (N=15)	1.07 (N=15)	13.3%		
Los Angeles LGBT Center	1.66 (N=29)	1.45 (N=29)	17.2%	2.13 (N=8)	1.13 (N=8)	37.5%		
Saban Community Clinic	1.66 (N=32)	1.69 (N=32)	15.6%	1.36 (N=11)	1.64 (N=11)	0.0%		
SSG-HOPICS	1.00 (N=4)	1.75 (N=4)	0.0%	-	-	-		

Patterns of Substance Use – PROMIS-Derived Substance Use Scale								
	Mean Scores Assessment		MID	Mean Scores Assessment		MID		
Program Name	1 vs. 5		1 vs. 5	1 vs. 7		1 vs. 7		
Exodus Recovery, Inc.	1.61 (N=8)	1.61 (N=8) 2.17 (N=8)		1.50 (N=3)	1.58 (N=3)	66.6%		
JWCH/SCHARP - Bellflower	2.11 (N=9)	2.00 (N=9)	66.7%	2.46 (N=4)	1.94 (N=4)	75.0%		
JWCH/SCHARP - Lynwood	-	-	-	-	-	-		
Los Angeles LGBT Center	1.88 (N=23)	1.86 (N=23)	73.9%	1.98 (N=7)	1.81 (N=7)	71.4%		
Saban Community Clinic	1.82 (N=6)	2.03 (N=6)	66.7%	2.39 (N=3)	2.64 (N=3)	33.3%		
SSG-HOPICS	-	-	-	-	-	-		

Footnote: MID is the percentage of clients who made clinically meaningful improvements or maintained a healthy score

Emergency Room									
	Percentage o	of clients with		Percentage o					
	no ER visits in past 6 months		MID	no ER visits in past 6 months		MID			
Program Name	Assessme	Assessment 1 vs. 5		Assessme	1 vs. 7				
Exodus Recovery, Inc.	19.4%(N=31)	54.8%(N=31)	67.7%	27.3%(N=11)	63.6%(N=11)	72.8%			
JWCH/SCHARP - Bellflower	57.5%(N=40)	72.5%(N=40)	75.0%	61.5%(N=26)	84.6%(N=26)	84.6%			
JWCH/SCHARP - Lynwood	82.9%(N=35)	82.9%(N=35)	82.8%	77.3%(N=22)	63.6%(N=22)	68.1%			
Los Angeles LGBT Center	69.8%(N=43)	72.1%(N=43)	72.1%	85.7%(N=14)	71.4%(N=14)	78.6%			
Saban Community Clinic	68.4%(N=19)	73.7%(N=19)	73.7%	63.6%(N=11)	90.9%(N=11)	90.9%			
SSG-HOPICS	66.7% (N=3)	66.7% (N=3)	66.6%	-	-	-			

Footnote: MID is the percentage of clients who made clinically meaningful improvement or maintained no ER visits.

Psychiatric Hospitalizations									
	Percentage of	clients with no		Percentage of					
	hospitalizatio	ns in past year	MID	hospitalizatio	MID				
Program Name	Assessme	ent 1 vs. 5	1 vs. 5	Assessment 1 vs. 7		1 vs. 7			
Exodus Recovery, Inc.	86.0%(N=114)	93.9%(N=114)	93.9%	84.6%(N=65)	98.5%(N=65)	100.0%			
JWCH/SCHARP - Bellflower	88.2%(N=34)	91.2%(N=34)	94.1%	90.5%(N=21)	95.2%(N=21)	100.0%			
JWCH/SCHARP - Lynwood	100.0%(N=22)	100.0%(N=22)	100.0%	93.3%(N=15)	100.0%(N=15)	100.0%			
Los Angeles LGBT Center	91.9%(N=37)	94.6%(N=37)	94.6%	100.0%(N=10)	100.0%(N=10)	100.0%			
Saban Community Clinic	96.9%(N=32)	96.9%(N=32)	96.9%	100.0%(N=11)	90.9%(N=11)	90.9%			
SSG-HOPICS	80.0%(N=5)	100.0%(N=5)	100.0%	-	-	-			

Footnote: MID is the percentage of clients who made clinically meaningful improvement or maintained no hospitalizations.

Incarcerations									
	Percentage of	clients with no		Percentage of					
	incarceratio	ons in past 6	MID	incarceration	MID				
Program Name	months Asses	ssment 1 vs. 5	1 vs. 5	months Assessment 1 vs. 7		1 vs. 7			
Exodus Recovery, Inc.	93.5%(N=31)	93.5%(N=31)	93.6%	80.0%(N=10)	90.0%(N=10)	90.0%			
JWCH/SCHARP - Bellflower	100.0%(N=37)	97.3%(N=37)	97.3%	100.0%(N=26)	100.0%(N=26)	100.0%			
JWCH/SCHARP - Lynwood	94.1% (N=34)	100.0%(N=34)	100.0%	100.0%(N=20)	100.0%(N=20)	100.0%			
Los Angeles LGBT Center	97.6% (N=42)	92.9% (N=42)	92.9%	100.0%(N=13)	100.0%(N=13)	100.0%			
Saban Community Clinic	100.0%(N=20)	100.0%(N=20)	100.0%	100.0%(N=11)	100.0%(N=11)	100.0%			
SSG-HOPICS	-	-	-	-	-	-			

Footnote: MID is the percentage of clients who made clinically meaningful improvement or maintained no incarcerations.

Stigma								
	Mean Scores	Assessment	MID	Mean Scores	MID			
Program Name	1 vs. 5		1 vs. 5	1 vs. 7		1 vs. 7		
Exodus Recovery, Inc.	2.44 (N=9) 2.23 (N=9)		55.6%	-	-	-		
JWCH/SCHARP - Bellflower	2.56 (N=9)	2.19 (N=9)	44.4%	2.64 (N=7)	2.74 (N=7)	28.6%		
JWCH/SCHARP - Lynwood	2.03 (N=6)	2.21 (N=6)	16.7%	2.00 (N=4)	2.26 (N=4)	0.0%		
Los Angeles LGBT Center	2.30 (N=9)	2.14 (N=9)	55.6%	2.37 (N=3)	2.23 (N=3)	33.3%		
Saban Community Clinic	2.10 (N=3)	1.90 (N=3)	33.3%	-	-	-		
SSG-HOPICS	-	-	-	-	-	-		

Footnote: MID is the percentage of clients who made clinically meaningful improvement or maintained no stigma.

Social Support – How much are people like family, friends, boyfriend/girlfriend, and other people who are important								
to your client (outside the mental health agency) involved in his/her mental health treatment?  Mean Scores Assessment 1 MID Mean Scores Assessment MID								
Program Name	VS	s. 5	1 vs. 5	1 v	1 vs. 7			
Exodus Recovery, Inc.	3.79 (N=116)	4.07 (N=116)	23.9%	3.84 (N=64)	4.23 (N=64)	18.0%		
JWCH/SCHARP - Bellflower	3.42 (N=36)	2.56 (N=36)	58.3%	3.38 (N=21)	2.43 (N=21)	66.7%		
JWCH/SCHARP - Lynwood	3.86 (N=22)	2.68 (N=22)	77.3%	3.43 (N=14)	2.07 (N=14)	71.4%		
Los Angeles LGBT Center	3.50 (N=36)	2.94 (N=36)	38.9%	4.11 (N=9)	3.33 (N=9)	42.9%		
Saban Community Clinic	3.41 (N=32)	3.06 (N=32)	45.2%	2.91 (N=11)	2.73 (N=11)	27.3%		
SSG-HOPICS	4.00 (N=5)	3.80 (N=5)	40.0%	-	-	-		

Footnote: MID is the percentage of clients who made clinically meaningful improvement or maintained high family involvement.

#### Social Support - In a normal week, how many times does s/he talk to someone outside of his/her family (like a friend, co-worker, classmate, roommate, etc.)? Mean Scores Assessment MID Mean Scores Assessment 1 MID **Program Name** vs. 5 1 vs. 5 1 vs. 7 1 vs. 7 Exodus Recovery, Inc. 3.66 (N=113) 2.82 (N=113) 60.2% 3.59 (N=61) | 2.98 (N=61) 55.7% JWCH/SCHARP - Bellflower 2.47 (N=36) 3.81 (N=21) | 2.62 (N=21) 3.75 (N=36) 69.4% 66.7% JWCH/SCHARP - Lynwood 3.95 (N=22) 2.73 (N=22) 72.7% 4.20 (N=15) | 2.27 (N=15) 92.9% Los Angeles LGBT Center 3.42 (N=38) 2.55 (N=38) 58.3% 3.63 (N=8) 2.75 (N=8) 57.1% Saban Community Clinic 3.19 (N=31) 2.58 (N=31) 45.2% 3.27 (N=11) 2.73 (N=11) 54.5% SSG-HOPICS 20.0% 3.00 (N=5) 3.60 (N=5)

Footnote: MID is the percentage of clients who made clinically meaningful improvement or maintained frequent contact with friends.

## **Glossary**

Adult Integrated Self-Assessment: The Adult Integrated Self-Assessment is a set of self-reported core measures selected to assess the adult client's perspective of their health-related quality of life, including physical functioning, quality of well-being, their physical and behavioral health, and health care utilization. Specifically, the Integrated Self-Assessment includes the PROMIS Global Health, Physical Health and Behaviors survey, Internalized Stigma of Mental Health, PROMIS-Derived Substance Use, and CHOIS.

**Assessment Numbers:** There are three different types of assessments: the baseline assessment, quarterly assessments, and semi-annual assessments. The baseline assessment is taken as close as possible to the client's enrollment date and is always assessment number 1. Quarterly and semi-annual assessments are follow-up assessments that are scheduled every three (quarterly) and six (semi-annual) months after the client's enrollment date. Follow-up quarterly and semi-annual assessments are assigned numbers in the order they are due. For example, the first quarterly assessment is assessment number 2, and the first semi-annual assessment is assessment number 3. Quarterly assessments are always even and semi-annual assessments are always odd.

Blood Pressure Categories: High blood pressure is diagnosed based on more than one criterion. The blood pressure categories provided in the report are based only on systolic and diastolic levels. The blood pressure categories for adults are the standard categories used by the American Heart Association. The categories indicate that a client is in their provided blood pressure range, but cannot serve as a diagnosis without additional information. The blood pressure categories are as follows:

- Normal = Systolic less than 120 AND Diastolic less than 80
- Pre-Hypertension = Systolic between 120 and 139 OR Diastolic between 80 and Stage 1 Hypertension = Systolic between 140 and 159 OR Diastolic between 90 and 99
- Stage 2 Hypertension = Systolic between 160 and 179 OR Diastolic between 100 and 109
- Hypertensive Crisis = Systolic higher than 180 OR Diastolic higher than 110

Body Mass Index (BMI) Categories: Body Mass Index (BMI), which is calculated based on an individual's height and weight, is a common method of determining whether an individual is at a healthy weight. BMI categories used by the Center for Disease Control and Prevention were used to help interpret BMI values for adults. The categories indicate that a client is in their provided obesity range, but cannot serve as a diagnosis without additional information. The BMI categories are as follows:

- Underweight = BMI score under 18.4
- Normal = BMI score between 18.5 and 24.9
- Overweight = BMI score between 25.0 and 29.9
- Obese = BMI score above 30.0

CHOIS Supplement: The Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS) Supplement was developed as a companion measure to the PROMIS mental health domains, and also incorporates recoverybased items to measure strengths. The CHOIS provides three subscale scores focusing on memory, psychosis, and strengths. All CHOIS scores range from 1 to 5. For memory and psychosis, lower scores represent less impairment (lower scores are desirable). For strengths, lower scores represent greater strengths (lower scores are desirable). Adult clients were asked to complete the CHOIS supplement every six months.

Cholesterol Risk Categories: Cholesterol is diagnosed based on more than one criterion. The cholesterol categories provided in this report are based only on HDL and LDL levels. The cholesterol categories for adults are the standard categories used by the American Heart Association. The categories indicate that a client is in their provided range of cholesterol risk, but cannot serve as a diagnosis without additional information. The cholesterol risk categories are as follows:

- Optimal Level = HDL higher than 60 AND LDL less than 100
- Near Optimal Level = For Men: HDL between 50 and 59.9 OR LDL between 100 and 129.9. For Women: HDL between 40 and 59.9 or LDL between 100 and 129.9
- Borderline High Risk = LDL between 130 and 159.9
- High Risk = For Men: HDL less than 49.9 OR LDL between 160 and 189.9. For Women: HDL less than 39.9 OR LDL between 160 and 189.9
- Very High Risk = LDL higher than 190

Client Satisfaction with Services: The Client Satisfaction with Services survey assesses adult clients' satisfaction with INN services. Satisfaction items were combined into a score ranging from 1 to 5, with higher scores representing greater overall satisfaction with INN services (higher scores are desirable). Several of the items from the satisfaction survey were used to assess cultural competency, program integration, and engagement. A random sample of adult clients was asked to complete the Client Satisfaction with Services every six months (starting six months after enrollment).

**Diabetes Risk Categories:** Diabetes is diagnosed based on more than one criterion. The diabetes categories provided in the report are based only on fasting glucose and A1C levels. The diabetes categories for adults are the standard categories used by the American Diabetes Association. The categories indicate that a client is in their provided range of diabetes risk, but cannot serve as a diagnosis without additional information. The diabetes risk categories are as follows:

- Low Blood Sugar = Fasting Glucose Levels less than 70
- Normal = Fasting Glucose Levels between 70 and 89.9 AND A1C between 1% and 5.69%
- High Normal = Fasting Glucose Levels between 90 and 99.9
- Pre-Diabetic = Fasting Glucose Levels between 100 and 125.9 OR A1C between 5.7% and 6.49%
- Diabetic = Fasting Glucose Levels higher than 126 OR A1C higher than 6.5%

Harder+Company Community Research: Harder+Company Community Research was established in 1986 with a mission to help organizations achieve social impact through quality research, strategy, and organizational development services. Harder and Company has offices throughout the state of California, and has worked with both public and private agencies to plan, evaluate and improve health, mental health, and social services programs. With a diverse and comprehensive staff, Harder+Company has the capacity and expertise to conduct program evaluation using a range of quantitative and qualitative methods in multiple languages, and has built a strong reputation for their ability to work in highly diverse communities.

Health Services Research Center (HSRC): Established in 1991 by the UCSD Department of Family and Preventative Medicine, HSRC provides comprehensive research services in the fields of health outcomes measurement, program evaluation, and informatics. HSRC strives to help healthcare organizations through innovative research, evaluation, and informatics strategies to help improve health care delivery systems and, ultimately to improve people's quality of life. HSRC comprises a diverse staff whose expertise encompasses the fields of primary care, public health, clinical and applied psychology, health outcomes measurement, program evaluation, and medical informatics.

**iHOMS:** iHOMS stands for the Innovation Health Outcomes Management System. The iHOMS system is built and maintained by the Health Services Research Center at UCSD as a secure, integrated electronic health record for client outcomes. The iHOMS system was used to complete client and clinician assessments, share

information between staff providing care, and bring together client and clinician information into a useable summary report.

Illness Management and Recovery (IMR): The Illness Management and Recovery scale (IMR) was designed as a measure of the clinicians' perception of a clients' illness recovery. Items assess the extent to which the client is participating in their treatment and achieving the goals set by their mental health provider. The IMR provides a total scale score, and three subscale scores which focus on recovery, management, and substance use. All IMR scores range from 1 to 5, with lower values representing greater illness recovery (lower scores are desirable). Clinicians are asked to complete the IMR for all clients (adults and youth) every three months.

Included Clients: The demographic information (gender, age, ethnicity) summarizes all the clients currently enrolled for each specific provider (as of the date of this report). Information in this report includes all clients who are currently or have ever received services and have a completed client and/or clinician assessment – including those who have been discharged.

Innovation (INN) Program: The MHSA-funded Innovation (INN) program aims to identify new mental health care practices with the primary goal of learning and exploring creative and effective approaches that can be applied to the integration of mental health, physical health and substance use services for uninsured, homeless, and underrepresented populations.

Integrated Clinic Model (ICM): The Integrated Clinic Model (ICM) is designed to improve access to quality culturally competent services for individuals with physical health, mental health and co-occurring substance abuse diagnoses by integrating care within both mental health and primary care provider sites.

Integrated Mobile Health Team (IMHT): The Integrated Mobile Health Team (IMHT) service model is designed to improve and better coordinate the quality of care for individuals with severe mental illness (SMI) or serious emotional disturbance (SED) who meet Medi-Cal medical necessity criteria for receiving specialty mental health services, were homeless or have recently moved into Permanent Supportive Housing (PSH), and have other vulnerabilities. Vulnerabilities include but are not limited to: age, years homeless, and substance abuse and/or other physical health conditions that require ongoing primary care.

Community-Designed Integrated Service Management Model (ISM): The Community-Designed Integrated Service Model (ISM) is designed to increase the quality of services, specifically for underserved ethnic communities by addressing the fragmentation inherent in the current public mental health system of care and by building on the strengths of each particular community.

Integrated Treatment Tool (ITT): The ITT is intended to evaluate the presence and extent of a Person-Centered Healthcare Home Model that integrates primary and behavioral healthcare services. The tool was developed at Case Western Reserve University through support from a SAMHSA grant and incorporates the best available evidence – combining theoretical, empirical, and practice based knowledge. The ITT was administered to all providers during the first year of INN services, and follow-up calls were conducted during the second year of services to track program change.

Internalized Stigma of Mental Illness (ISMI): The Internalized Sigma of Mental Illness scale (ISMI) assesses client reported experiences with stigma and common stereotypes about mental illness, as well as the ability to resist or be unaffected by internalized stigma. ISMI items and total scale scores range from 1 to 4, with lower scores representing decreased stigma (lower scores are desirable). ISMI scale scores are also categorized into four levels of stigma: minimal to no internalized stigma (scale scores from 1.00 to 2.00), mild internalized stigma (scale scores from 2.01 to 2.50), moderate internalized stigma (scale scores from 2.51 to 3.00), and severe internalized stigma (scale scores from 3.01 to 4.00). Adult clients are asked to complete the ISMI when entering the program, and then a random sample of adult clients are asked to complete the ISMI again every six months.

**Interpreting Adult Scale Scores:** Brief explanations of the different adult scales referred to in this report and how to interpret them are provided below. Besides the outcome measures, most scale scores have been recoded so that they range from 1 to 5, with lower scores being desirable.

- IMR: The Illness Management and Recovery scale (IMR) was designed as a measure of the clinician's perception of a client's illness recovery. Items assess the extent to which the client is participating in their treatment and achieving the goals set by their mental health provider. The IMR provides a total scale score, and three subscale scores which focus on recovery, management, and substance use. All IMR scores range from 1 to 5, with lower values representing greater illness recovery (lower scores are desirable). The IMR is supposed to be completed by a clinician at every assessment period.
- MORS: The Milestones of Recovery Scale (MORS) assesses a clinician perception of client's current degree of recovery. Ratings are determined considering three factors: level of risk, level of engagement, and level of skills and supports. The MORS ratings range from 1 to 8. Although this is not a linear scale, generally speaking, higher MORS ratings are associated with greater stages of recovery. The MORS is supposed to be completed by a clinician at every assessment period.
- PROMIS: The PROMIS Global Health is a client reported health-related quality of life measure that assesses multiple domains of health, including physical health, pain, fatigue, mental health, social health and overall health. The PROMIS provides a total scale score, two subscales, and a single-item pain intensity rating. The two subscales focus on physical and mental health. The total PROMIS score and the two subscales range from 1 to 5, with lower scales indicating better functioning. The pain-intensity rating ranges from 0 to 10, with higher scores indicating greater pain interference. The PROMIS is supposed to be completed by the client at every assessment period.
- CHOIS: The CHOIS Supplement was developed as a companion measure to the PROMIS mental health
  domains, and also incorporates recovery-based items to measure strengths. The CHOIS provides three
  subscale scores focusing on memory, psychosis, and strengths. All CHOIS scores range from 1 to 5. For
  memory and psychosis, lower scores represent less impairment (lower scores are desirable). For
  strengths, lower scores represent greater strengths (lower scores are desirable). The CHOIS is supposed
  to be completed by the client at the baseline assessment and at each follow-up semi-annual
  assessment.
- <u>Substance Use</u>: The PROMIS-Derived Substance Use scale is a client reported measure of the negative consequences of substance use. The Substance Use scale ranges from 1 to 5, with lower values representing less substance use. The Substance Use scale is supposed to be completed by the client at the baseline assessment and at each follow-up semi-annual assessment.
- <u>Stigma</u>: The Internalized Stigma of Mental Illness (ISMI) scale is used to measure clients' subjective
  experience with mental illness stigma. The Stigma scale provides an overall scale score, and four
  categories of stigma: minimal to no internalized stigma, mild internalized stigma, moderate internalized
  stigma, and severe internalized stigma. Scale scores range from 1 to 4, with lower scores representing
  less internalized stigma. The Stigma scale was completed by clients at the baseline assessment, and
  then for a selected sample of clients at each follow-up semi-annual assessment. ISMI scores are also
  put into categories to help interpret different levels of mental health stigma, ranging from minimal to
  no internalized stigma to severe internalized stigma.

**IS (Integrated System):** The Los Angeles County Department of Mental Health (LACDMH) uses the IS to maintain records for all clients. The IS is a secure, web-based information system designed to comply with HIPAA and improve service delivery. LACDMH providers are asked to maintain records on all clients receiving services.

**Learning Session:** Learning sessions were designed to support the implementation of INN by creating opportunities for providers and LACDMH to identify common challenges and recognize promising and best practices as they develop in real-time.

Matched Samples: Matched samples are used to examine statistical changes in the outcome measures over time. A matched sample includes only the clients with completed assessments at each time point being compared.

Mental Health Services Act (MHSA): The MHSA, which was passed by California voters in 2004, aims to improve and transform the delivery of mental health services and treatment across the state of California.

Milestones of Recovery (MORS): The Milestones of Recovery Scale (MORS) assesses a clinician perception of clients' current degree of recovery. Ratings are determined considering three factors: level of risk, level of engagement, and level of skills and supports. The MORS ratings range from 1 to 8. Although this is not a linear scale, generally speaking, higher MORS ratings are associated with greater stages of recovery (higher scores are desirable). Clinicians are asked to complete the MORS for all adult clients every three months.

Minimal Important Difference (MID): An Minimal Important Difference (MID) is the smallest change in scale or subscale scores that would be considered important by patients and/or clinicians, therefore providing the smallest difference in scores that would be associated with clinically perceivable changes. There are many ways to calculate MIDs, but for the current evaluation report, ½ standard deviation was used.

Physical Health and Behaviors Survey: The Physical Health and Behaviors survey assesses a variety of domains, including substance and tobacco use, service utilization, constructive behaviors, and previous experiences accessing care. Adult clients are asked to complete the Physical Health and Behaviors survey every six months. Youth clients at least 8 years old are also asked to complete a sub-set of questions on the Physical Health and Behaviors survey (physical activity, medication use, substance use, and constructive behaviors) every six months.

Physical Health Indicators: This Physical Health Indicators tool collects information on screenings and test results for common chronic conditions (Diabetes, Obesity, Cardiopulmonary Disease, Tuberculosis, Asthma, Emphysema, and STDs), as well as insurance and homelessness information. Clinicians are asked to complete the Physical Health Indicators for all clients (adults and clients) every six months.

Post-Outcomes Survey: The Post-Outcomes survey assesses adult client-perceived outcomes due to INN services. Responses ranged from Strongly Agree to Strongly Disagree, with higher agreement representing greater perceived outcomes associated with INN services (agree/strongly agree desirable). A random sample of adult clients is asked to complete the Post-Outcomes survey every six months (starting six months after enrollment).

PROMIS Global Health: The Patient-Reported Outcomes Measurement Information System (PROMIS) Global Health scale is a client reported health-related quality of life measure that assesses multiple domains of health, including physical health, pain, fatigue, mental health, social health and overall health. The PROMIS Global Health provides a total scale score, and two subscales. The two subscale focus on physical and mental health. The total PROMIS score and the two subscales range from 1 to 5, with lower scales indicating better functioning (lower scores are desirable). Adult clients are asked to complete the PROMIS Global Health every three months.

PROMIS-Derived Substance Use: The PROMIS-Derived Substance Use scale is a client reported measure of the negative consequences of substance use. The Substance Use scale ranges from 1 to 5, with lower values representing less substance use (lower scores are desirable). Only clients who indicated on the Physical Health and Behaviors survey that they drink alcohol and/or use drugs were asked to complete the PROMIS-Derived Substance Use scale (clients who reported never using alcohol and/or drugs were excluded). Adult and youth clients that received the PROMIS-Derived Substance Use scale were asked to complete the survey every six months.