PERFORMANCE IMPROVEMENT PROJECT (PIP) DEVELOPMENT & IMPLEMENTATION TOOL

BACKGROUND

All MHPs/DMC-ODSs are required to conduct performance improvement projects (PIPs) that focus on both clinical and nonclinical areas each year as a part of the plan's quality assessment and performance improvement (QAPI) program, per 42 C.F.R. §§ 438.330 and 457.1240(b).

A PIP is a project that is designed to achieve significant improvement, sustained over time, in health outcomes and enrollee satisfaction. It may be designed to change behavior at a member, provider, and/or MHP/DMC-ODS/system level.

Each PIP will be evaluated every year by CalEQRO. Although topic selection and explanation may cover more than one PIP year, every section will be reviewed and updated as needed to ensure continued relevance and to address changes to the study, including new interventions.

Annual updates to these documents by the MHP/DMC-ODS should be identified by a change in font color or use of track changes.

The CalEQRO PIP Development and Implementation Tool is comprised of the following nine steps:

Step 1: Identifying the PIP Topic

Step 2: Developing the Aim Statement

Step 3: Identifying the PIP Population

Step 4: Describing the Sampling Method

Step 5: Selecting the PIP Variables and Performance Measures

Step 6: Describing the Improvement Strategy (Intervention) and Implementation Plan

Step 7: Describing the Data Collection Procedures

Step 8: Describing the Data Analysis and Interpretation of PIP Results

Step 9: Address the Likelihood of Significant and Sustained Improvement Through the PIP

INSTRUCTIONS

This tool provides a structure for development and submission of PIPs. It is based on **EQR Protocol 1: Validation of Performance Improvement Projects (PIPs),** as a mandatory protocol delivered by the Centers for Medicare & Medicaid Services (CMS) in October of 2019. These can be found here:

CMS 2019 External Quality Review Protocols.

Following this tool will help ensure that the MHP/DMC-ODS addresses all of the required elements of a PIP, from planning to submission to implementation. If the MHP/DMC-ODS uses another format, they must ensure that all required elements of the PIP are addressed and included in their submission.

For each step, CalEQRO has indicated:

- The section of the CMS EQR Protocol 1: Validation of Performance Improvement Projects (PIPs) that this step addresses.
- Brief description of the step and key terms.
- Questions/prompts that will help complete the step.
- Worksheets to complete as part of each step.

Please define all acronyms at time of first use in these documents.

STEP 1: IDENTIFYING THE PIP TOPIC

Step 1 corresponds to CMS PROTOCOL STEP 1 – Review the Selected PIP Topic.

The PIP should target improvement in either a clinical service or non-clinical process that directly impacts beneficiary health and/or functional status.

The topics should reflect high-volume or high-risk conditions of the population served. High-risk conditions may occur for infrequent conditions or services. High risk also exists for populations with special health care needs, such as children in foster care, adults with disabilities, and the homeless. Although these individuals may be small in number, their special health care needs place them at high risk. If the PIP addresses a high-impact or high-risk condition, the importance of addressing this type of issue must be detailed in the study narrative.

PIP topics may be selected based on enrollee input. The topic should address a significant portion of the enrollees (or a specified sub-portion of enrollees) and have the potential to significantly impact enrollee health, functional status, or satisfaction.

Recommended benchmarks include those defined by:

CMS Priority areas CMS Quality of Care
Core Set of Children's Health Care Quality Measures for Medicaid and the Children's Health Insurance Program (CHIP)
Core Set of Health Care Quality Measures for Adults Enrolled in Medicaid (Adult Core Set)

Complete Worksheet 1: Drafting the PIP Topic

STEP 2: DEVELOPING THE AIM STATEMENT

Step 2 corresponds to CMS PROTOCOL STEP 2 – Review the PIP AIM Statement

The PIP aim statement identifies the focus of the PIP and establishes the framework for data collection and analysis. The PIP aim statement should define the improvement strategy, population, and time period. It should be clear, concise, measurable, and answerable.

A PIP aim statement is clear, concise, measurable, and answerable if the statement specifies measurable variables and analytics for a defined improvement strategy, population, and time period. Potential sources of information to help form the PIP aim statement include:

- State data relevant to the topic being studied
- MHP/DMC-ODS data relevant to the topic being studied
- CMS Child and Adult Core Set performance measures
- Enrollee focus groups or surveys
- Clinical literatures on recommended care and external benchmarks.

CMS recommends that the aim of the PIP aligns with at least one of the *National Quality Strategies*, although others may be considered.

CRITIQUE OF EXAMPLE PIP AIM STATEMENTS

	Example PIP aim statements	Critique
Poor PIP Aim Statement	Does the MCP adequately address psychological problems in patients recovering from myocardial infarction?	• The PIP intervention is not specified • It is unclear how impact will be measured • The population and time period are not clearly defined
Good PIP Aim Statement	Will the use of cognitive behavioral therapy in patients with depression and obesity improve depressive symptoms over a six-month period during 2017?	• Specifies the PIP intervention (cognitive behavioral therapy) • Defines the population (patients with depression and obesity) and time period (six-month period during 2017) • Specifies the measurable impact (improve depressive symptoms)

Complete Worksheet 2: Drafting the Aim Statement

STEP 3: IDENTIFYING THE PIP POPULATION

Step 3 corresponds to CMS PROTOCOL STEP 3 – Review the Identified PIP Population.

In this step, the MHP/DMC-ODS identifies the population for the PIP in relation to the PIP aim statement (such as age, length of enrollment, frequency of service use, type of treatment, diagnoses, and/or other characteristics).

Depending on the nature of the PIP aim statement, PIP population, and available data, the PIP may include the entire population or a sample of the population. PIPs that rely on existing administrative data, such as claims and encounter data, registry data, or vital records, are typically based on the universe of the PIP population. PIPs that rely on either medical record review or the hybrid method (which uses a combination of administrative data and medical record review) typically include a representative sample of the identified population.

If a sample was used for the PIP, go to Step 4.

If the entire population was studied, skip Step 4 and go to Step 5.

If HEDIS® measures and sampling methodology are used, go to Step 5.

Complete Worksheet 3: Identifying the PIP Population

STEP 4: DESCRIBING THE SAMPLING METHOD

Step 4 corresponds to CMS PROTOCOL STEP 4 – Review the Sampling Method.

If the entire population of beneficiaries is being included in the PIP, there is no need to describe the sampling method.

General information about the use of sampling methods and the types of sampling methods to use to obtain valid and reliable information can be found in Appendix B (page 337) of the **CMS EQR Protocols.**

A sampling frame is the list from which the sample is drawn. It includes the universe of members of the target PIP population, such as individuals, caregivers, households, encounters, providers, or other population units that are eligible to be included in the PIP. The completeness, recency, and accuracy of the sampling frame are key to the representativeness of the sample

If sampling methods are used, the documentation presented must include the appropriateness and validity of the sampling method; the type of sampling method used and why; and what subset of the beneficiary population was used. General information about the use of sampling methods and the types of sampling methods to use to obtain valid and reliable information can be found in Appendix B of the **CMS EQR Protocols.** [1]

Complete Worksheet 4: Describing the Sampling Plan

[1] EQR Protocol: Appendix B: Sampling Approaches, October 2019, DHHS, Centers for Medicare & Medicaid Services (CMS), OMB Approval No. 0938-0786

STEP 5: SELECTING PIP VARIABLES AND PERFORMANCE MEASURES

Step 5 corresponds to CMS PROTOCOL STEP 5 – Review the Selected PIP Variables and Performance Measures.

A variable is a measurable characteristic, quality, trait, or behavior of an individual or process being studied. Variables in PIPs can take a variety of forms, as long as the selected variables identify the MHP/DMC-ODS performance on the PIP questions objectively and reliably and use clearly defined indicators of performance. When choosing variables, select ones that are best suited to the available data, resources, and PIP aim statement.

Consider variables for which there are existing performance measures. To the extent possible, CMS encourages MCPs to choose variables for PIPs that reflect health outcomes.

A performance measure is used to measure the outcomes. Performance measures monitor the performance of MHP/DMC-ODS at a point in time, to track performance over time and to inform the evaluation of quality improvement activities. For the purpose of the CMS protocol, outcomes are defined as changes in beneficiary health, functional status, satisfaction, or goal achievement that results from health care or supportive services. CMS encourages use of the Behavioral Health Core Set, the Certified Community Behavioral Health Clinics (CCBHC) measures, the Healthcare Effectiveness Data Information Set (HEDIS), as well as measures developed by the Agency for Health Research and Quality (AHRQ), and the National Quality Forum (NQF) for behavioral health or for SUD the American Society of Addiction Medicine (ASAM).

> Example 1: An MHP/DMC-ODS's goal is to decrease the use of acute behavioral health hospitalizations and ED visits. The intervention is use of preventive and primary care, and the independent variable used to measure the intervention is the number of preventive and primary care visits. The performance measure (dependent variable) is the number of hospitalizations and emergency department visits, which is used to measure the improvement rate. The required data are available monthly through the electronic health record.
>
> Example 2: An MHP/DMC-ODS's goal is to decrease use of antipsychotic medication by adolescents. The intervention is use of first-line psychosocial care for adolescents, and the independent variable used to monitor implementation of the intervention is the number of visits in which use of first-line psychosocial care for adolescents is documented. The performance measure (dependent variable) is a measure of antipsychotic medication prescribed (this could be the # of prescriptions, # of adolescents who have it prescribed or decrease in dosages, for example. The dependent variable would depend on the goal, which is the data used to measure the improvement rate. The required data are available every month through the electronic health record.

Example 3: A DMC-ODS's goal is to decrease readmissions to withdrawal management by adults with opioid use disorders. The intervention is use of intensive outpatient and Medication Assisted Treatment (MAT) services, and the independent variable used to monitor implementation of the intervention is the number of intensive outpatient and MAT visits. The performance measure (dependent variable) is the number of readmissions. Data are available quarterly through the electronic health record.

Data availability should also be considered when selecting variables for PIPs, as more frequent access to data, such as on a monthly or quarterly basis, supports continuous quality improvement (CQI) and Plan Do Study Act (PDSA) efforts and can allow an MHP/DMC-ODS to correct or revise course more quickly, if needed.

When selecting performance measures for a PIP, the MHP/DMC-ODS should first consider established measures (MHP/DMC-ODS, DHCS, CMS, etc.) because the specifications for these measures often have been refined over time, may reflect current clinical guidance, and may have benchmarks for assessing MHP/DMC-ODS performance.

Complete Worksheet 5: Selecting PIP Variables and Performance Measures

STEP 6: DESCRIBING THE IMPROVEMENT STRATEGY (INTERVENTION) & IMPLEMENTATION PLAN

Step 6 corresponds to CMS PROTOCOL STEP 8 – Assess the Improvement Strategies.

This step describes the improvement strategy (sometimes referred to as an intervention) and how it will be carried out. Selected strategies should be evidence-based; that is, there should be existing evidence (published or unpublished) suggesting that the test of change (performance measure) would likely lead to the desired improvement in processes or outcomes (as measured by the variables). The effectiveness of the improvement strategy is determined by measuring change in performance according to the predefined measures that were selected in Step 5.

Complete Worksheet 6: Describe Improvement Strategy (Intervention) & Implementation Plan

STEP 7: DESCRIBING DATA COLLECTION PROCEDURES

Step 7 corresponds to CMS PROTOCOL STEP 6 – Review the Data Collection Procedures.

In this step, the MHP/DMC-ODS identifies the data to be collected, including addressing the validity and reliability of the procedures used to collect the data that inform the PIP measurements.

Validity means that the data are measuring what is intended to be measured. Reliability means that the data are producing consistent results.

To ensure validity and reliability of the data collected as part of the PIP, the data collection plan should specify:

- The data sources for the PIP
- The data to be collected
- How and when the data are to be collected
- Frequency of data collection
- Who will collect the data
- Instruments used to collect the data

Data sources may include:

- Encounter and claims systems
- Medical records
- Case management or electronic visit verification systems
- Tracking logs
- Surveys
- Provider and/or enrollee interviews

This step may involve two main kinds of data collection: administrative data sources and medical record review. Procedures to collect data from administrative data systems will be different from procedures for visual inspection or abstraction of medical records or other primary source documents. However, both types of data collection require assurances that data are valid and reliable. CMS encourages the plans to utilize those data sources that they are able to collect data from on a regular basis (e.g., monthly, quarterly, and semi-annually):

Complete Worksheet 7: Describing The Data Collection Procedures

STEP 8: DESCRIBING THE DATA ANALYSIS AND INTERPRETATION OF PIP RESULTS

Step 8 corresponds to CMS PROTOCOL STEP 7 – Review the Data Analysis and Interpretation of PIP Results.

In this step, the MHP/DMC-ODS should describe the plan for data analysis and interpretation of PIP results. The data collection plan described in Step 7 should link to plan for data analysis.

The data analytic plan should be based on a CQI philosophy and reflect an understanding of lessons learned and opportunities for improvement. Interpretation of the PIP results should involve assessing the causes of less-than-optimal performance and collecting data to support the assessment.

The primary source for the assessment should be analytic reports of PIP results prepared by the MHP/DMC-ODS, including both baseline and repeat measurements of PIP outcomes. In addition, reasonable benchmarks should be included, where possible, such as state-level data, data from other counties, or industry benchmarks.

This protocol requires the analysis to assess the extent to which any change in performance is statistically significant; however, it does not specify a level of statistical significance that must be met. MHPs/DMC-ODS should indicate the level of statistical significance used in the analysis and which findings were statistically significant.

Complete Worksheet 8: Data Analysis and Interpretation of PIP Results

STEP 9: ADDRESS THE LIKELIHOOD OF SIGNIFICANT AND SUSTAINED IMPROVEMENT THROUGH THE PIP

Step 9 corresponds to CMS PROTOCOL STEP 9 – Assess The Likelihood that Significant and Sustained Improvement Occurred.

In this step, CalEQRO assesses the likelihood that significant and sustained improvement occurred as a result of the PIP. The assessment builds on findings from the previous steps. In this step, CalEQRO assess the overall validity and reliability of the PIP methods and findings to determine whether or not it has confidence in the results.

An important component of a PIP is to determine if the reported change is “real” change, or the result of an environmental or unintended consequence, or random chance. It is also essential to demonstrate sustained improvement.

To do so requires repeated measurements be conducted over the course of the PIP, and whether significant change in performance relative to baseline measurement was observed. The repeat measurement should use the same methodology as the baseline measurement. Any deviations in methodology (such as sampling, data source, or variable definition) must be thoroughly documented. If the PIP is in the early stages of implementation, and repeated measurements are not yet available, the analysis plan should describe the methodology for subsequent measurement. In assessing the likelihood that PIP results are sustainable, the analysis should include which findings were found to be significant either statistically, clinically, or programmatically over time.

PIP documentation should include the following

- Data that analyzes changes in processes or beneficiary outcomes based on the variables included and compared to baselines and benchmarks.
- Extent to which there was a quantitative improvement in process or outcomes.
- Extent to which statistical evidence supports that the improvement is true improvement.
- Results of statistical significance testing.
- Extent to which the improvements appear to be the result of the PIP improvement strategies.
- Issues associated with data analysis.

Potential sources of supporting information include:

- Statistical significance testing calculated on baseline and repeat indicator measurements (clarify that the appropriate test was used, such as a t-test for small samples)
- Benchmarks for quality specified by the state Medicaid agency or found in industry standards

- Interviews with staff and providers about the implementation and results of the PIP intervention

The EQRO will review the PIP methods and findings to assess whether there is evidence of statistically significant improvement that may be associated with the intervention implemented as part of the PIP. In addition, the EQRO may supplement the quantitative assessment with information gathered through interviews with staff and/or providers about the implementation and results of the PIP improvement strategies. Qualitative information may inform the assessment of whether observed changes were likely to be attributable to the PIP intervention, as opposed to a short-term event unrelated to the intervention or random chance.

Complete Worksheet 9: Likelihood Of Significant And Sustained Improvement Through The PIP

PIP PLANNING, SUBMISSION, AND IMPLEMENTATION WORKSHEETS

Worksheet 1: Drafting The PIP Topic

Worksheet 2: Drafting the Aim Statement

Worksheet 3: Identifying the PIP Population

Worksheet 4: Describing the Sampling Method

Worksheet 5: Selecting PIP Variables and Performance Measures

Worksheet 6: Describe Improvement Strategy (Intervention) and Implementation Plan

Worksheet 7: Describing the Data Collection Procedures

Worksheet 8: Data Analysis and Interpretation of PIP Results

Worksheet 9: Likelihood of Significant and Sustained Improvement Through the PIP

Please define all acronyms at time of first use in these documents.

WORKSHEET 1: DRAFTING THE PIP TOPIC

MHP/DMC-ODS Name	County of Los Angeles Department of Mental Health (DMH)
Project Leader/Manager/Coordinator	Kalene Gilbert, LCSW
Contact email address	kgilbert@dmh.lacounty.gov
Performance Improvement Title	Improving Quality of Services for Consumers with Co-Occurring Disorders (COD)
Type of PIP	☒ Clinical ☐ Non-clinical
PIP period (# months):	Start 02/2019 to End 02/2022
Additional Information or comments	

Briefly describe the aim of the PIP, the problem the PIP is designed to address, and the improvement strategy.

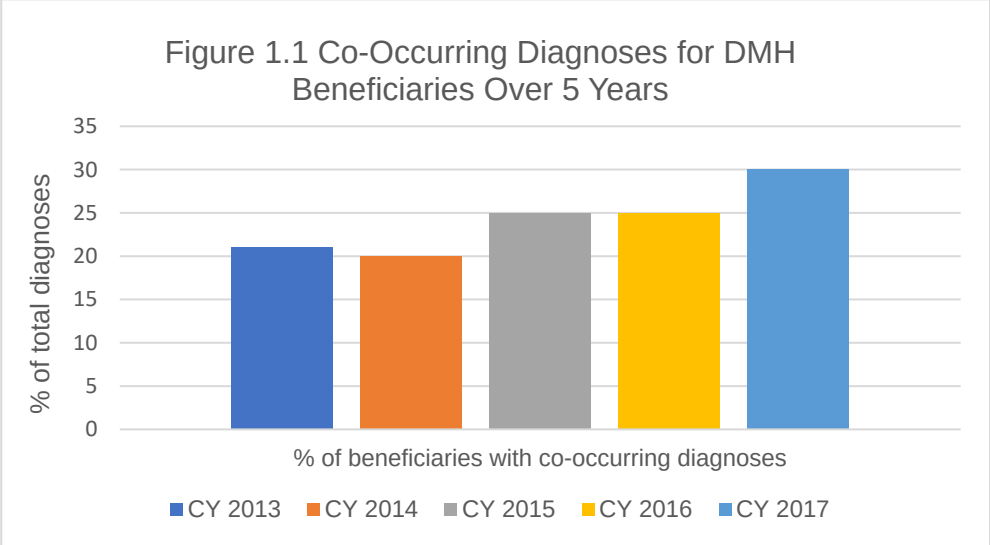
The goal of this project will be to improve the quality of services delivered to DMH consumers experiencing co-occurring disorders (CODs), which are defined as coexistence of both a mental health (MH) disorder and a substance use disorder (SUD), by improving access to integrative, multidisciplinary treatment models that address mental health and substance use simultaneously. It is anticipated that these treatment models will directly address and mitigate the impact of substance use upon consumers' MH symptoms as well as enhance their ability to reduce substance use and improve MH functioning by coping and practicing safety in relationships, feelings, thoughts, and actions. In Phase I (or Year I) of this project, interventions targeted the services consumers are receiving from Substance Abuse Counselors (SACs) in 12 Directly-Operated (DO) clinics. Specifically, the SACs started implementing treatment strategies targeting co-occurring MH and substance use problems as well as in Seeking Safety (SS), a specific evidence-based practice (EBP) for trauma and substance use. Additional interventions in Phase I included ongoing SS consultation calls and implementation of an expanded curriculum on emphasizing mental health symptoms in interventions for COD (i.e., the UCLA Extension course). In Phase II (or Year II) of this project, interventions aimed to focus on improved teaming and use of multidisciplinary groups as well as administrative documents to define and provide guidance on the role of the SACs and teaming.

The PIP will be used to evaluate the effectiveness of integrative, multidisciplinary evidence-based treatment models for DMH consumers with CODs. It targets the current barriers to providing these treatment models in the DMH system, such as SAC lack of foundational knowledge in evidence-based interventions that address MH and substance use simultaneously, trauma-informed treatment that promotes recovery-oriented coping skills and lack of clear guidelines regarding how to practice these models within a multidisciplinary team. The topic of integrated care for consumers with CODs was selected because it is a high priority for DMH as well as for the Department of Health and Human Services (HHS) and the Centers for Medicare and Medicaid Services (CMS). Half of the behavioral health measures in the 2020 Core Set of Adult Health Care Quality Measures for Medicaid relate to substance use (i.e., initiation and engagement of alcohol and other drug abuse or dependence treatment, medical assistance with smoking and tobacco use cessation, use of opioids at high dosage in persons without cancer, concurrent use of opioids and benzodiazepines, use of pharmacotherapy for opioid use disorder, follow-up after emergency department visit for alcohol and other drug abuse or dependence). The prevention and treatment of opioid and SUDs is also a component of the "Promote Effective Prevention and Treatment of Chronic Disease" area of CMS' recent Meaningful Measures Initiative. If successful, the PIP will be extended to improve outcomes of care by implementing additional integrated treatment models and extending these models to other age groups, staff roles, and contracted providers.

What MHP/DMC-ODS data have been reviewed that suggest the issue is a problem?

Hospitalization Rates

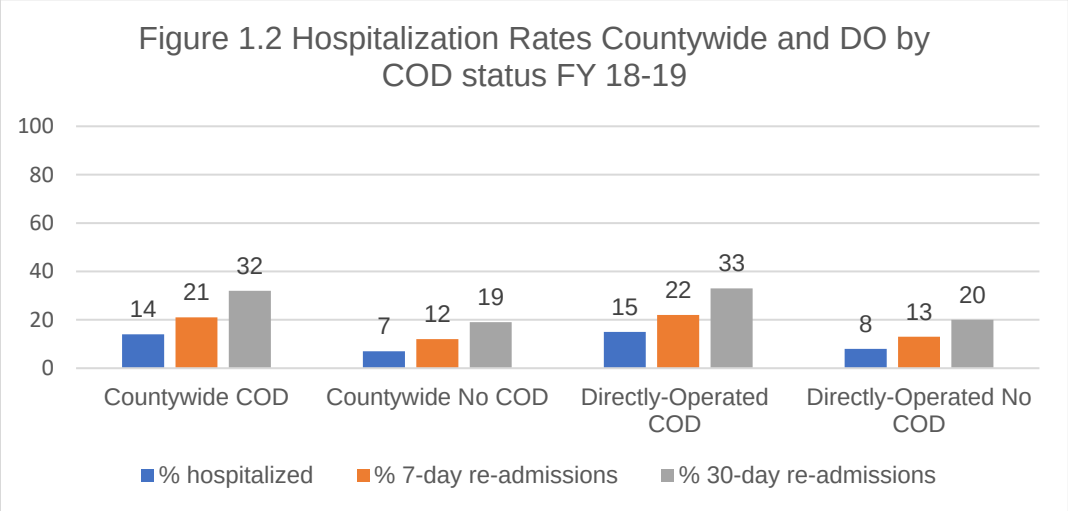
Within DMH, individuals with COD represent almost a third (30%) of beneficiaries served (Medi-Cal Specialty Mental Health External Quality Review Reports, FY 18-19) and this number has steadily increased over the past five years (see Figure 1). This number is also likely an underrepresentation of the true number of COD consumers due to reluctance to report substance use during the assessment period. In FY 18-19, 37,834 adult (18 years and up) consumers received a COD diagnosis in any setting countywide. Of these consumers, 14% (N = 5,298) were hospitalized at least once during the year and there was an average of 2.70 hospitalizations per consumer. Of those hospitalized, 21% (N = 1,115) were re-admitted within seven days and 32% (N = 1,679) were re-admitted within 30 days. This is in stark contrast to those consumers who did not receive a COD diagnosis in any setting (N = 126,933) in FY 18-19, of which only 7% (N = 8,942) were hospitalized and for whom there were an average of 1.74 hospitalizations per consumer. Of those hospitalized with no secondary SUD diagnosis, 12% (N = 1,063) were re-admitted within seven days and 19% (N = 1,713) were re-admitted within 30 days.



Data Source: Medi-Cal Specialty Mental Health External Quality Review Reports, FY 14-15 to FY 18-19.

Figure 1.1 presents the percent of DMH beneficiaries who received a COD diagnosis between CY 2013 and CY 2017. There was a nine Percentage Point (PP) increase in the number of consumers with COD between CY 2013 and CY 2017. The most noticeable change was between CY 2017 and CY 2018 when the percentages went from 25 to 30 respectively.

There was a similar pattern specifically within DO clinics, in which 29,019 adult consumers had a secondary SUD diagnosis in FY 18-19. Fifteen percent of these consumers (N = 4,435) were hospitalized at least once during the FY and there were 2.83 hospitalizations on average per consumer. For consumers with a secondary SUD that were hospitalized, 22% (N = 980) were re-admitted within seven days and 33% (N = 1,463) were re-admitted within 30 days. For those with consumers with no secondary SUD diagnosis (N = 80,705), eight percent (N = 6,455) were hospitalized and there was an average of 1.79 hospitalizations per consumer. For consumers with no secondary SUD that were hospitalized, 13% (N = 814) were re-admitted within seven days and 20% (N = 1,301) were re-admitted within 30 days (see Figure 1.2). These rates are concerning given that frequent hospitalizations are disruptive to consumers' daily functioning and likely indicate a worsening of MH symptoms. MH interventions within psychiatric hospitalizations are time-limited and not likely to address ongoing MH and SUD concerns in the way that connection to ongoing integrated treatment would. Hospitalizations also contribute to a higher cost to the system with a higher average cost per consumer. It is important that the countywide system and DO clinics demonstrate a similar hospitalization rate pattern as starting interventions within the DO clinics allows us to test a small change and evaluate the outcomes before expanding to the larger system.

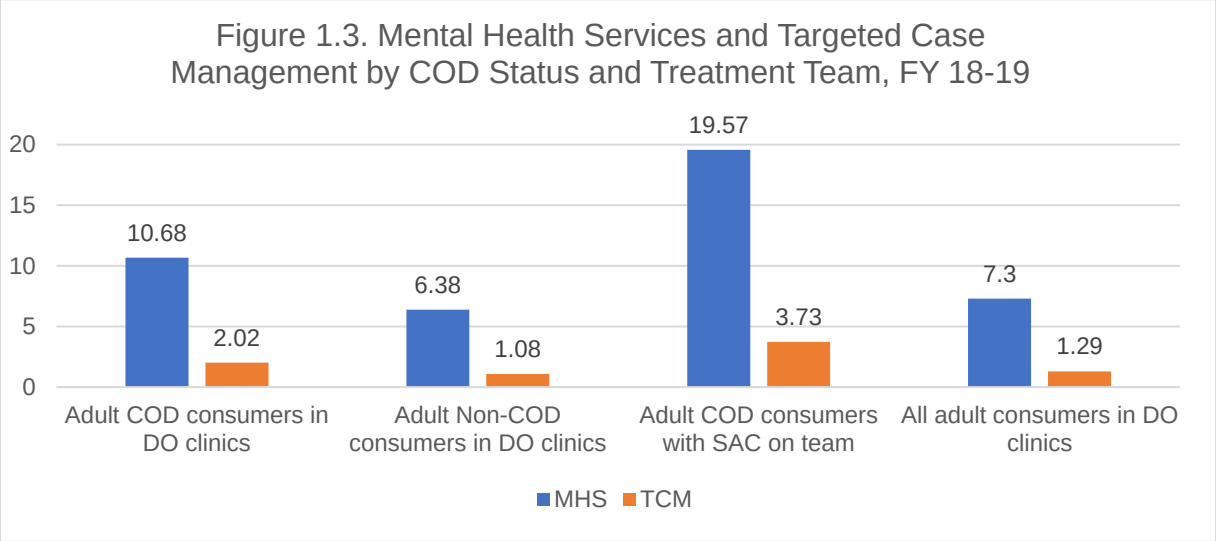


Data Source: Integrated Behavioral Health Information System (IBHIS), FY 18-19.

Figure 1.2 presents the percent of DMH beneficiaries who were hospitalized, re-admitted within seven days, and re-admitted within 30 days by COD status and by provider type (i.e., countywide vs. DO).

Treatment Engagement and Retention

Despite the greater number of hospitalizations and re-admission rates for consumers with CODs, data from the past FY show that these consumers are engaged in outpatient treatment services at a higher rate than those without CODs. In FY 18-19, consumers with CODs in DO clinics (N = 29, 019) received an average of 10.68 MH services and 2.02 targeted case management (TCM) services as opposed to consumers without CODs (N = 80, 705), who received 6.38 MH services and 1.08 TCM services on average. Engagement is particularly high when consumers with COD have a SAC on their treatment team. Adult consumers who received at least one service from a SAC in FY 18-19 (N = 3, 595) attended 19.57 MH services and 3.73 TCM services on average as opposed to all adult consumers in DO clinics (N = 109,700), who attended 7.30 MH services and 1.29 TCM services on average. However, many consumers with CODs do not receive services from SACs. Of the adult consumers with a secondary SUD in DO clinics in FY 18-19, only 12% (3,595/29,019) received at least one service from a SAC. Given the role that SACs play in keeping consumers with CODs in services, we would expect that a greater number of consumers would benefit from working with SACs as part of their treatment teams and there is an opportunity for SACs to be involved in multidisciplinary teams more frequently within DO clinics. As such, we would like to increase utilization of the SACs to provide more services that are billable to a greater number of consumers, particularly by running rehabilitation groups.



Data Source: Integrated Behavioral Health Information System (IBHIS), FY 18-19.

Figure 1.3 presents the average number of MH services and TCM services attended by consumers in FY 18-19 by COD status and by provider type (i.e., countywide vs. DO).

Drug Medi-Cal Organized Delivery System (DMC-ODS) Rollout

The introduction of the DMC-ODS in Los Angeles County in CY 2017 has also resulted in a shift in DMH providers' conceptualization of COD treatment and particularly affected the scope of service SACs can provide. DMC-ODS is a new pilot program that was designed to improve treatment for SUDs and expand coverage to include additional SUD services and coordination with other health care services, including MH. Yet, clear guidelines regarding the role of SACs within DMH and the coordination of treatment between the substance use and MH departments are lacking.

Increasing access to evidence-based, integrated treatment models is relevant to the consumer population because many DMH consumers experience co-occurring trauma and substance use and currently do not receive services that attend to both of these issues concurrently. Despite the recent advances to align the MH and substance use systems using the DMC-ODS, many consumers are not receiving true integrated treatment from a single provider or treatment team. In FY 18-19, the number of adult (18 and up) consumers who had received a COD diagnosis in any setting was 37,511 and 18,506 of these consumers were seen in DO clinics. Of the adult consumers with a secondary SUD in DO clinics, 12% (N= 3,595) received at least one service from a SAC. Of the services provided by SACs (N = 18,748), 62% were rehabilitation services or crisis intervention. Their remaining services were TCM (11%), support services (7%), community outreach services (4%) or were non-billable or missing (14%). The 37 SACs who billed at least one service in FY 18-19 provided

services to an average of 99 consumers each over the course of the FY (range 3 to 353 consumers). The goal is for this PIP to improve services for consumers with CODs in DO clinics by offering greater access to integrated treatment models and comprehensive care teams. It is also anticipated that, if successful, this PIP's findings could be used to inform efforts for contracted providers and for other county MH departments aiming to improve COD services.

In FY 18-19, 2,175 of the 3,061 unique consumers (71%) that received an assessment and had at least one service by a SAC reported a history of a traumatic event at some point in their lives. The landmark Adverse Childhood Event (ACEs) study demonstrated that trauma that occurs early in life strongly correlates with later substance use (Centers for Disease Control, 2014). Individuals that continue to experience adversity in adulthood in the form of complex trauma, racial bias, and economic disparities have poorer outcomes and increased tobacco, alcohol, and marijuana use (Mersky, Topitzes, & Reynolds, 2013). Within the County of Los Angeles, 60.7% of residents have experienced at least one ACE and 13.5% have experienced four or more ACEs (Center for Youth Wellness, 2014). DMH consumers also have significant hospitalization and re-admissions rates as well as long inpatient stays. In FY 17-18, 32,833 adults had at least one hospitalization and 33.62% (N = 10,123) were re-hospitalized within 7 days. In FY 18-19, 29,749 adults had at least one hospitalization and 34.29% (N = 10,452) were re-hospitalized within 30 days. Given the high prevalence of trauma in the County of Los Angeles and that about a third of DMH consumers experience CODs, it is expected that increasing access to an evidence-based integrated, multidisciplinary treatment model addressing trauma and substance use will impact a significant portion of the consumer population. Evidence-based treatment models have been implemented in DMH since 2010 through Prevention and Early Intervention funding and several of the treatment models for adults have shown significant positive outcomes for consumers. Among the most widely-used EBPs in the DMH system for adults, Seeking Safety demonstrated a 36% improvement in mental health functioning and a 31% reduction in symptoms related to posttraumatic stress, group Cognitive Behavioral Therapy (CBT) for Depression demonstrated a 21% improvement in mental health functioning and a 42% reduction in symptoms related to depression, individual CBT for anxiety, depression, and trauma ranged from a 35% improvement in functioning for depression to a 42% improvement in functioning for trauma and a 53% reduction in symptoms for depression and a 59% reduction in symptoms for posttraumatic stress, and Interpersonal Therapy for Depression demonstrated a 31% improvement in mental health functioning and a 54% reduction in symptoms related to depression (Mental Health Services Act Annual Update Fiscal Year 2019-20).

What are the barrier(s) that the qualitative and/or quantitative data suggest might be the cause of the problem?

An internal Quality Assurance review in FY 18-19 also identified a significant portion of services as non-billable due to reflecting stand-alone substance use services. Of the services provided by SACs in FY 18-19 (N = 18,748), 14% (N = 2, 537) were non-billable services. The remaining services SACs provided in FY 18-19 were as

follows: 62% (N = 11, 612) rehabilitation services or crisis intervention, 11% (N = 2, 097) targeted case management or supported employment, 7% (N = 1, 404) support services, 5% (N = 896) community outreach services and 0.7% (N = 129) other. In order to provide true multidisciplinary, integrated treatment, this PIP's goal is to have the percentage of services focused on rehabilitation services increase. In particular, DMH would like to implement more evidence-based, integrated treatment groups to increase the quality of the services provided to consumers with CODs.

Substance Abuse Counselor Survey on Treatment for Co-Occurring Mental Health and Substance Use. To determine how SACs perceive their role, current environment, and training needs, the Substance Abuse Counselor Survey on Treatment for Co-Occurring Mental Health and Substance Use Disorders (hereafter referred to as "the SAC Outpatient Treatment Provider Survey", see Attachment 1A.2) was administered to all SACs in Quarter 1 of FY 18-19 and was completed by 37 SACs (90% response rate). The survey contained a mix of 15 Likert scale and seven open-ended items regarding basic demographics, certification status, previous training in and level of comfort in providing clinical approaches for CODs including several EBPs, understanding of the SAC role, collaboration with other treatment professionals, current treatment groups, and training needs. This survey was intended to provide important baseline information on SAC perceptions prior to providing the interventions and will be re-administered to inform the PIP process. Results from the survey indicated that a significant number of SACs do not feel comfortable using integrated EBPs for CODs involving trauma and do not have specific guidelines and mechanisms for communicating COD-related information to other treatment team members. Regarding training in EBPs, most SACs (N =34) reported having training in Motivational Interviewing (MI) and 73% felt very or extremely comfortable with MI. However, fewer SACs (N = 27) reported having training in trauma-related counseling and 65% felt very or extremely comfortable delivering this practice. In particular, for SS, an EBP that addresses trauma and substance use, 31 SACs reporting having some training in this practice and only 51% felt very or extremely comfortable delivering it. It is vital that SACs, along with other treatment team members, practice trauma-informed care as data show that 71% (2,175/3,061) consumers that received an assessment and had at least one service by a SAC in FY 18-19 endorsed a traumatic event at some point in their lives.

Regarding perception of their role, only 70% of SACs agreed or strongly agreed that they have a clear understanding of their duties and responsibilities and 65% agreed or strongly agreed that they felt part of an interdisciplinary team that provides co-occurring MH and substance use treatment. Seventy-three percent of SACs agreed or strongly agreed that they are aware of the MH plan problems, goals, and objectives for consumers with CODs but only 32% agreed or strongly agreed that the clinicians discuss substance use information when referring consumers to them. SACs operating within DMH have the opportunity to support consumers with CODs to receive integrated treatment by providing recovery-focused services and groups that simultaneously address substance use and MH. However, the SACs currently lack foundational knowledge in evidence-based interventions that address these two

target areas in a structured manner and coordination with a multidisciplinary treatment team regarding consumers with CODs.

The data presented above suggest that consumers with CODs have greater impairment in terms of hospitalizations and 7-day and 30-day re-admission rates. They also suggest that these individuals are more engaged in treatment, particularly when a SAC is involved in their care. Together, these data support the need for improved interventions for consumers with COD to prevent avoidable re-admissions and maximize opportunities when consumers are engaged in outpatient MH services. The SAC Outpatient Treatment Provider survey also offered important information regarding training gaps and the need for greater clarity around the role of SACs and better collaboration with treatment team members.

Who was involved in identifying the problem? (Roles, such as providers or enrollees, are sufficient; proper names are not needed.) Were beneficiaries or stakeholders who are affected by the issue or concerned with the issue/topic included?

The clinical PIP committee, which is composed of individuals who represent clinical and administrative departments within DMH, including the Quality, Outcomes and Training Division, Outpatient Services, Clinical Informatics, and Cultural Competency Unit, as well as community partners from the Department of Public Health and the RAND Corporation, identified the problem. Members of the clinical PIP committee were selected based on their familiarity, expertise, or interest in consumers with co-occurring MH and substance use programs. SACs, Supervising Staff, and Program Managers from 22 DO clinics, including American Indian Counseling Center, Antelope Valley Mental Health Center, Arcadia Mental Health Center, Augustus F. Hawkins Mental Health Center, Coastal Asian Pacific Islander Family Mental Health Center, Compton Family Service Center, Downtown Mental Health Center, East San Gabriel Mental Health Center, Edelman Mental Health Center, Harbor- UCLA Outpatient Program, Hollywood Mental Health Center, Long Beach Child and Adolescent Program, Men's Community Reintegration Program, Northeast Mental Health Center, Outpatient Services, Service Area 5-8, Rio Hondo Mental Health Center, Santa Clarita Valley Mental Health Center, San Fernando Valley Mental Health Center, South Bay Mental Health Services, West Central Mental Health Center, West Valley Mental Health Center, and the Women's Community Reintegration Program, participated in developing and implementing the PIP interventions and monitoring ongoing barriers. The confidentiality of the stakeholders involved in this PIP whom have lived experience will be maintained. The names of the individuals who contributed to the development of the PIP interventions will not be disclosed.

The clinical PIP topic was prompted by data review and the finding that clear service standards outlining the role and scope of SACs operating in DMH were not established following the DMC-ODS rollout. DMH program heads and contracted provider Quality Improvement (QI) leads reported a lack of clarity on the scope of acceptable services for SACs in Departmental Quality Improvement Council (QIC)

meetings. These monthly Departmental QIC meetings present a forum for DMH and contracted provider liaisons to review relevant data, provide feedback on the quality of MH services provided throughout Los Angeles County, generate QI projects, and express concerns or barriers regarding services. DMH supervisors and program managers raised similar concerns in Recovery on a Roll (ROAR) clinical management meetings and Supervisors' Forums. ROAR meetings are monthly meetings of DO clinic managers focused on addressing the needs of DO programs for adults.

Several of the SACs (Conswaila Jackson, Marina Barrios, Rosalva Ramirez, Vernell Sexton, Weslyn Harden) provided consultation on the development of the clinical PIP, particularly in refining the SAC treatment provider survey and tailoring the PIP interventions to the SAC population. Conswaila Jackson and Marina Barrios in particular attended monthly meetings and provided valuable input on ongoing barriers to providing integrated care and potential solutions (e.g., identifying lack of access to manuals and materials during COVID-19 and proposing procurement of electronic materials). The SACs also provided meaningful information regarding lack of teaming and encouraged involvement of other disciplines in PIP interventions, which guided the recent focus of the PIP.

Are there relevant benchmarks related to the problem? If so, what are they?

A study in Los Angeles County similarly demonstrated that, in three publicly-funded outpatient substance use treatment facilities, only half of the participants identified as having a COD had ever received MH treatment and for a third, it was their first episode of treatment (Watkins, et al., 2004). For individuals that received treatment for CODs in California in FY 16-17, only 28.3% received dual diagnosis treatment (Substance Abuse and Mental Health Services Administration, 2018a). DMH data suggest that the current estimate that 30% of consumers experienced CODs in CY 2017 does not reflect the true number of consumers who met criteria for and could benefit from integrated treatment for CODs. If consumers are not identified as meeting criteria for CODs at the outset of treatment, it is not likely that they will receive services focused on both the MH and SUD. These data highlight the importance of staffing multidisciplinary treatment teams that have the resources and training to adequately screen, diagnose, and create comprehensive treatment plans that target both disorders and are competent to treat CODs.

National data support that consumers with CODs are more likely to be hospitalized than consumers with either disorder alone. In a study of discharges from community hospitals across the U.S., the hospitalization rate for consumers with both a MH and a SUD was more than 20 times the rate for consumers with a SUD only and five times the rate for consumers with a MH disorder only (Coffey et al. 2001). This is in line with the DMH data that show that consumers with CODs had higher numbers of hospitalizations and higher 7-day and 30-day re-admission rates as compared to those without CODs in DO clinics as well as countywide. Treatment of SUDs during a crisis or hospitalization is often very limited and does not address MH and SUDs as chronic health problems that require ongoing treatment. Thus, it is important to

provide follow-up outpatient treatment after discharge from hospitalizations to engage consumers in services that are tailored to their needs and provide support for both the MH and SUDs.

Data from the Department of Health Care Services in California indicate that a small percentage (2.5%) of all adults that received specialty MH services in FY 17-18 were engaged in that they attended at least five visits over the FY. However, a higher percentage had continued service with no breaks longer than 90 days for under two years (13%) and two years or longer (12.9%). These percentages are similar in large counties, which are most similar to Los Angeles County (2.4% engagement, 13.2% service continuance for under two years, 12.4% service continuance 2 years or longer).

Step 1: Identifying the PIP Topic

WORKSHEET 2: DRAFTING THE AIM STATEMENT

What is the Aim Statement of this PIP? (The Aim statement should be concise, answerable, measurable and time bound.)

Will the provision of services using multidisciplinary, integrated, evidence-based treatment models for consumers with co-occurring mental health and substance use disorders result in a positive impact on their functioning (i.e., 7-day and 30-day hospital re-admission rates) and treatment engagement/retention (i.e., number of visits within 30 days and 90 days, average MH and TCM services) from pre-intervention to post-intervention across Fiscal Year 18-19 to 21-22?

Briefly state the improvement strategy that this PIP will use. (Additional information regarding the improvement strategy/intervention should be supplied in Step 6.)

The PIP improvement strategy is focused on consumer access to integrative, multidisciplinary treatment models. It is anticipated that these treatment models will directly address and mitigate the impact of substance use upon consumers' MH symptoms as well as enhance their ability to reduce substance use and improve MH functioning by coping and practicing safety in relationships, feelings, thoughts, and actions.

The PIP will be used to evaluate the effectiveness of integrative, multidisciplinary evidence-based treatment models for DMH consumers with CODs. It targets the current barriers to providing these treatment models in the DMH system, such as SAC lack of foundational knowledge in evidence-based interventions that address MH and substance use simultaneously, trauma-informed treatment that promotes recovery-oriented coping skills and lack of clear guidelines regarding how to practice these models within a multidisciplinary team. If successful, the PIP will be extended to improve outcomes of care by implementing additional integrated treatment models and extending these models to other age groups, staff roles, and contracted providers.

Who is the population on which this PIP focuses? Provide information on the study population such as age, length of enrollment, diagnosis, and other relevant characteristics of the affected population.

The clinical PIP efforts target all adult DMH beneficiaries (ages 18 years and over) with a history of recreational or illicit substance use and receiving Specialty Mental Health Services (SMHS) in a DO clinic. Please see Worksheet 3 for more detailed information on the study population.

What is the timeframe for this PIP, from concept development to completion? **Start** 02/2019 **End** 02/2022
Additional Information or comments

Step 2: Developing the Aim Statement

WORKSHEET 3: IDENTIFYING THE PIP POPULATION

Who is the population on which this PIP focuses? Provide information on the study population such as age, length of enrollment, diagnosis, and other relevant characteristics of the affected population. Please include data, sources of information and dates of sources.

The clinical PIP efforts target all adult DMH beneficiaries (ages 18 years and over) with a history of recreational or illicit substance use and receiving Specialty Mental Health Services (SMHS) in a DO clinic. The number of adult consumers, whom received at least one DMH outpatient service during FY 2018-19 and included an entry with an ICD-10 diagnosis in their diagnostic records across all episodes, was 164,767. Of these consumers, 23% (N = 37,874) received a COD diagnosis. Sixty-two percent (N = 23, 474) self-identified as Male, 38% (N = 14, 323) self-identified as Female, 0.09% (N = 34) self-identified as Transgender Male to Female, 0.08% (N = 32) self-identified as Transgender Female to Male and 0.03% (N = 11) were unknown. The majority of consumers were in the age range of 40 to 59 years (40%, N = 15, 167) followed by those ages 25 to 39 (36%, N = 13, 700), 18 to 25 (15%, N = 5, 528), and 60 and up (9%, N = 3, 479). Consumers represented the following ethnicities: 24% (N = 9, 216) Latino, 23% (N = 8, 698) Black/African American, 17% (N = 6, 476) White, 1.9% (N = 723) Two or more races, 1.7% (N = 625) Asian/Pacific Islander (API), 1.1% (N = 417) Other, 0.6% (N = 237) American Indian/Alaska Native (AI/AN), 17% (N = 6, 436) Unknown and 13% (N = 5, 084) Missing. The primary languages spoken were English (91%, N = 34, 533) and Spanish (6%, N = 2130). Most consumers were unemployed or not in the labor force (72%, N = 27, 224), 7.9% (N = 3, 008) were employed full or part time, 5.5% (N = 2, 090) were students, 0.7% (N = 282) were retired, and 14% (N = 5, 270) were unknown or missing. Data related to demographics for consumers in the PIP population in FY 18-19 were pulled from the IBHIS claiming tables in August 2019.

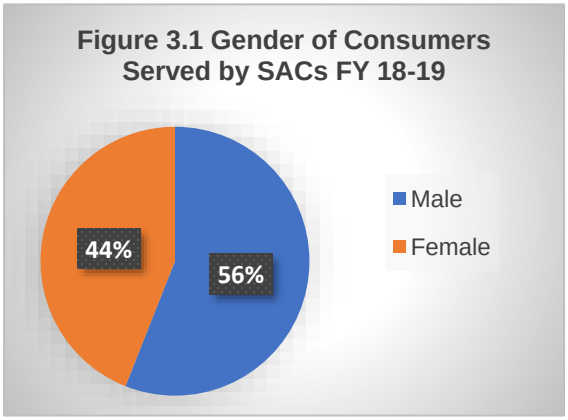
The number of adult consumers, whom received at least one DMH outpatient service during FY 2019-20 and included an entry with an ICD-10 diagnosis in their diagnostic records across all episodes, was 99,823. Of these consumers, 25% (N = 24,783) received a COD diagnosis. The most common secondary SUDs were: Other psychoactive substance dependence (N = 4,567), cannabis abuse (N = 4,474), alcohol dependence (N = 4,140), cannabis dependence (N = 3,413), and alcohol abuse (N = 2,298). Data related to demographics for consumers in the PIP population in FY 19-20 were pulled from the IBHIS claiming tables in August 2020.

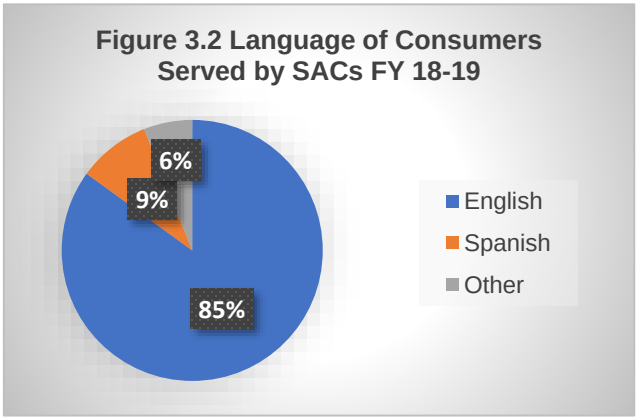
Sixty-two percent (N = 15,439) self-identified as Male, 37% (N = 9,276) self-identified as Female, 0.1% (N = 29) self-identified as Transgender Male to Female, 0.1% (N = 28) self-identified as Transgender Female to Male, and 0.04% (N = 11) were unknown. The majority of consumers were in the age range of 40 to 59 years (40%, N = 10,016) followed by those ages 25 to 39 (37%, N = 9,282), 18 to 25 (12%, N = 2,913), and 60 and up (9%, N = 2,205). Consumers represented the following

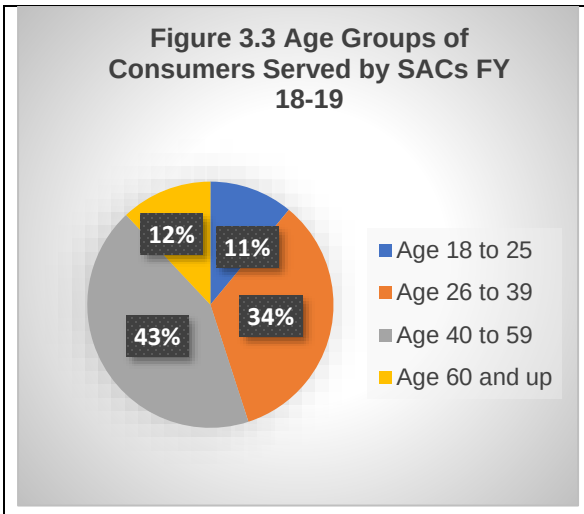
ethnicities: 22% (N = 5,412) Latino, 20% (N = 5,042) Black/African American, 15% (N = 3,701) White, 1.7% (N = 723) Two or more races, 1.5% (N = 430) Asian/Pacific Islander (API), 1.0% (N = 251) Other, 0.6% (N = 138) American Indian/Alaska Native (AI/AN), 16% (N = 3,849) Unknown and 23% (N = 5,588) Missing. The primary languages spoken were English (91%, N = 22,437) and Spanish (6%, N = 1471). Most consumers were unemployed or not in the labor force (70.4%, N = 17,457), 9.1% (N = 2,262) were employed full or part time, 5.0% (N = 1,236) were students, 0.5% (N = 135) were retired, and 15% (N = 3,693) were unknown or missing.

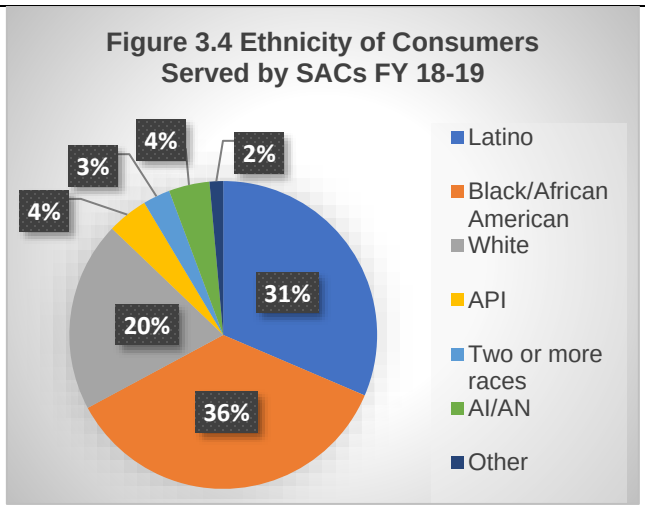
Consumers served by Substance Abuse Counselors (SACs) in Directly Operated Clinics (DOs) in FY 18-19

Approximately 3,595 adult consumers received at least one service from the SACs in FY 18-19. Demographics are presented in figures 3-6 below. Of these consumers, 49% (N = 1,771) were diagnosed with a secondary SUD. Fifty-six percent (N = 2,014) self-identified as Male, 44% (N = 1,571) self-identified as Female, 0.14% (N = 5) self-identified as Transgender Female to Male, 0.05% (N = 2) self-identified as Transgender Male to Female, and 0.08% (N = 3) were unknown. Most consumers were in the age range of 40 to 59 years (43%, N = 1, 533) followed by ages 26 to 39 (34%, N = 1,235), 60 and up (12%, N = 417), and 18 to 25 (11%, N = 410). The majority of the consumers were Latino (32%, N = 1,134), followed by Black/African American (23%, N = 829), White (15%, N = 540), API (2%, N = 78), Two or more races (2%, N = 73), AI/AN (1%, N = 48) and Other (1% N = 47). The remaining were unknown (24%, N = 846). The primary languages spoken were English (85%, N = 3,097) and Spanish (9%, N = 341). Most consumers were unemployed or not in the labor force (70%, N = 2,526), 9.2% (N = 334) were employed full or part time, 4.8% (N = 171) were students, 0.7% (N = 25) were retired, and 15% (N = 539) were unknown or missing. During FY 18-19, 12% (N = 435) of these consumers had at least one hospitalization and 19% (N = 82) of consumers were re-hospitalized within 7 days and 29% (N =124) were re-hospitalized within 30 days. The average length of inpatient days across these consumers was 6.33 and there were 2.43 hospitalizations on average per consumer. These numbers are also represented in Figures 3.1-3.4 below.



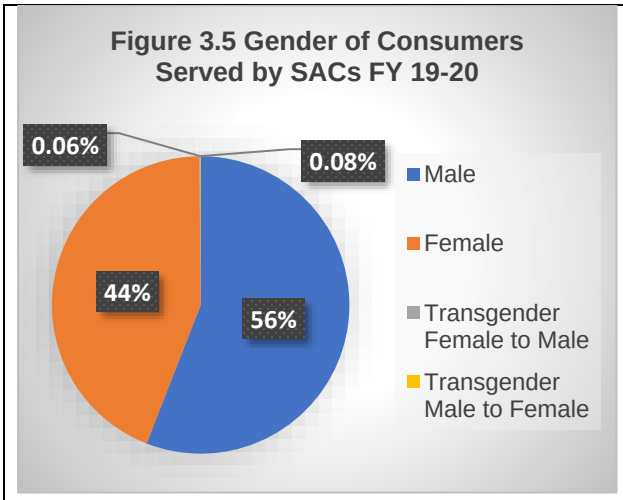


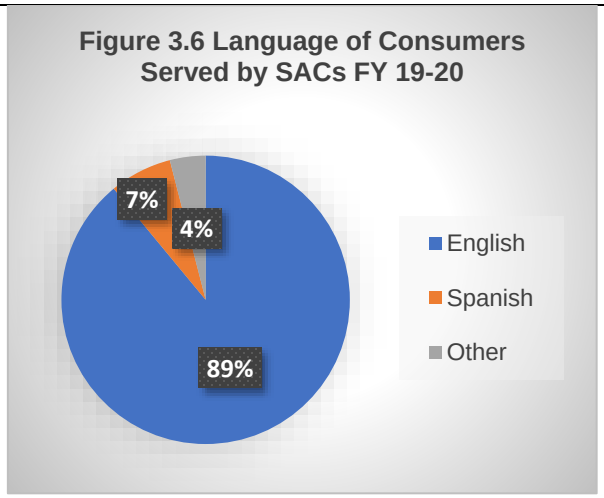


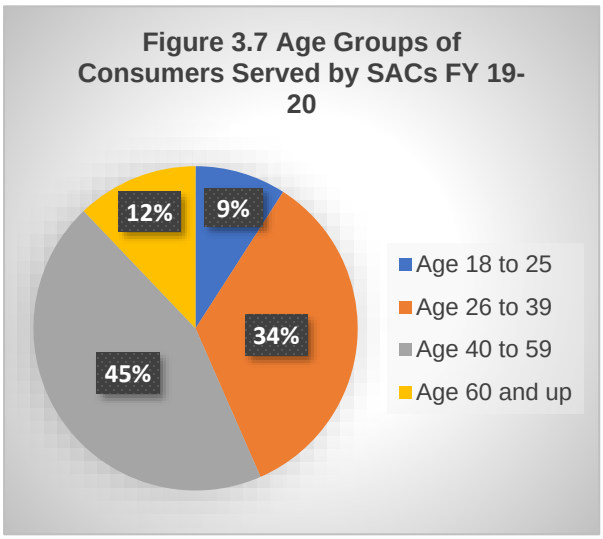


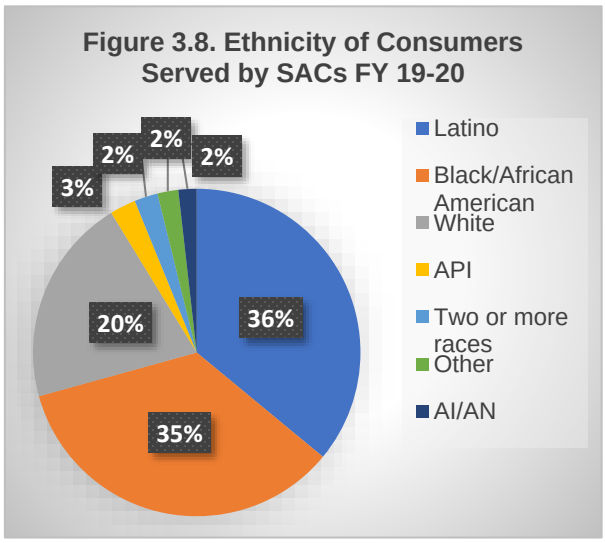
Consumers Served by Staff that Participated in PIP Interventions FY 19-20

The 37 SACs that attended either the August 2019 SS training, October 2019 SS training, UCLA Extension Fall 2019 course, and the UCLA Extension Winter 2020 course as well as the 2 staff that implemented the Integr8Recovery groups represented 23 DO clinics and served 3,360 unique consumers in the quarter prior to the training in FY 19-20. Of these consumers, 56% percent (N = 1,886) self-identified as Male, 44% (N = 1,468) self-identified as Female, 0.08% (N = 3) self-identified as Transgender Female to Male, and 0.06% (N = 2) self-identified as Transgender Male to Female. The majority of consumers were in the age range of 40 to 59 years (44%, N = 1,487) followed by ages 26 to 39 (34%, N = 1,138), 60 and up (12%, N = 404), and 18 to 25 (9%, N = 319). The majority of the consumers were Latino (28%, N = 951), followed by Black/African American (27%, N = 909), White (16%, N = 521), API (2%, N = 71), Two or more races (1.8%, N = 60), Other (1.6%, N = 53), and AI/AN (1.4%, N = 47). The remaining were unknown (22%, N = 747). The primary languages spoken were English (89%, N = 3007) and Spanish (7%, N = 224). Most consumers were unemployed or not in the labor force (73%, N = 2,466), 9% (N = 290) were employed full or part time, 3% (N = 110) were students, 0.7% (N = 25) were retired, and 14% (N = 468) were unknown or missing. Fifty percent (N = 1,673) received a secondary SUD diagnosis. These numbers are also represented in Figures 3.5-3.8 below.









Will all enrollees be included in the PIP?

☐ **Yes**

☒ **No**

If no, who will be included? How will the sample be selected?

The sample for this PIP consists of consumers who received at least one outpatient service from those individuals that participated in each of the PIP interventions (i.e., Seeking Safety, UCLA Extension Fall 2019 course, UCLA Extension Winter 2020 course, Integr8Recovery groups). The required sample size based on the population of all adult consumers in DO clinics who received at least one service from a SAC in FY 18-19 (N = 3,595) with a 95% confidence level and 5% margin of error is 348 consumers. The required sample size based on the population of all adult consumers in DO clinics who received at least one service from a staff member that participated

in a PIP intervention in FY 19-20 (N = 3,360) with a 95% confidence level and 5% margin of error is 345 consumers.
Additional Information or comments

Step 3: Identifying the PIP Population

WORKSHEET 4: DESCRIBING THE SAMPLING PLAN

If the entire population is being included in the PIP, skip Step 4.

If the entire population is NOT being included in the PIP, complete the following:

Describe the sampling frame for the PIP. **A sampling frame is the list from which the sample is drawn. It includes the universe of members of the target PIP population, such as individuals, caregivers, households, encounters, providers, or other population units that are eligible to be included in the PIP. The completeness, recency, and accuracy of the sampling frame are key to the representativeness of the sample** The sample for this PIP consists of consumers who received at least one outpatient service from those individuals that participated in each of the PIP interventions (i.e., Seeking Safety, UCLA Extension Fall 2019 course, UCLA Extension Winter 2020 course, Integr8Recovery groups).
Specify the true or estimated frequency of the event. 23% (N = 37,874) of the 164,767 adult consumers who received at least one DMH outpatient service during FY 2018-19 and included an entry with an ICD-10 diagnosis in their diagnostic records across all episodes, received a COD diagnosis. In FY 18-19, 9% (N = 3,595) of those with a COD diagnosis (N = 37,874) received at least one service from a SAC. Twenty-five percent (N = 24,783) of the 99,823 adult consumers who received at least one DMH outpatient service during FY 2019-20 and included an entry with an ICD-10 diagnosis in their diagnostic records across all episodes, received a COD diagnosis. In FY 19-20, 14% (N = 3,360) of those with a COD diagnosis (N = 24,783) received at least one service from a SAC.
Determine the required sample size to ensure that there are a sufficient number of enrollees taking into account non-response, dropout, etc. The required sample size based on the population of all adult consumers in DO clinics who received at least one service from a SAC in FY 18-19 (N = 3,595) with a 95% confidence level and 5% margin of error is 348 consumers. The required sample size based on the population of all adult consumers in DO clinics who received at least one service from a staff member that participated in a PIP intervention in FY 19-20 (N = 3,360) with a 95% confidence level and 5% margin of error is 345 consumers.
State the confidence level to be used. 95% confidence level
State the margin of error. 5% margin of error

Additional Information or comments

Step 4: Describing the Sampling Plan

WORKSHEET 5: SELECTING PIP VARIABLES AND PERFORMANCE MEASURES

The questions below can be answered generally. Please complete the tables below for specific details.

What are the PIP variables used to track the intervention(s)? The outcome(s)? Refer to the tables 5.1 – 5.3 for details.

The PIP variables that are used to track the interventions are utilization of Seeking Safety in terms of groups and individual consumers, utilization of Integr8Recovery groups, and application of the UCLA Extension courses through chart review. The PIP variables used to track the outcomes are detailed below in the performance measures section.

What are the performance measures? Describe how the Performance Measures assess an important aspect of care that will make a difference to beneficiary health or functional status?

There are six main performance measures that have been tracked on a quarterly basis: 1) 7-day hospital re-admission rates, 2) 30-day hospital re-admission rates, 3) Treatment engagement rates (i.e., the percentage of consumers who attend at least two services within 30 days), 4) Treatment retention rates (i.e., the percentage of consumers who attend at least six services within 90 days), 5) Average Mental Health Services (MHS) attended, and 6) Average Targeted Case Management (TCM) services attended. The 7-day and 30-day hospital re-admission rates assess the functional status of consumers receiving integrated treatment for CODs in terms of their ability to self-manage and maintain wellness. It is hypothesized that the provision of integrated, evidence-based treatment services that focus on practicing safety in relationships, feelings, thoughts, and actions to consumers with CODs would lead to improved functional outcomes for these individuals due to increased engagement with the outpatient treatment team. The engagement and retention rates as well as average mental health and targeted case management services assess the level of connection that consumers have with their treatment teams, which impacts their ability to recover. Engagement and retention rates capture those consumers that are regularly attending their service appointments and may have a stronger link to their treatment teams. However, there may be some consumers that are interested in attending appointments but are attending with less regularity. These four different indicators give indication to the level of involvement in services and provision of specialty MH services as opposed to TCM, as a goal of the PIP is also to increase individual and group rehabilitation services provided. The aim of implementing integrated treatment models is to encourage greater involvement in outpatient care and reinforced treatment attendance for consumers with CODs. Consumer satisfaction has not yet been tracked as a formal performance measure. However, DMH would like to include measures of beneficiary satisfaction as the PIP continues, particularly as part of a collaboration with Substance Abuse Prevention and Control of

the Department of Public Health, which uses the Treatment Perception Survey in dually-contracted clinics.
What is the availability of the required data? The required data is readily available in the IBHIS data warehouse, which stores all of the information that is recorded in the electronic health record. Data pertaining to different IBHIS forms and functions are housed in separate data tables (essentially datasets that contain a specific set of variables). The data for the clinical PIP was taken from the claims, group appointment, and hospitalization record tables. Additional data is available from surveys and tools administered as part of the PIP.
Additional Information or comments

TABLE 5.1 VARIABLE(S) AND INTERVENTION(S)

Goal	(Independent) Variable	Intervention	Performance Measure (Dependent Variable)
Decrease frequency of hospitalizations in consumers with co-occurring mental health and substance use	Application of Seeking Safety, Integr8Recovery groups, and interventions from UCLA extension course	Seeking Safety, UCLA Extension course, Integr8Recovery groups	1. 7-day re-hospitalization rates 2. 30-day re-hospitalization rates
Increase engagement and retention in outpatient services for consumers with co-occurring mental health and substance use	Application of Seeking Safety, Integr8Recovery groups, and interventions from UCLA extension course	Seeking Safety, UCLA Extension course, Integr8Recovery groups	1. Engagement rate (number of consumers who received two or more MH or TCM services within 30 days of the initial visit with a SAC out of those that received at least one service with a SAC) 2. Retention rate (number of consumers who received six or more MH or TCM within 90 days of the initial visit with a SAC out of those that received at least one service with a SAC 3. Average number of mental health services attended

			4. Average number of targeted case management services attended

TABLE 5.2 SOURCES OF INDEPENDENT AND DEPENDENT VARIABLES

	Variable	Source of Data	Availability of Data
1	Utilization of Seeking Safety	IBHIS claiming and group appointment data	Accessed monthly
2	Application of UCLA Extension course learning	Chart review of progress notes for individual and group rehabilitation services	Chart review performed for the Fall 2019 class in quarter following intervention
3	Utilization of Integr8Recovery groups	IBHIS claiming and group appointment data	Accessed monthly
4	Psychiatric Inpatient Hospital 7-Day Readmission Rates	IBHIS claiming and hospitalization tables	Quarterly
5	Psychiatric Inpatient Hospital 30-Day Readmission Rates	IBHIS claiming and hospitalization tables	Quarterly
6	Treatment engagement (% of consumers seen with 2 or more services within 30 days)	IBHIS claiming data	Quarterly
7	Treatment retention (% of consumers seen with 6 or more services within 90 days)	IBHIS claiming data	Quarterly
8	Average Mental Health Services Attended	IBHIS claiming data	Quarterly
9	Average Targeted Case Management Services Attended	IBHIS claiming data	Quarterly

Step 5: Selecting the PIP Variables and Performance Measures

WORKSHEET 6: DESCRIBE IMPROVEMENT STRATEGY (INTERVENTION) AND IMPLEMENTATION PLAN

Answer the general questions below. Then provide details in the table below.

Describe the improvement strategy/intervention.

The improvement strategy is focused on delivering integrated treatment models to consumers with CODs to directly address and mitigate the impact of substance use upon consumers' MH symptoms as well as enhance their ability to reduce substance use and improve MH functioning by coping and practicing safety in relationships, feelings, thoughts, and actions. In Phase I (or Year I) of this project, interventions included implementing treatment strategies targeting co-occurring MH and substance use problems as well as in Seeking Safety (SS), a specific evidence-based practice (EBP) for trauma and substance use. In Phase II (or Year II) of this project, interventions aimed to focus on improved teaming and use of multidisciplinary groups.

What was the quantitative or qualitative evidence (published or unpublished) suggesting that the strategy (intervention) would address the identified barriers and thereby lead to improvements in processes or outcomes?

The Substance Abuse and Mental Health Services Administration (SAMHSA) defines CODs as the coexistence of both a MH and a SUD. CODs are becoming increasingly common in the United States (U.S.). In 2017, 8.5 million U.S. adults (3.4% of those surveyed) met criteria for a COD (McCance-Katz, 2019). In California alone, the number was close to one million individuals (3.3% of those surveyed). CODs are associated with multiple negative outcomes, including high rates of relapse, hospitalization, homelessness, and suicidal behavior (Drake et al., 2001; Childress et al., 2017; Esposito-Smythers & Spirito, 2004). Given their high prevalence and significant negative impact, SAMHSA has established the treatment of co-occurring MH and SUD as a national behavioral health priority (Strategic Plan Fiscal Year (FY) 2019 - FY 2023).

Currently, there is a concerning gap in COD treatment for Californians with 95.1% of individuals with COD receiving no treatment for either their MH or SUD as compared to national rates (91.7%, McCance-Katz, 2019). Even when individuals with CODs receive services, it is rare that these services integrate MH and substance use into a comprehensive treatment plan that addresses both disorders simultaneously ("integrated treatment"; Drake et al. 2001). Significant research supports the efficacy of integrated treatment models for COD (Drake, Mueser, Brunette, & McHugo, 2004; Drake, O'Neal, & Wallach, 2008; Gatz et al. 2007; Mills et al., 2012), including that they demonstrate reductions in important functional outcomes, such as psychiatric hospitalizations and arrests, (Mangrum, Spence, & Lopez, 2006). Thus, it is vital to ensure that multidisciplinary, integrated treatment methods are widely implemented throughout behavioral health service providers.

Role of the Substance Abuse Counselors (SACs)

DMH currently employs approximately 41 SACs to establish multidisciplinary teams capable of providing integrated treatment for CODs. Eleven of these staff members were hired using Federal SAMHSA Community Mental Health Services Block Grant (MHBG) dollars to further support integration of COD service delivery in FY 17-18. These employees were strategically placed in DO adult outpatient programs that had not previously had a SAC as part of their interdisciplinary team. At the initiation of the PIP, 25 of the SACs focused on adult consumers. The role of the SACs is to support the work of licensed clinicians and multidisciplinary treatment teams to: formulate and include COD-related interventions as integral components of the consumer treatment plan, provide engagement, education, linkage and referrals, and implement EBPs focused on COD populations. SACs are expected to have the ability to describe and understand MH disorders that frequently co-occur with substance use as well as identify symptoms of MH disorders and the impact of substance use on MH disorders. These expectations are specific to DMH as a provider of specialty mental health services (SMHS) and the SACs vary in their experience providing services that focus on the mental health component and the influence of substance use on mental health symptoms. Given that SAC training programs do not frequently provide training in EBPs that address co-occurring MH and substance use problems (Olmstead, Abraham, Martino, & Roman, 2012; Kerwin, Walker-Smith, & Kirby, 2006), it is important that DMH ensures the competency of these individuals to provide these treatment models by offering ongoing training.

Providing integrated treatments to consumers with CODs is particularly important because they have been shown to demonstrate a number of positive outcomes including better treatment retention and engagement, fewer days in the hospital, decreased hospitalizations, greater functioning, and reduced psychopathology and substance use (Drake et al, 2004; SAMHSA, 2009). Integrated treatment models focused on co-occurring trauma and substance use have also indicated an increase in consumer's ability to cope by address the consumers' substance use as a maladaptive coping strategy and focus on developing robust coping skills to aid in recovery (Gatz et al., 2007; Brown, Read, & Kahler, 2003). Despite a research push to encourage partnerships between substance abuse and MH treatment providers and increase the availability of integrated treatment, research indicates that many SAC educational programs do not provide training in evidence-based integrated interventions (Kerwin, Walker-Smith, & Kirby, 2006). Research also indicates that SACs do not often obtain EBP training through their employers after graduation. In fact, Olmstead et al. (2012) found that, while the majority of a nationally representative sample of substance abuse treatment centers in the U.S. reported using cognitive-behavioral therapy (CBT) and MI, significantly fewer provided counselors with formal training in the EBP and under half of the centers included supervised training cases as part of the training. It is critical to include ongoing supervision and consultation for EBPs as part of the treatment plan as research shows that ongoing consultation is related to higher therapist adherence and skill in delivering EBPs rather than training alone (Beidas, Edmunds, Marcus, & Kendall,

2012). These data demonstrate that DMH can improve the services currently offered to DMH consumers with CODs by training staff in integrated EBPs that concurrently address MH and substance use and ensuring that staff skills are refined through ongoing consultation. The goal is for this training and consultation to provide greater access to models tailored to consumers with CODs.

The COD Champions meetings are a series of didactic trainings and case consultations designed for SACs that address the most common MH disorders that co-occur with SUDs (e.g., trauma, depression, schizophrenia, anxiety, Bipolar Disorder). They are presented by subject matter experts (SMEs) from the UCLA Integrated Substance Abuse Programs (ISAP) and provide information on the prevalence of each disorder, the specific interplay between that disorder and substance use, and evidence-based interventions that have shown to be successful for that particular disorder (e.g. cognitive restructuring and MI for depression). Each didactic training also includes case examples to model appropriate interventions for COD. The case consultation portion gives SACs an opportunity to present their treatment plan for specific DMH consumers and receive feedback from SMEs regarding future steps. This training series was the first step toward addressing the SACs' lack of foundational knowledge regarding evidence-based, integrated treatment models. The continuous quality improvement process (CQI) involved conducting a Plan-Do-Study-Act (PDSA) cycle to evaluate consumer functioning following the first months of implementation of this series. As is noted in more detail in the PDSA document (see Attachment 1A.5), chart review results determined that SACs who initially attended these meetings were using some of the interventions with some consumers but were not tailoring these interventions to the consumer's individual MH disorder. These data suggested that further in-depth training in evidence-based integrated treatment models was needed and that it should reach a greater number of SACs.

The second step of the plan to address the lack of foundational knowledge regarding evidence-based, integrated treatment models is to introduce a more comprehensive, full-day training in a specific EBP. SS is an integrated EBP that targets CODs and addresses the intersection between traumatic experiences and substance use, which often co-occur at high rates (Najavits & Hien, 2013; Gielen, Havermans, Tekelenburg & Jansen, 2012; Torchalla, Nosen, Rostam, & Allen, 2012). It is a present-focused counseling model that focuses on helping those with CODs attain safety from trauma and/or substance abuse. It has demonstrated improved outcomes for both trauma and substance use for a number of populations, including men and women in community MH and outpatient settings (Gatz et al. 2007; Hien et al, 2009; Hien et al., 2015). It is also cost-effective when compared to other substance use treatment models (Washington State Institute for Public Policy, 2018). SS was first implemented in DMH in 2010 as a prevention and early intervention (PEI) practice through the Mental Health Services Act (MHSA). Since the rollout of the practice, there has been a 32% improvement in overall MH functioning as measured by the Outcome Questionnaire (N = 935) and 55% improvement in symptoms related to posttraumatic stress as measured by the Posttraumatic Stress Disorder (PTSD) Checklist for DSM-5 (N = 172) for PEI consumers. SS is also a flexible model that

does not require a specific degree or license to administer and it can be conducted in a group or individually. SACs, as well as members of the multidisciplinary team, will be trained to administer SS for consumers with CODs. Additionally, psychologists and program managers are creating work groups to assure services are delivered in an integrated, multidisciplinary manner. Although this practice is delivered in PEI programs and has demonstrated positive outcomes in those programs, it has not yet been implemented as an EBP for SACs. A portion of this project will involve monitoring the application of SS interventions as part of the SACs' practice. As SS is a flexible model, SACs can choose to incorporate a selected portion of the 25 treatment topics as they relate to consumers' individual needs and do not need to implement the full model for each consumer.

The next step of the plan included the creation of a 10-week UCLA Extension course titled "Role and Function of Substance Use Disorder Counselors When Working with a Clinical Multidisciplinary Team to Treat Co-Occurring Disorders." This course was held in Fall 2019 and Winter 2020 and focused on the SAC's role on a multi-disciplinary treatment team where MH issues are addressed along with substance use interventions. Integrating MH treatment during substance abuse treatment has been found to significantly reduce depressive symptoms and number of drinking days in consumers at three- and six-month follow-ups (Watkins et al., 2011). Consumers who engage in this type of treatment have a high rate of retention and greater perceptions of improvement (Hepner, Hunter, Paddock, Zhou, & Watkins, 2011). MH treatment delivered by SACs improves MH symptoms and substance use among a wide range of consumers differing in gender, education, referral status, and type of substance abuse (Hunter, Paddock, Zhou, Watkins, & Hepner, 2013).

Following the UCLA extension course, there was plan to implement multidisciplinary integrated care groups so that SACs could practice treatment planning and simultaneous use of mental health and substance use interventions alongside clinicians and clinical pharmacists. Integrated, multidisciplinary treatment models have been shown to decrease both MH symptoms (Drake, Mueser, Brunette, & McHugo, 2004; Drake, O'Neal, & Wallach, 2008; Gatz et al. 2007; Mills et al., 2012) as well as make significant improvements in functional outcomes such as reductions in psychiatric hospitalizations and arrests (Mangrum, Spence, & Lopez, 2006; Chandler & Spicer, 2006). SS in particular has been used to successfully engage individuals with CODs in treatment in similar community MH settings (Gatz et al. 2007; Hien et al, 2009; Hien et al., 2015). By concurrently addressing trauma, mood, and substance use in an integrated treatment model for COD that targets consumers' ability to cope and practice safety, we expect to see increases in the number of direct care services delivered to COD consumers, decreases in hospital readmission rates in psychiatric inpatient settings as well as improved treatment engagement and retention.

Does the improvement strategy address cultural and linguistic needs? If so, in what way?

Yes, the integrated care protocols that we are implementing as part of the improvement strategy are flexible to address cultural and linguistic needs. Seeking Safety is available in multiple threshold languages of Los Angeles County, including Spanish, Chinese, Korean, Vietnamese and Arabic. Substance Abuse Counselors have also reported adapting the quotations that are reviewed at each Seeking Safety session to their client populations. For example, using songs or lyrics that might be more relevant for TAY-aged consumers. At the American Indian Counseling Center, the SAC incorporated American Indian cultural aspects into group sessions (e.g., talking circle using eagle feather, burning sage, conducting groups at Southwest Indian Museum).

When and how often is the intervention applied?

The interventions have varied in terms of how often they are applied. Seeking Safety was initially applied with a small group of consumers and there were several efforts to increase utilization. The Seeking Safety groups are typically held on a weekly basis and are open to new consumers. Individual use of Seeking Safety was also typically applied weekly and topics were selected based on individual consumers' needs (e.g., focusing on the Safety topic at the start of treatment to ensure stability before progressing to other topics). Integr8Recovery groups are also held on a weekly basis at one DO, had started with at another DO clinic and was planned to roll out at an additional DO clinic before being disrupted by the COVID-19 pandemic. As of mid-March 2020, all groups in DO clinicals were paused to prioritize urgent services for those most in need and to pursue technological options that would best serve groups. Groups began to resume in May 2020 with the rollout of the VSee telehealth platform.

Who is involved in applying the intervention?

SACs were the initial focus of the PIP and they have provided the Phase I interventions, including application of the COD Champions Meetings, Seeking Safety, and application of the UCLA Extension course teachings. With the start of multidisciplinary treatment groups, Integr8Recovery, clinical social workers and clinical pharmacists have also been involved in implementing interventions.

How is competency/ability in applying the intervention verified?

Competency and ability in applying the intervention was verified by providing several trainings on the interventions and offering continued support. There were two initial SS trainings in August and October 2019 and this was followed by a series of 15 consultation calls in November open to all of the participants across both of the SS trainings. The consultation calls aimed to build on the trainee participants' learning with consultation on application to specific consumers and topics related to specialized populations. There were two UCLA Extension courses offered in Fall 2019 and Winter 2020 to provide the expanded curriculum to as many SACs as possible. This curriculum included role plays and case examples to have SACs apply their

knowledge and practice integrated treatment planning in real time with immediate instructor and peer feedback. Integr8Recovery groups include an initial planning meeting and trainings are planned to assist new clinics with the rollout of groups.
How is the MHP/DMC-ODS ensuring consistency and/or fidelity during implementation of the intervention (i.e., what are the process indicators)? For Seeking Safety, the Seeking Safety Brief Adherence Scale was used to ensure fidelity. This was adapted from the developer's version of the Adherence Scale in that it was used as a self-report. For the UCLA Extension Course, a chart review was conducted to assess fidelity to treatment planning and the specific interventions (i.e., motivational interviewing, cognitive-behavioral therapy, medication-assisted treatment). For Integr8Recovery groups, fidelity tools will be developed according to the different components of the group delivered by each staff member.
Additional Information or comments

Complete this table and add (or attach) other tables/figures/charts as appropriate.

TABLE 6.1 IMPROVEMENT STRATEGY SUMMARY

	Intervention	Intervention Target Population	Date (MM/YYYY) Intervention Began	Frequency of Intervention Application	Corresponding Process Indicator(s)
1	Co-occurring Disorder Champions Meetings	Consumers served by SACs attending COD Champions meeting	2/27/19 – 7/24/19	Monthly	COD Champion chart review
2	Seeking Safety	Consumers with co-occurring trauma and substance use	9/3/19	Weekly	SS knowledge test, SS Brief Adherence Scale
3	Application of UCLA Extension Course	Consumers served by SACs attending the UCLA Extension Course in Fall 2019 and Winter 2020	9/25/19	Daily to Weekly	UCLA Extension Course Chart Review
4	Dissemination of Quality Assurance Bulletin on Treatment for Consumers with CODs	Consumers with CODs served by staff from multiple disciplines	6/8/20	One-time	

5	Integr8Recovery groups	Consumers with CODs served by staff from multiple disciplines	1/16/20	Weekly	Integr8Recovery Weekly Check in, Adherence Measure
6	Dissemination of updated policy on Assessment and Treatment of Co-Occurring Substance Abuse	Consumers with CODs served by staff from multiple disciplines	TBD	--	
7	Clinical Workgroups for CODs	Consumers with CODs served by staff from multiple disciplines	TBD	--	
8	Coordination with the Department of Public Health (DPH), DMC-ODS	Consumers with CODs served by dually-contracted organizations	TBD	--	
9	RAND Alcohol Use Disorder Toolkit	Consumers with co-occurring mental health and alcohol use disorders	TBD	--	
10	RAND Opioid Use Disorder Toolkit	Consumers with co-occurring mental health and opioid use disorders	TBD	--	

TABLE 6.2 PROCESS INDICATORS

#	Goal	Process Indicator	Source of Data	Intervention
1	Increase SAC understanding of their role and partnering with others on the treatment team regarding consumers with CODs	Total number of SACs responding that they agree or strongly agree with role and teaming items on the Outpatient Treatment Provider Survey	Substance Abuse Counselor Survey on Treatment for Co-Occurring Mental Health and Substance Use.	UCLA Extension Course focus on teaming and treatment planning, Integr8Recovery groups
2	Increase SAC level of comfort with integrated care for CODs	Total number of SACs responding that they feel very or extremely comfortable with SS	Substance Abuse Counselor Survey on Treatment for Co-Occurring Mental Health and Substance Use.	Seeking Safety training

3	Increase number of staff trained in integrated treatment for CODs	Total number of trainees who attended the intervention trainings	Attendance logs for trainings	Seeking Safety training, UCLA Extension course, Integr8Recovery groups
4	Increase in knowledge of SS Model	Number of correct answers on the SS Knowledge Assessment	Seeking Safety knowledge tests	Seeking Safety training
5	Ensure fidelity to the SS model following initial training	Total score on the adapted SS Brief Adherence Scale per session after training and consultation calls	Seeking Safety Brief Adherence Scale	Seeking Safety consultation calls
6	Increase in knowledge of mental health disorders and interventions to address CODs	Number of correct answers on the UCLA Extension Course Knowledge Assessment	UCLA Extension Course Knowledge Assessment	UCLA Extension Course Fall 2019 and Winter 2020
7	Ensure fidelity to the Integr8Recovery model	Measure to be developed	Measure to be developed	Integr8Recovery groups

Interventions

Phase I

Co-Occurring Disorder (COD) Champions Meetings

The COD Champions meetings were interactive monthly, two-hour meetings designed to enhance the knowledge and skills needed to conduct effective early recovery skills counseling groups with consumers with co-occurring substance use and MH disorders. The first hour of the meeting is devoted to a didactic training on topics related to treatment of CODs presented by trainers from the UCLA Integrated Substance Abuse Programs (ISAP). The second hour is devoted to SACs' case presentations on DMH consumers. The objectives of this training series are to:

1. Identify the prevalence of co-occurring substance use and mental health disorders
2. Identify symptoms of mental health disorders within a clinical setting
3. Describe evidence-based practices that are effective in working with clients with CODs
4. Demonstrate ability to link the multiple dimensions of consumer assessment including substance use issues to individualized treatment plans with primary focus on mental health condition

Meeting Topics and Attendance

- February 27, 2019
    - Topic(s): American Society of Addition Medicine (ASAM) Case Scenarios and Case Studies including consumers with trauma, depression, conduct

problems, substance use disorders, and physical health problems; Evidence for 12-Step Facilitation presented by Grant Hovik, M.A. and Albert Hasson
    - Attended by 5 SACs
- March 27, 2019
    - Topic(s): Co-Occurring Schizophrenia and Substance Use Disorders presented by Grant Hovik, M.A. and Albert Hasson
    - Attended by 4 SACs
- April 24, 2019
    - Topic(s): Co-Occurring Anxiety and Substance Use Disorders presented by Grant Hovik, M.A. and Albert Hasson
    - Attended by 6 SACs
- May 22, 2019
    - Topic(s): Co-Occurring Bipolar Disorder and Substance Use Disorders presented by Grant Hovik, M.A. and Albert Hasson
    - Attended by 4 SACs
- June 26, 2019
    - Topic(s): Co-Occurring Trauma and Post-Traumatic Stress Disorder and Substance Use Disorders presented by Grant Hovik, M.A. and Albert Hasson
    - Attended by 4 SACs
- July 24, 2019
    - Topic(s): Co-Occurring Depression and Substance Use Disorders presented by Dr. Scott Hunter
    - Attended by 3 SACs

As these meetings were of short duration and targeted multiple common MH disorders that co-occur with SUDs in a condensed time, they were not sufficient for training SACs to practice a specific integrated treatment model competently. Following a PDSA focused on chart review of those SACs that regularly attended the COD champions meetings, it was determined that the SACs were continuing to use more general interventions and would benefit from more comprehensive training in an integrated EBP that targets a specific MH disorder and co-occurring substance use problems. As SS has already demonstrated positive outcomes in the DMH system and targets the large percentage of the COD consumers who have experienced trauma (72%), it was selected as the next training intervention.

<u>Seeking Safety (SS) Training</u>

SS is a present-focused, evidence-based treatment that simultaneously addresses trauma and substance use. It offers a coping skills approach to help consumers with COD attain safety from trauma and/or addiction and can be conducted in a group or individual format. The 25 treatment topics, each representing a safe coping skill relevant to trauma and substance problems, are highly flexible and providers can tailor them to consumers' individual needs. Topics address the following cognitive, behavioral, interpersonal, and case management domains:

- <u>Interpersonal topics</u>: *Honesty, Asking for Help, Setting Boundaries in*

Relationships, Getting Others to Support Your Recovery, Healthy Relationships, Community Resources

- Cognitive topics: *PTSD: Taking Back Your Power, Compassion, When Substances Control You, Creating Meaning, Discovery, Integrating the Split Self, Recovery Thinking*
- Behavioral topics: *Taking Good Care of Yourself, Commitment, Respecting Your Time, Coping with Triggers, Self-Nurturing, Red and Green Flags, Detaching from Emotional Pain (Grounding)*
- Combination topics: *Introduction/Case Management, Safety, Life Choices, Termination*

Sermed Alkass, who has been acting as Practice Lead over SS since 2010, is leading the trainings provided to SACs in DMH DO clinics. The training is tailored to the COD population in the County of Los Angeles and includes presentation of case examples specific to consumers with CODs served through DMH clinics. A representative from the Quality Assurance team will also attend the trainings to give a brief overview of documenting services in a SMHS system.

The first training occurred on August 22, 2019 and included 15 staff members from 12 DO clinics that work with consumers with CODs. The second training occurred on October 29, 2019 and included 11 staff members from DO clinics that work with consumers with CODs. Participants at both trainings completed a training evaluation at the end of the session that consisted of 18 Likert scale questions related to meeting learning objectives, that presenter's knowledge and style, training materials, training location, and intention to use the practice. There were also two open-ended questions to assess training strengths and recommendations for improvement. Participants were generally highly satisfied with the training. They also reported that they thought the training would supply them with a helpful intervention for COD and intended to use it with consumers. Detailed evaluation data are included in the table below (see Table 6.3). Open-ended comments indicated that the trainees were most interested in "using the structured manual", "the benefits of clients committing and a homework assignment weekly", the "great session topics", and "exploring how mental health and substance use disorder intersect and how to document." They suggested "more video examples" and "new videos, more recent and realistic" as training improvements.

TABLE 6.3. SEEKING SAFETY TRAINING EVALUATION DATA

Item	Rating	
	August 2019	October 2019
The training met the following learning objective: Identify the key clinical issues in providing treatment to trauma-exposed populations	4.67	4.67
The training met the following learning objective: Identify the key clinical issues in providing substance abuse treatment	4.60	4.67
The training met the following learning objective: Demonstrate skills to increase empathy and understanding of the impact of trauma and substance abuse	4.64	4.78

The training met the following learning objective: State the step-by-step process of administering a manualized Seeking Safety, evidence-based model for trauma and/or substance abuse	4.33	4.78
The training met the following learning objective: Identify the key elements necessary to provide culturally appropriate assessment and treatment resources	4.27	4.56
The training met the following learning objective: Design effective tools for applying an evidenced-based treatment model to diverse populations and communities	4.27	4.67
Presenter was knowledgeable about the subject	4.71	4.78
Presenter was well-prepared	4.64	4.78
The material was organized clearly for learning to occur/ Presentation was useful and broadened my knowledge	4.53	4.89
The handout materials facilitated learning.	4.67	4.67
Curriculum addressed cultural competency and diversity	4.07	4.56
The length of time was appropriate	3.87	4.44
The training improved my knowledge of the subject matter	4.29	4.78
The training is important and useful to my professional growth	4.40	4.78
The facility met my needs (i.e., location, temperature, parking, etc)	4.33	4.33
I would recommend this activity to others	4.33	--
I plan to use what I learned in this training in my work with consumers with co-occurring disorders	4.33	--
This training will help me provide another intervention for my consumers with co-occurring disorders	4.33	--

Participants also completed the SS Knowledge test (Attachment 1A.3) at the beginning and end of the training. The knowledge test is a 10-item, multiple choice test created by the developer that is intended to assess participant understanding of the training content. In the August 2019 training, participants demonstrated relatively low scores at the beginning of training (52% average) and their scores decreased after the training (43% average). A PDSA was conducted to assess the unexpected drop in scores (Attachment 1A.6) and determined that many of the knowledge test items focus on prevalence rates and diagnostic criteria for PTSD. As the SACs are not expected to diagnose MH disorders and the main purpose of the training is to prepare the SACs to run SS groups, the PIP Committee members decided to adapt the knowledge test items to be more focused on implementation of the model itself. The new version of the SS Knowledge Test (Attachment 1A.7) was used at the October training and scores were improved from the initial training at both pre and post. Participants in October had a 54% average prior to the training and a 78% average at the end of the training, representing a 47% improvement. Participants also indicated an increase in their comfort with Seeking Safety (measured on a 5-point Likert scale) from 3.1 prior to the training to 4.2 after the training. See Attachment 1A.8 on Cycle 2 of the PDSA on the SS Knowledge Test Participants in both the August and October trainings were also asked to complete a modified SS Brief Adherence Scale (Attachment 1A.4) to assess their fidelity to the model over time.

<u>Seeking Safety (SS) Theme-based calls</u>

Participants from the August and October trainings participated in fifteen theme-based

calls over six months with national experts on the SS treatment model. These theme-based calls are intended to continue to facilitate learning of the model and provide the SACs with continued support in tailoring the interventions to their individual consumers with CODs. The themes for these calls focus on specific populations and common barriers to treatment. Topics are as follows: Getting started with SS (developing an action plan), Conducting the session, Engaging resistant clients, Focusing on trauma, Focusing on addiction, Adapting SS, Working with unsafe behavior, Adolescents, Adults, Older Adults, Tough cases, Role-play a session, Fidelity (staying true to the model), Sustaining the model, and Safe Coping Cards. This training and consultation call series addresses the SACs' need for an integrated treatment model that addresses trauma and substance use. An average of five to seven SACs attended the consultation calls on a regular basis.

Phase II

UCLA Extension 10-week Course on Mental Health (MH) and Substance Abuse Treatment

The PIP committee, in conjunction with experts in co-occurring disorders from the UCLA Integrated Substance Abuse Programs (ISAP) developed a curriculum for a specialized course provided by UCLA Extension for newly-hired and seasoned SACs. This three-hour, 11-week course, titled "Role and Function of Substance Use Disorder Counselors When Working with a Clinical Multidisciplinary Team to Treat Co-Occurring Disorders", was held in Fall 2019 and Winter 2020. It focused on the SAC's role on a multi-disciplinary treatment team where MH issues are addressed along with substance use interventions. Specifically, the course covered how to conceptualize co-occurring mental health, substance use, and physical health disorders and how their interaction affects screening, assessment, treatment planning and MH services as well as individualized case management. This was applied to common mental health disorders that frequently co-occur with substance use, including depression, bipolar, schizophrenia, anxiety disorders, attention deficit hyperactivity disorder, post-traumatic stress disorder, and personality disorders. The course also provided an overview of evidence-based practices for CODs, including Motivational Interviewing, Cognitive Behavioral Therapy, Medication Assisted Treatments, and integrated behavioral health interventions.

Twenty-four SACs enrolled in the Fall 2019 course and fourteen SACs enrolled in the Winter 2020 course. Knowledge tests were administered prior to and after classes that focused on EBPs and teaming in Fall 2019 and for most classes in Winter 2020. Pre and post scores as well as percent improvement for each class is noted in the Tables 6.4 and 6.5 below.

TABLE 6.4: UCLA EXTENSION COURSE FALL 2019 KNOWLEDGE TEST SCORES

Date	Topic	Average Pre-Test Score	Average Post-Test Score	% improvement
10/30/20	Cognitive Behavioral Therapy (CBT)	3.05/5	3.21/5	5.2%
11/6/20	CBT/Motivational Interviewing (MI)	2.95/5	3.84/5	30.2%
11/13/20	MI	3.79/5	4.06/5	21.4%
11/20/20	Role & Documenting	3.38/5	4.1/5	21.3%
11/27/20	Medications for Mental Health Disorders	3.87/5	4.57/5	18%
12/11/20	Medication-Assisted Treatment (MAT)	3.18/5	4.29/5	34.9%

TABLE 6.5: UCLA EXTENSION COURSE WINTER 2020 KNOWLEDGE TEST SCORES

Date	Topic	Average Pre-Test Score	Average Post-Test Score	% improvement
1/14/20	Introduction to Mental Health Disorders and their relationship with SUDs – Part 1	3.6/5	4/5	11.1%
1/28/20	Introduction to Mental Health Disorders and their relationship with SUDs – Part 2	3.1/5	3.1/5	0%
2/4/20	Introduction to Mental Health Disorders and their relationship with SUDs – Part 3	3.7/5	4.2/5	13.5%
2/11/20	Cognitive Behavioral Therapy (CBT)	3.7/5	3.6/5	-2.7%
2/18/20	CBT/Motivational Interviewing (MI)	3.6/5	4.2/5	16.7%
2/25/20	MI	3.4/5	4/5	17.6%
3/3/20	Role & Documenting	2.5/5	4/5	60%
3/17/20	Medication-Assisted Treatment (MAT)	4.1/5	4.2/5	2.4%

Integr8Recovery Groups

The Integr8Revovery model seeks to fully integrate the various facets of co-occurring disorder treatment, from medication-assisted treatment to cognitive behavioral therapy and mutual self-help groups using lived experience. This model is designed to maximize available staff time and provide flexibility for therapists who may be specialized in specific treatment modalities. The goal is to incorporate effective and evidence-based treatments in a single group that naturally provides interdisciplinary

treatment and planning. This model is intended to be 18 weekly sessions in group format. Participants are those with a primary mental health disorder who have at least some interest in reducing or stopping substance use. The model includes evidence-based practices such as contingency management, cognitive behavioral therapy (including components of Seeking Safety and the BRIGHT-2 manual), 12-step facilitation, and medication for co-occurring disorders. The Integr8Recovery groups will also include an outcomes component through the Weekly Check-In measure. This brief measure will assess for an anxiety, depressed mood, and cravings rating (0-10 with 10 being highest), questions regarding medication side effects and need for an individual medication appointment, and use of non-prescribed substances over the past week. The use over the past week includes the number of drinks for alcohol (with a visual of a standard drink for various alcoholic beverages) and indication of use or no use for cannabinoids, cocaine/crack, amphetamine/methamphetamine, opioids/heroin, benzodiazepines (e.g., Xanax, Klonopin, Valium, Ativan, etc) and other drugs.

Quality Assurance (QA) Bulletin on Co-Occurring Mental Health and Substance Use

QA Bulletins provide vital information related to updates and changes in the MH system, particularly as they relate to billing and claiming for MH and related services, documentation, and clinical forms. The SACs and staff from multiple other disciplines both in DO clinics and contracted agencies have requested formal guidance regarding acceptable services for consumers with CODs and proper documentation of these services. A QA bulletin related to assessment, treatment planning, and treatment interventions for consumers with CODs was created to help clarify what constitutes a billable service in a SMHS system including specific examples (see Attachment 1A.17). This bulletin was released and reviewed in detail for both DO clinics and contracted agencies at the Countywide QIC meeting on June 8, 2020. The QA unit also held a meeting with program managers from DO clinics to review the bulletin and answer relevant questions.

Policy/Clinical Practice Parameters for Consumers with Co-occurring Disorders (CODs)

Policy and clinical practice parameters outline critical factors that should be considered in the provision of care for consumers being served through DMH. They are based on consensus among DMH providers and other experts within the scope of practice. The policy and clinical practice parameter devoted to the treatment of consumers with CODs will be vital for providing guidance regarding proper screening for SUDs and assessment of substance use and the impact of substance use on primary mental health problem. They will also address developing a comprehensive treatment plan that incorporates the role of substances in exacerbating mental health problems and applying integrated, evidence-based interventions to treat co-occurring mental health and substance use disorders. These documents will also help define guidelines about when to refer a consumer for substance abuse services and how to provide timely follow-up care upon release from substance abuse services as well as how to effectively team with other providers to develop a comprehensive care plan. Policy 305.01 “Assessment and Treatment of Co-Occurring Substance Abuse” is currently

under review by several members of the clinical PIP committee and is scheduled to be updated by the end of the calendar year.

Clinical Workgroups for CODs

Dr. Jorge Partida, Chief of Psychology, is overseeing an effort to develop clinical workgroup committees focused on specialty care groups within DMH. These workgroups meet at least once per month and have focused on conducting an inventory of current and affiliated services, identifying population needs, creating treatment protocols, developing related trainings, and directing implementation and evaluation efforts. The current specialty care groups are co-occurring (mental illness and SUDs), developmental disorders and mental illness, justice-involved and diversion efforts, personality disorders, eating disorders, and children and youth. The COD group, which is made up of an identified lead, co-lead, and five team members who have experience in treating COD consumers, started to meet in September 2019 and has been working to identify training gaps related to the assessment and treatment of CODs, particularly

Coordination with the Department of Public Health (DPH)

Following the DMC-ODS rollout, there has been an increase in the number of unique individuals served as well as the quality and variety of services provided through DPH (Urada et al., 2018). Results from the Treatment Perceptions Survey (TPS), which assessed patients' perceptions of and satisfaction with their services, indicate that consumers are generally satisfied with county DMC-ODS services. However, the survey statement "staff here work with my mental health care providers to support my wellness" was rated the lowest (average rating = 4.2/5) of all items (Urada et al., 2018). In addition, administrators from counties with an active DMC-ODS waiver reported having poor integration between their SUD and MH departments (average rating = 2.9/5). They also reported that SUD and MH departments met frequently enough to support an ODS and had guidelines or requirements for SUD to partner with MH providers in only 57.1% counties (Urada et al., 2018). These data suggest that there is a need to increase collaboration across SUD and MH providers to ensure that individuals receive ongoing, high-quality, integrated care as they move between the departments. Future interventions will address this need for greater coordination between the departments.

Data from 2017-2018 DMC-ODS surveys completed by SUD treatment county administrators also indicate that administrators from counties with active DMC-ODS waivers experienced significant challenges (average rating: 4/5) implementing at least two of the five required EBPs (i.e., trauma-informed treatment, MI, cognitive-behavioral therapy, relapse prevention, and psychoeducation) for consumers with CODs (Urada et al, 2018). These administrators reported that, out of these five practices, their highest priorities for training were trauma-informed treatment and MI. This PIP will attempt to address the difficulties encountered in providing these EBPs through the DPH system by making the EBPs available in the MH system.

As DPH assumed a pivotal role in addressing the COVID-19 pandemic as a public health crisis, it was not possible to continue collaboration with DPH after March 2020. DMH plans to resume this work and collaborate on improving care at dually-contracted (SMHS and DMC-ODS) sites with DPH when the pandemic is under control and time allows.

RAND Alcohol Use Disorder and Opioid Use Disorder Toolkits

The Department has been collaborating with the RAND Corporation on the development of an Alcohol Use Disorder Toolkit and an Opioid Use Disorder Toolkit, as these are two substance use disorders for which Medication-Assisted Treatment (MAT) is available. Through data collection and focus groups with DMH staff, RAND scientists and DMH staff have identified several needs that the toolkits could meet, including greater attention to offering brief interventions to positive screens on the AUDIT-C, improving diagnostic accuracy, and teaming among disciplines at DO clinics. The toolkits will include a QI component with consideration to proper staffing, quality metrics, and ensuring that there is communication among team members.

Step 6: Describing the Improvement Strategy (Intervention) and Implementation Plan

WORKSHEET 7: DESCRIBING THE DATA COLLECTION PROCEDURES

Describe the methods for collecting valid and reliable data.

Data primarily come from claiming and billing records that are submitted through IBHIS and are housed in the data warehouse. Multiple departments and staff members, including supervisors, program managers, CIOB, and Quality Assurance (QA) regularly review this data to ensure it is valid and reliable.

What are the data sources being used?

The primary data sources for the performance indicators are the claiming and group appointment tables in IBHIS. Additional data sources include survey data from the Substance Abuse Counselor Survey, the Seeking Safety Brief Adherence scale, which were administered electronically through Survey Monkey, and knowledge test data, which was collected by paper and entered into an electronic database.

What are the data elements being collected?

The data elements being collected are the use of Seeking Safety as indicated by the group enrollment form and labeling of group names in the group appointment table in the data warehouse as well as the individual EBP enrollment form in the claiming table. Data elements related to performance measures include hospital re-admissions, the number of mental health and targeted case management services attended overall and within 30 and 90 days of identified target dates. Other data elements are SAC perceptions of teaming and comfort with various EBPs and adherence to SS. These elements were collected for each intervention sample (i.e., consumers served by those who attended the August SS training, October SS training, the UCLA Extension Fall 2019 course, and the Winter 2020 course and those who were documented to receive SS and Integr8Recovery in IBHIS) as well as two comparison samples: consumers with secondary SUDs who did not have contact with a SAC in FY 18-19 Q4 to FY 19-20 Q3 and those who received SS in DO clinics from staff other than the SACs.

What is the frequency of data collection (daily, weekly, monthly, annually, etc.)?

Claiming data related to mental health services and targeted case management services are collected on a daily basis as progress notes are entered into IBHIS. Data on hospitalizations are collected as consumers are admitted and discharged from inpatient psychiatric units and there is usually a data lag in receiving accurate information. For this reason, these data were accessed on a quarterly basis.

Who will be collecting the data?

Claiming data are collected by the SACs and other staff who provide the services and submit progress notes in IBHIS. Hospitalization data are collected by the staff at the

discharging hospital. The Clinical Informatics team is responsible for housing and accessing the data once they are is collected. The lead PIP analyst collected the data related to the SAC survey, pre-post knowledge tests, training evaluations, and the SS Brief Adherence scale through the use of an online survey distribution tool (SurveyMonkey).
What data collection instruments are being used? Please note if the MHP/DMC-ODS has created any instruments for this PIP. The SAC Outpatient Treatment Provider Survey was created as part of the PIP with input from several Program Managers and Dr. Jorge Partida. The SS knowledge test created by the treatment developer was initially used to measure knowledge gained as a result of the August 2019 training. This test was modified through a PDSA cycle to tailor it to the SAC training background and the new tool, which was developed by the SS Practice Lead and PIP lead analyst, was administered at the October 2019 training. The knowledge tests for the UCLA extension course were created by the PIP lead analyst in collaboration with the course developers and were based on the slide content for each week. The SS Brief adherence scale was modeled off of the developer's scale but was modified to be a self-report tool.
Additional Information or comments

Step 7: Describing the Data Collection Procedures

WORKSHEET 8: DATA ANALYSIS AND INTERPRETATION OF PIP RESULTS

After carrying out the PIP, collecting, analyzing and interpreting the data, answer the following questions *with respect to the original aim of the PIP*:

What are the results of the study?

The results of the study are that the provision of services using a multidisciplinary, integrated, evidence-based treatment model for consumers with co-occurring mental health and substance use disorders resulted in a positive impact on their functioning and treatment engagement/retention for some samples and not others and that the pattern of results varied over time.

For the 7-day hospital re-admission rates, these varied across quarters for the August SS training sample and UCLA Fall 2019 course, increased slightly for the October SS training sample, and decreased for the UCLA Winter 2020 course sample. For the 30-day hospital re-admission rates, these increased for the August SS training sample, varied for the October SS training and UCLA Fall 2019 course samples, and decreased for the UCLA Winter 2020 course. When looking at the combined group of consumers served by SACs who attended the SS August or October training and the UCLA Extension Fall 2019 course, the pattern was similar to that for the separate samples. The 7-day hospital re-admission rates initially decreased from Q4 FY18-19 to Q1 FY 19-20, increased in Q2 FY 19-20 and then decreased again in Q3 FY 19-20. The 30-day rates increased the first two quarters and then also decreased in Q3 FY19-20. Of the 12 SACs that received both interventions, it was generally only a few each quarter that had a consumer that was re-hospitalized. One SAC representing Downtown MHC had a particularly high number of consumers re-hospitalized (average: 14) within 30 days. As this is a clinic with a high acuity, often homeless population, it might be expected that this SAC serves consumers that are more likely to have frequent hospitalizations. None of the consumers who were documented to receive SS (N = 34) and Integr8Recovery (N = 34) were re-hospitalized within 7 and 30 days of discharge either before or after the intervention was delivered, perhaps suggesting these interventions were implemented with a lower-acuity population. These rates were also similar to the comparison sample of consumers receiving SS from staff other than the SACs in that they were mostly 0% and there was only one consumer re-admitted within 7 days of a hospitalization in Q3 FY19-20.

For the PIP intervention samples that had 7-day re-admission rates over 0% (i.e., consumers served by those who attended the August SS training, October SS training, the UCLA Extension Fall 2019 course, and the Winter 2020 course), these rates were often comparable to or lower than the comparison sample of consumers with secondary SUDs that were not served by SACs. The exceptions were the rates for the August SS training in Q4 FY18-19, Q2 FY 19-20, and Q3 FY 19-20, which were considerably higher than those of the comparison group. For the PIP intervention samples that had 30-day re-admission rates over 0% (i.e., consumers served by those who attended the August SS training, October SS training, the UCLA

Extension Fall 2019 course, and the Winter 2020 course), these rates were often higher than the comparison sample of consumers with secondary SUDs that were not served by SACs.

Engagement rates also varied for the August SS and October SS training samples, decreased for the UCLA Fall 2019 and Winter 2020 course samples, and increased for the Integr8Recovery groups sample. The combined group of consumers served by SACs who attended the SS August or October training and the UCLA Extension Fall 2019 course showed a similar pattern to the other samples with an initial increase and then decrease over time. Retention rates followed a similar pattern except that rates increased for the October SS training sample. Average mental health services similarly varied for the August SS and October SS training samples, decreased for the UCLA Fall 2019 and Winter 2020 course samples, and increased for consumers that were documented to receive Seeking Safety and Integr8Recovery groups. The combined group of consumers served by SACs who attended the SS August or October training and the UCLA Extension Fall 2019 course again indicated an initial increase and then decrease over time. Average targeted case management services followed a similar pattern except that rates decreased for the October SS training sample. When comparing the PIP intervention samples to the comparison samples, the PIP intervention samples generally demonstrated higher engagement and retention rates as well as average MH and TCM services attended.

How often were the data analyzed?

Data were analyzed on a quarterly basis to allow time for the claiming records to be up-to-date and as accurate as possible. Data were presented to the clinical PIP committee during the monthly calls as data became available each quarter.

Who conducted the data analysis, and how are they qualified to do so?

The PIP lead analyst conducted the data analysis. The PIP lead analyst is a clinical psychologist Ph.D. with a strong research background in dissemination and implementation science as well as quantitative and qualitative research methods and statistical analysis. She is an author on 20 peer-reviewed original research publications and has participated in over 30 original research presentations at state and national conferences on psychology and mental health care.

How was change/improvement assessed?

Change/improvement was assessed by comparing the baseline rates to rates at multiple re-measurement time points. Percent improvement was calculated from quarter to quarter sequentially as well as from baseline to the most recent measurement point. Statistical analyses are also described below.

To what extent was the data collection plan adhered to—were complete and sufficient data available for analysis?

Data collection for SS claims was a challenge due to the naming convention of groups and the lack of initial SAC training in the use of the EBP enrollment form. As these

barriers were addressed, tracking modestly improved. Please see Attachment 1A.10 and 1A.14 for PDSAs on increasing utilization and tracking of SS during COVID-19 in particular. As the data on indicators for the other samples were based on overall claiming data, which did not have the same barriers, the collection of these indicators went as planned and were similar to the numbers of consumers served in the last fiscal year. Data from Q4 FY 19-20 were not yet included as there is a data lag, particularly with hospitalization rates, and these results may not be accurate.

Were any statistical analyses conducted? If so, which ones? Provide level of significance.

Yes, chi square tests of independence were conducted for the 7-day and 30-day re-admission rates as well as the engagement and retention rates. Chi-square tests were not significant for the 7-day or 30-day re-admission rates ($p > .05$ for all analyses, see table below). The chi-square test for engagement rates for the sample that received Seeking Safety was statistically significant ($X^2 = 13.16$, $p < .05$) and rates increased over time. The August SS sample also approached significance on this variable ($X^2 = 6.98$, $p = .07$). The chi-square test for engagement rates for the UCLA Extension Fall 2019 course sample was also statistically significant but decreased over time ($X^2 = 12.89$, $p < .05$). For retention rates, the sample that received Integr8Recovery also approached significance in a positive direction ($X^2 = 3.67$, $p = 0.06$).

For the average MHS and TCM services, different tests were used for different samples. As the group of unique consumers that received Seeking Safety and the Integr8Recovery groups was very similar from quarter to quarter, a paired samples t-test was used for these two samples. Of these analyses, only the average mental health services for consumers receiving Integr8Recovery was statistically significant from Q2 to Q3 FY 19-20 ($t = -2.76$, $p < .05$). For the Seeking Safety August and October 2019 training samples as well as the UCLA Fall 2019 and UCLA Winter 2020 samples, a summary independent samples t-test was used as unique consumers in these samples varied considerably from quarter to quarter. Average MHS trended toward significance for the SS August sample with an increase in average services from Q4 FY18-19 to Q1 19-20 ($t = -1.79$, $p = .07$) and a decrease in average services from Q1 FY19-20 to Q2 FY 19-20 ($t = 1.92$, $p = .05$). Average MHS also significantly decreased for the UCLA Fall 2019 group from Q2 FY19-20 to Q3 FY 19-20 ($t = -3.05$, $p < .05$). Similar to average MHS services, average TCM services attended significantly decreased for the SS August 2019 sample from Q1 FY19-20 to Q2 FY19-20 ($t = -3.05$, $p < .05$) and from Q2 FY19-20 to Q3 FY 19-20 ($t = 3.04$, $p < .05$) and for the UCLA Course Fall Extension course sample significantly differed on average TCM services attended from Q1 FY19-20 to Q2 19-20 ($t = 2.72$, $p < .05$).

An analysis of variance (ANOVA) was conducted for the UCLA Fall 2019 Course chart review findings using group (i.e., high attendance training vs. low attendance/no training group) and time (i.e., pre and post intervention) as independent variables and total score on the chart review (out of 32 possible points) as the dependent variable. Results were not significant at the $p = 0.05$ level.

Were factors considered that could threaten the internal or external validity of the findings examined?

Yes, it is difficult to isolate the effects of each intervention as there was overlap in participants between the August/October SS trainings and the UCLA Fall 2019 and Winter 2020 courses. SACs likely applied the knowledge that they gained in both trainings to consumers served in the subsequent quarters. It was also difficult to isolate the effects of the intervention, particularly SS, when including all consumers served as opposed to those consumers that were documented as receiving SS. Thus, this sample was examined separately from the larger group.

The SACs also represent a variety of settings. Some are placed in urgent care settings where they might not expect to see consumers for multiple consecutive sessions, some are on Full Service Partnership (FSP) teams where consumers are typically of higher acuity, and others are in outpatient settings where there is more regularity in consumer contact and potentially lower acuity consumers. For the samples with the most heterogeneity, including the SS August and October 2019 trainings and the UCLA Extension Fall 2019 and Winter 2020 course, it is challenging to determine how much these variables impacted re-admission and engagement and retention rates as well as average number of MH and TCM services attended. It was possible to create a separate sample that was documented to receive SS. However, it was more challenging to determine how widely the interventions taught in the UCLA Extension courses were applied outside of the chart review.

The COVID-19 pandemic also significantly impacted the SACs and other staff's ability to use the interventions in Q3 as all groups were initially paused, the focus was on urgent, high-need consumers, and some SACs were re-deployed as Disaster Service Workers (DSWs). Please see Attachment 1A.14 for the PDSA on SAC Activities during COVID-19. There were plans for additional SS groups to start at UCLA Olive View and East San Gabriel Valley clinics in Q3 that were delayed due to COVID-19. There was also a plan for Integr8Recovery to begin in San Fernando Valley Mental Health Center and that was similarly put on hold.

Additional Information or comments

Present the objective results at each interval of data collection. Complete this table and add (or attach) other tables/figures/charts as appropriate.

TABLE 8.1 PIP RESULTS SUMMARY – PERFORMANCE MEASURES

Performance Measures	Sample	Baseline Measurement (B)	Re-measurement 1 (R1)	Re-measurement 2 (R2)	Dates of Baseline and Re-measurements	FINAL Measurement (F)
Psychiatric Inpatient Hospital 7-Day Readmission Rates	Consumers of SACs that attended the SS August Training	8/32 X 100 = 25% (consumers re-hospitalized within 7 days/total consumers served by SACs that attended the SS August training hospitalized in Q4 FY 18-19)	7/43 X 100 = 16.3% Improvement (B): 34.8% (consumers re-hospitalized within 7 days/total consumers by SACs that attended the SS August training hospitalized in Q1 FY 19-20)	18/59 X 100 = 30.5% Improvement (R1): -8.7% (consumers re-hospitalized within 7 days/total consumers by SACs that attended the SS August training hospitalized in Q2 FY 19-20)	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	11/42 X 100 = 26.2% Improvement (R2): 14%; Improvement (B): -4.8% $X^2 = 2.73$, $p > .05$ (consumers re-hospitalized within 7 days/total consumers by SACs that attended the SS August training hospitalized in Q3 FY 19-20)
	Consumers of SACs that attended the Seeking Safety October Training	5/33 X 100 = 15.2% (consumers re-hospitalized within 7 days/total consumers by SACs that attended the SS October training hospitalized in Q1 FY 19-20)	5/32 X 100 = 15.6% Improvement (B): -3.2% (consumers re-hospitalized within 7 days/total consumers by SACs that attended the SS October training hospitalized in Q2 FY 19-20)	4/24 X 100 = 16.7% Improvement (R1): -6.8%; Improvement (B): -10.2%, $X^2 = 0.02$, $p > .05$ (consumers re-hospitalized within 7 days/total consumers by SACs that attended the SS October training hospitalized in Q3 FY 19-20)	Q1 FY19-20 (B); Q2 FY19-20 (R1); Q3 FY19-20 (R2)	
	Consumers that received Seeking Safety	0/1 X 100 = 0% (consumers re-hospitalized within 7 days/total consumers that were documented as receiving SS from a SAC	0/1 X 100 = 0% Improvement (B): -- (consumers re-hospitalized within 7 days/total consumers that were documented as receiving SS	0/1 X 100 = 0% Improvement (R1): -- Improvement (B): -- (consumers re-hospitalized within 7 days/total consumers that were	Q1 FY19-20 (B); Q2 FY19-20 (R1); Q3 FY19-20 (R2)	

		hospitalized in Q1 FY 19-20)	from a SAC hospitalized in Q2 FY 19-20)	documented as receiving SS from a SAC hospitalized in Q3 FY 19-20)		
	Consumers of SACs that attended the UCLA Extension Fall 2019 course	16/94 X 100 =17% (consumers re-hospitalized within 7 days/total consumers served by SACs that attended the Fall 2019 course hospitalized in Q1 FY 19-20)	21/99 X 100 = 21.2% Improvement (B): -24.6% (consumers re-hospitalized within 7 days/total consumers served by SACs that attended the Fall 2019 course hospitalized in Q2 FY 19-20)	17/92 X 100 = 18.5% Improvement (R1): 12.9%; Improvement (B): -8.6%, $X^2 = 0.57$, $p > .05$ (consumers re-hospitalized within 7 days/total consumers served by SACs that attended the Fall 2019 course hospitalized in Q3 FY 19-20)	Q1 FY19-20 (B); Q2 FY19-20 (R1) Q3 FY19-20 (R2)	
	Consumers of SACs that attended the SS August or October training and UCLA Extension Fall 2019 course	11/50 X 100 =22% (consumers re-hospitalized within 7 days/total consumers served by SACs that attended the SS trainings and UCLA Fall 2019 course hospitalized in Q4 FY 18-19)	10/59 X 100 = 17% Improvement (B): 22.7% (consumers re-hospitalized within 7 days/total consumers by SACs that attended the SS trainings and UCLA Fall 2019 course hospitalized in Q1 FY 19-20)	21/72 X 100 = 29.2% Improvement (R1): -71.8% (consumers re-hospitalized within 7 days/total consumers by SACs that attended the SS trainings and UCLA Fall 2019 course hospitalized in Q2 FY 19-20)	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	12/53 X 100 = 22.6% Improvement (R2): -22.6%; Improvement (B): -2.7% $X^2 = 2.79$, $p > .05$ (consumers re-hospitalized within 7 days/total consumers by SACs that attended the SS trainings and UCLA Fall 2019 course hospitalized in Q3 FY 19-20)
	Consumers of SACs that attended the UCLA Extension Winter 2020 course	2/14 X 100 = 14.3% (consumers re-hospitalized within 7 days/total consumers served by SACs	0/7 X 100 = 0% Improvement (B): 100%, $X^2 = 0.44$, $p > .05$ (consumers re-hospitalized	Not yet available	Q2 FY19-20 (B); Q3 FY19-20 (R1)	

		that attended the Winter 2020 course hospitalized in Q2 FY 19-20)	within 7 days/total consumers served by SACs that attended the Winter 2020 course hospitalized in Q3 FY 19-20)			
	Consumers in Integr8Recovery groups	0/0 X 100 = 0% (consumers re-hospitalized within 7 days/total consumers that received Integr8Recovery hospitalized in Q2 FY 19-20)	0/0 X 100 = 0% Improvement (B): -- (consumers re-hospitalized within 7 days/total consumers that received Integr8Recovery hospitalized in Q3 FY 19-20)	Not yet available	Q2 FY19-20 (B); Q3 FY19-20 (R1)	
Psychiatric Inpatient Hospital 30-Day Readmission Rates	Consumers of SACs that attended the Seeking Safety August Training	12/32 X 100 = 37.5% (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the SS August training hospitalized in Q4 FY 18-19)	16/43 X 100 = 37.2% Improvement (B): 0.8% (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the SS August training hospitalized in Q1 FY 19-20)	25/59 X 100 =42.4% Improvement (R1): -13.9% (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the SS August training hospitalized in Q2 FY 19-20)	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	19/42 X 100 = 45.2% Improvement (R2): -6.7%; Improvement (B): -20.5%, $X^2 = 0.78$, $p > .05$ (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the SS August training hospitalized in Q3 FY 19-20)
	Consumers of SACs that attended the Seeking Safety October Training	11/33 X 100 = 33.3% (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the SS October training hospitalized in Q1 FY 19-20)	11/32 X 100 = 34.4% Improvement (B): -3.3% (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the SS October training	5/24 X 100 = 20.8% Improvement (R1): 39.5%; Improvement (B): 37.5%, $X^2 = 1.41$, $p > .05$ (consumers re-hospitalized within 30 days/total consumers served by SACs that attended	Q1 FY19-20 (B); Q2 FY19-20 (R1); Q3 FY19-20 (R2)	

			hospitalized in Q2 FY 19-20)	the SS October training hospitalized in Q3 FY 19-20)		
	Consumers that received Seeking Safety	0/1 X 100 = 0% (consumers re-hospitalized within 30 days/total consumers that were documented as receiving SS from a SAC hospitalized in Q1 FY 19-20)	0/1 X 100 = 0% Improvement (B): -- (consumers re-hospitalized within 30 days/total consumers that were documented as receiving SS from a SAC hospitalized in Q2 FY 19-20)	0/1 X 100 = 0% Improvement (R1): -- (consumers re-hospitalized within 30 days/total consumers that were documented as receiving SS from a SAC hospitalized in Q3 FY 19-20)	Q1 FY19-20 (B); Q2 FY19-20 (R1); Q3 FY19-20 (R2)	
	Consumers of SACs that attended the UCLA Extension Fall 2019 course	34/94 X 100 = 36.2% (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the Fall 2019 course hospitalized in Q1 FY 19-20)	37/99 X 100 = 37.4% Improvement (B): -3.3% (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the Fall 2019 course hospitalized in Q2 FY 19-20)	28/92 X 100 = 30.4% Improvement (R1): 18.7%; Improvement (B): 16%, $X^2 = 1.14$, $p > .05$ (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the Fall 2019 course hospitalized in Q3 FY 19-20)	Q1 FY19-20 (B); Q2 FY19-20 (R1); Q3 FY19-20 (R2)	
	Consumers of SACs that attended the SS August or October Training and UCLA Extension Fall 2019 course	17/50 X 100 = 34% (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the SS trainings and UCLA Fall 2019 course hospitalized in Q4 FY 18-19)	23/59 X 100 = 39% Improvement (B): -14.7% (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the SS trainings and UCLA Fall 2019 course in Q1 FY 19-20)	33/72 X 100 =45.8% Improvement (R1): -17.4% (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the SS trainings and UCLA Fall 2019 course in Q2 FY 19-20)	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	20/53 X 100 = 37.7% Improvement (R2): 17.7%; Improvement (B): -10.9%, $X^2 = 1.91$, $p > .05$ (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the SS trainings and UCLA Fall 2019 course

						hospitalized in Q3 FY 19-20)
	Consumers of SACs that attended the UCLA Extension Winter 2020 course	4/14 X 100 = 28.57% (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the Winter 2020 course hospitalized in Q2 FY 19-20)	0/7 X 100 = 0% Improvement (B): 100%, X^2 = 1.14, p > .05 (consumers re-hospitalized within 30 days/total consumers served by SACs that attended the Winter 2020 course hospitalized in Q3 FY 19-20)	Not yet available	Q2 FY19-20 (B); Q3 FY19-20 (R1)	
	Consumers in Integr8Recovery groups	0/0 X 100 = 0% (consumers re-hospitalized within 30 days/total consumers that received Integr8Recovery hospitalized in Q2 FY 19-20)	0/0 X 100 = 0% Improvement (B): -- (consumers re-hospitalized within 30 days/total consumers that received Integr8Recovery hospitalized in Q3 FY 19-20)	Not yet available	Q2 FY19-20 (B); Q3 FY19-20 (R1)	
Treatment Engagement (2 or more services within 30 days)	Consumers of SACs that attended the Seeking Safety August Training	308/587 X 100 = 52.5% (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the SS August training in Q4 FY 18-19)	330/554 X 100 = 59.6% Improvement (B): 13.5% (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the SS August training in Q1 FY 19-20)	309/554 X 100 = 55.8% Improvement (R1): -6.4% (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the SS August training in Q2 FY 19-20)	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	231/436 X 100 = 53% Improvement (R2): -5%; Improvement (B): 1%, X^2 = 6.98, p > .05 (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the SS August training in Q3 FY 19-20)

	Consumers of SACs that attended the Seeking Safety October Training	435/763 X 100 = 57% (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the SS October training in Q1 FY 19-20)	349/593 X 100 = 58.9% Improvement (B): 3.2% (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the SS October training in Q2 FY 19-20)	305/534 X 100 = 57.1% Improvement (R1): -3.1%; Improvement (B): 0.2%, X^2 = 0.54, p > .05 (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the SS October training in Q3 FY 19-20)	Q1 FY19-20 (B); Q2 FY19-20 (R1); Q3 FY19-20 (R2)	
	Consumers that received Seeking Safety	0/11 X 100 = 0% (consumers that attended at least two services within 30 days of seeing SAC /consumers that were documented as receiving SS from a SAC with at least one service from a SAC in Q1 FY 19-20)	9/11 X 100 = 81.8% Improvement (B): 100% (consumers that attended at least two services within 30 days of seeing SAC /consumers that were documented as receiving SS from a SAC with at least one service from a SAC in Q2 FY 19-20)	8/10 X 100 = 80% Improvement (R1): -1.8%; Improvement (B): 100%, X^2 = 13.16, p < .05 (consumers that attended at least two services within 30 days of seeing SAC /consumers that were documented as receiving SS from a SAC with at least one service from a SAC in Q3 FY 19-20)	Q1 FY19-20 (B); Q2 FY19-20 (R1); Q3 FY19-20 (R2)	
	Consumers of SACs that attended the UCLA Extension Fall 2019 course	821/1,418 X 100 = 57.9% (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that	678/1241 X 100 = 54.6% Improvement (B): -3.2% (consumers that attended at least two services within 30 days of seeing SAC /consumers with	579/1,140 X 100 = 50.8% Improvement (R1): -3.1%; Improvement (B): -12.3%, X^2 = 12.89, p < .05 (consumers that attended at	Q1 FY19-20 (B); Q2 FY19-20 (R1) Q3 FY19-20 (R2)	

		attended the Fall 2019 course in Q1 FY 19-20)	at least one service from a SAC that attended the Fall 2019 course in Q2 FY 19-20)	least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the Fall 2019 course in Q3 FY 19-20)		
	Consumers of SACs that attended the SS August or October training and UCLA Fall 2019 course	385/692 X 100 = 55.6% (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall course in Q4 FY 18-19)	392/667 X 100 = 58.8% Improvement (B): 5.8% (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall course in Q1 FY 19-20)	340/593 X 100 = 57.3% Improvement (R1): -2.5% (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall course in Q2 FY 19-20)	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	251/483 X 100 = 52% Improvement (R2): -9.2%; Improvement (B): -6.5%, $X^2 = 5.71$, $p > .05$ (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall course in Q3 FY 19-20)
	Consumers of SACs that attended the UCLA Extension Winter 2020 course	176/288 X 100 = 61.1% (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the Winter 2020 course in Q2 FY 19-20)	188/311 X 100 = 60.5% Improvement (B): -1%, $X^2 = 0.03$, $p > .05$ (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the Winter 2020 course in Q3 FY 19-20)	Not yet available	Q2 FY19-20 (B); Q3 FY19-20 (R1)	
	Consumers in	14/32 X 100 = 43.8%	20/34 X 100 = 58.8%	Not yet available	Q2 FY19-20 (B); Q3 FY19-20 (R1)	

	Integr8Recovery groups	(consumers that attended at least two services within 30 days /consumers that received at least one Integr8Recovery service in Q2 FY 19-20)	Improvement (B): 34.2%, $X^2 = 1.5$, $p > .05$ (consumers that attended at least two services within 30 days of seeing SAC /consumers that received at least one Integr8Recovery service in Q3 FY 19-20)			
Treatment Retention (6 or more services within 90 days)	Consumers of SACs that attended the Seeking Safety August Training	227/587 x 100 = 38.7% (consumers that attended at least six services within 90 days of seeing SAC /consumers with at least one service from a SAC that attended the SS August training in Q4 FY 18-19)	239/554 X 100 = 43.1% Improvement (B): 11.4% (consumers that attended at least six services within 90 days of seeing SAC /consumers with at least one service from a SAC that attended the SS August training in Q1 FY 19-20)	220/554 X 100 = 39.7% Improvement (R1): -7.9% (consumers that attended at least six services within 90 days of seeing SAC /consumers with at least one service from a SAC that attended the SS August training in Q2 FY 19-20)	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	165/436 X 100 = 37.8% Improvement (R2): -4.8%; Improvement (B): -2.3%, $X^2 = 3.57$, $p > .05$ (consumers that attended at least six services within 90 days of seeing SAC /consumers with at least one service from a SAC that attended the SS August training in Q3 FY 19-20)
	Consumers of SACs that attended the Seeking Safety October Training	250/763 X 100 = 32.8% (consumers that attended at least six services within 90 days of seeing SAC /consumers with at least one service from a SAC that attended the SS October training in Q1 FY 19-20)	208/593 X 100 = 35.1% Improvement (B): 7% (consumers that attended at least six services within 90 days of seeing SAC /consumers with at least one service from a SAC that attended the SS October training in Q2 FY 19-20)	194/534 X 100 = 36.3% Improvement (R1): 3.4%; Improvement (B): 10.7%, $X^2 = 1.89$, $p > .05$ (consumers that attended at least six services within 90 days of seeing SAC /consumers with at least one service from a SAC that attended the SS October training in Q3 FY 19-20)	Q1 FY19-20 (B); Q2 FY19-20 (R1); Q3 FY19-20 (R2)	

	Consumers that received Seeking Safety	0/11 X 100 = 0% (consumers that attended at least six services within 90 days of seeing SAC /consumers that were documented as receiving SS from a SAC with at least one service from a SAC in Q1 FY 19-20)	9/11 X 100 = 81.8% Improvement (B): 100% (consumers that attended at least six services within 90 days of seeing SAC /consumers that were documented as receiving SS from a SAC with at least one service from a SAC in Q2 FY 19-20)	6/10 X 100 = 60% Improvement (R1): -26.7%; Improvement (B): 100%, $X^2 = 10.63$, $p < .05$ (consumers that attended at least six services within 90 days of seeing SAC /consumers that were documented as receiving SS from a SAC with at least one service from a SAC in Q3 FY 19-20)	Q1 FY19-20 (B); Q2 FY19-20 (R1); Q3 FY19-20 (R2)	
	Consumers of SACs that attended the UCLA Extension Fall 2019 course	515/1,418 X 100 = 36.3% (consumers that attended at least six services within 90 days of seeing SAC /consumers with at least one service from a SAC that attended the Fall 2019 course in Q1 FY 19-20)	437/1,241 X 100 = 35.2% Improvement (B): -3% (consumers that attended at least six services within 90 days of seeing SAC /consumers with at least one service from a SAC that attended the Fall 2019 course in Q2 FY 19-20)	378/1,140 X 100 = 33.2% Improvement (R1): -5.7%; Improvement (B): -8.5%, $X^2 = 2.81$, $p > .05$ (consumers that attended at least six services within 90 days of seeing SAC /consumers with at least one service from a SAC that attended the Fall 2019 course in Q3 FY 19-20)	Q1 FY19-20 (B); Q2 FY19-20 (R1); Q3 FY19-20 (R2)	
	Consumers of SACs that attended the SS August or October training and UCLA Fall 2019 course	265/692 X 100 = 38.3% (consumers that attended at least two services within 30 days of seeing SAC /consumers with at least one service from a	279/667 X 100 = 41.8% Improvement (B): 9.1% (consumers that attended at least two services within 30 days of seeing SAC	230/593 X 100 = 38.8% Improvement (R1): -7.2% (consumers that attended at least two services within 30 days of seeing SAC	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	158/453 X 100 = 34.9% Improvement (R2): -10.1%; Improvement (B): -8.9%, $X^2 = 2.14$, $p > .05$ (consumers that attended at least

		SAC that attended the SS trainings and UCLA Fall course in Q4 FY 18-19)	/consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall course in Q1 FY 19-20)	/consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall course in Q2 FY 19-20)		two services within 30 days of seeing SAC /consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall course in Q3 FY 19-20)
	Consumers of SACs that attended the UCLA Extension Winter 2020 course	129/288 X 100 = 44.79% (consumers that attended at least six services within 90 days of seeing SAC /consumers with at least one service from a SAC that attended the Winter 2020 course in Q2 FY 19-20)	138/311 X 100 = 44.37% Improvement (B): -0.9%, X^2 = 0.01, p > .05 (consumers that attended at least six services within 90 days of seeing SAC /consumers with at least one service from a SAC that attended the Winter 2020 course in Q3 FY 19-20)	Not yet available	Q2 FY19-20 (B); Q3 FY19-20 (R1)	
	Consumers in Integr8Recovery groups	7/32 X 100 = 21.9% (consumers that attended at least six services within 90 days of seeing SAC /consumers that received at least one Integr8Recovery service in Q2 FY 19-20)	15/34 X 100 = 44.1% Improvement (B): 101%, X^2 = 3.67, p > .05 (consumers that attended at least six services within 90 days of seeing SAC /consumers that received at least one Integr8Recovery service in Q3 FY 19-20)	Not yet available	Q2 FY19-20 (B); Q3 FY19-20 (R1)	
Average Mental Health Services Attended	Consumers of SACs that attended the Seeking Safety August Training	4,594/587 = 7.8 (total MHS attended by consumers seen by a SAC	5,127/554 = 9.3 Improvement (B): 17.8%, t = -1.79, p > .05	4,310/554 = 7.8 Improvement (R1): -17.6%, t = 1.92, p > .05	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	2,855/436 = 6.5 Improvement (R2): -14%; Improvement (B): -16.5%, t = -1.80, p > .05

		that attended the SS August training/total consumers with at least one service from a SAC that attended the SS August training in Q4 FY 18-19)	(total MHS attended by consumers seen by a SAC that attended the SS August training/total consumers with at least one service from a SAC that attended the SS August training Q1 FY 19-20)	(total MHS attended by consumers seen by a SAC that attended the SS August training/total consumers with at least one service from a SAC that attended the SS August training in Q2 FY 19-20)		(total MHS attended by consumers seen by a SAC that attended the SS August training/ total consumers with at least one service from a SAC that attended the SS August training in Q3 FY 19-20)
	Consumers of SACs that attended the Seeking Safety October Training	5,297/763 = 6.9 (total MHS attended by consumers seen by a SAC that attended the SS October training/total consumers with at least one service from a SAC that attended the SS October training in Q1 FY 19-20)	4,484/593 = 7.6 Improvement (B): 10.1%, t = -1.09, p > .05 (total MHS attended by consumers seen by a SAC that attended the SS October training/total consumers with at least one service from a SAC that attended the SS October training in Q2 FY 19-20)	3,625/534 =6.8 Improvement (R1): -10.5%, t = -1.16, p > .05 (total MHS attended by consumers seen by a SAC that attended the SS October training/total consumers with at least one service from a SAC that attended the SS October training in Q3 FY 19-20)	Q1 FY19-20 (B); Q2 FY19-20 (R1); Q3 FY19-20 (R2)	
	Consumers that received Seeking Safety	232/34 = 6.8 (total MHS attended by consumers that received SS from a SAC/total consumers that received SS from a SAC in Q4 FY 18-19)	229/34 = 6.7 Improvement (B): -1.3%, t = 0.07, p > .05 (total MHS attended by consumers that received SS from a SAC / total consumers that received SS from a SAC in Q1 FY 19-20)	293/34 = 8.6 Improvement (R1): 28.1%, t = -1.6, p > .05 (total MHS attended by consumers that received SS from a SAC /total consumers that received SS from a SAC in Q2 FY 19-20)	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	322/34 = 9.5 Improvement (R2): 9.9%; Improvement (B): 38.9%, t = -0.78, p > .05 (total MHS attended by consumers that received SS from a SAC/total consumer that received SS from a SAC in Q3 FY 19-20)
	Consumers of SACs that attended the UCLA Extension Fall 2019 course	11,972/1,418 = 8.4 (total MHS attended by consumers seen by a SAC	10,251/1,241 = 8.3 Improvement (B): -2.1%, t = 0.20, p > .05	7,850/1,140 = 6.9 Improvement (R1): -16.6%, t = -3.05, p < .05	Q1 FY19-20 (B); Q2 FY19-20 (R1) Q3 FY19-20 (R2)	

		that attended the Fall 2019 course/total consumers with at least one service from a SAC that attended the Fall 2019 course in Q1 FY 19-20)	(total MHS attended by consumers seen by a SAC that attended the Fall 2019 course/ total consumers with at least one service from a SAC that attended the Fall 2019 course in Q2 FY 19-20)	(total MHS attended by consumers seen by a SAC that attended the Fall 2019 course /total consumers with at least one service from a SAC that attended the Fall 2019 course in Q3 FY 19-20)		
	Consumers of SACs that attended the SS August or October training and the UCLA Fall Course	6,191/692 = 8.9 (total MHS attended by consumers seen by a SAC that attended the SS August training/total consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall Course in Q4 FY 18-19)	6,487/667 = 9.7 Improvement (B): 9% (total MHS attended by consumers seen by a SAC that attended the SS August training/total consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall Course Q1 FY 19-20)	5,498/593 = 9.3 Improvement (R1): -4.1%, (total MHS attended by consumers seen by a SAC that attended the SS August training/total consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall Course in Q2 FY 19-20)	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	3,455/483 = 7.2 Improvement (R2): -22.6%; Improvement (B): -19.1% (total MHS attended by consumers seen by a SAC that attended the SS August training/ total consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall Course in Q3 FY 19-20)
	Consumers of SACs that attended the UCLA Extension Winter 2020 course	1,995/288 = 6.9 (total MHS attended by consumers seen by a SAC that attended the Winter 2020 course / total consumers with at least one service from a SAC that attended the Winter 2020 course in Q2 FY 19-20)	2,077/311 = 6.8 Improvement (B): -3.6%, t = 0.16, p > .05 (total MHS attended by consumers seen by a SAC that attended the Winter 2020 course / total consumers with at least one service from a SAC that attended the Winter 2020 course in Q3 FY 19-20)	Not yet available	Q2 FY19-20 (B); Q3 FY19-20 (R1)	

	Consumers in Integr8Recovery groups	183/32 = 5.7 (total MHS attended by consumers that received Integr8Recovery/total consumers with at least one Integr8Receovery service in Q2 FY 19-20)	315/34 = 9.3 Improvement (B): 63.2%, t = -2.76, p < .05 (total MHS attended by consumers that received Integr8Recovery/total consumers with at least one Integr8Recovery service in Q3 FY 19-20)	Not yet available	Q2 FY19-20 (B); Q3 FY19-20 (R1)	
Average Targeted Case Management Services Attended	Consumers of SACs that attended the Seeking Safety August Training	1,222/587 = 2.1 (total TCM services attended by consumers seen by a SAC that attended the SS August training/total consumers with at least one service from a SAC that attended the SS August training in Q4 FY 18-19)	1,370/554 = 2.5 Improvement (B): 18.8%, t = -1.68, p > .05 (total TCM services attended by consumers seen by a SAC that attended the SS August training/total consumers with at least one service from a SAC that attended the SS August training in Q1 FY 19-20)	1,002/554 = 1.8 Improvement (R1): -27.1%, t = -3.05, p < .05 (total TCM services attended by consumers seen by a SAC that attended the SS August training/total consumers with at least one service from a SAC that attended the SS August training in Q2 FY 19-20)	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	534/436 = 1.2 Improvement (R2): -32.2%; Improvement (B): -30.7%, t = 3.04, p < .05 (total TCM services attended by consumers seen by a SAC that attended the SS August training/ total consumers with at least one service from a SAC that attended the SS August training in Q3 FY 19-20)
	Consumers of SACs that attended the Seeking Safety October Training	955/763 = 1.3 (total TCM services attended by consumers seen by a SAC that attended the SS October training/total consumers with at least one service from a SAC that attended the SS October training in Q1 FY 19-20)	695/593 = 1.2 Improvement (B): 18.8%, t = 0.70, p > .05 (total TCM services attended by consumers seen by a SAC that attended the SS October training/ total consumers with at least one service from a SAC that attended the SS	632/534 = 1.2 Improvement (R1): 0.9%; Improvement (B): -5.6%, t = 0.00, p > .05 (total TCM services attended by consumers seen by a SAC that attended the SS October training/total consumers with at least one service from a SAC that	Q1 FY19-20 (B); Q2 FY19-20 (R1) Q3 FY19-20 (R2)	

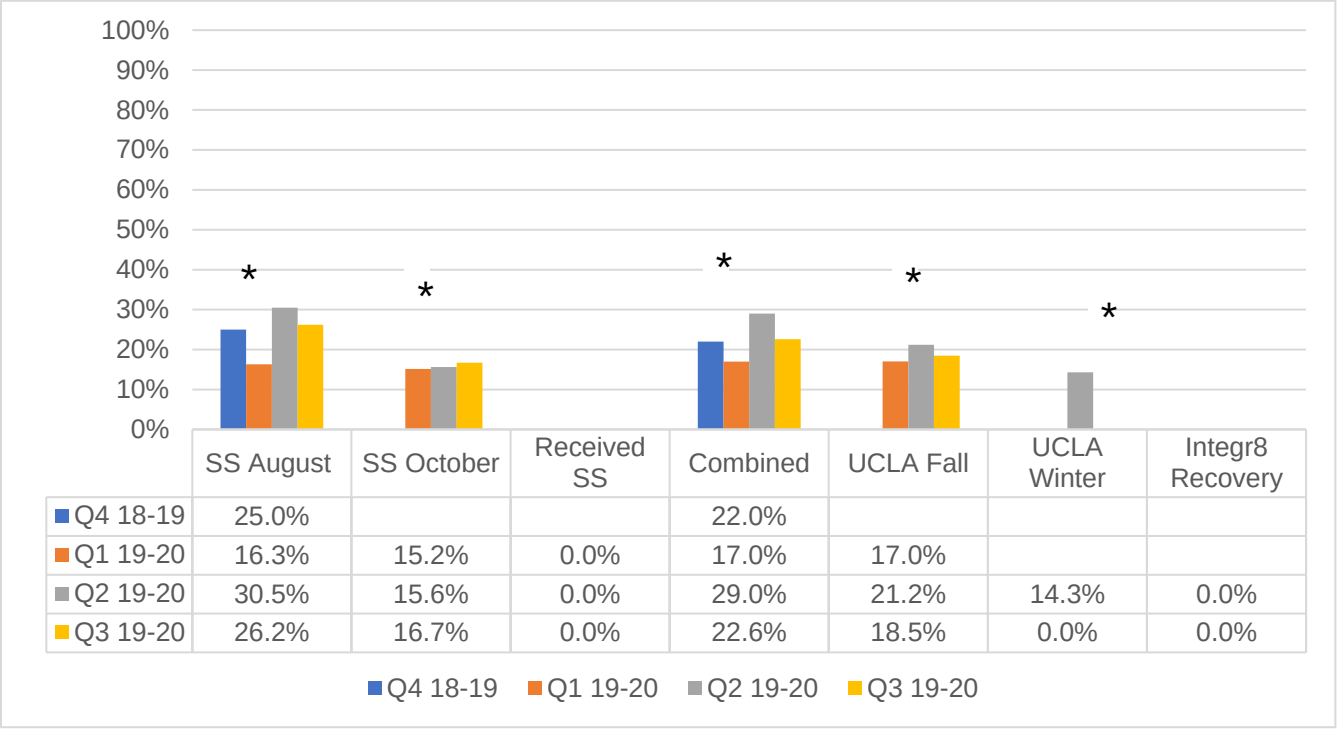
			October training in Q2 FY 19-20)	attended the SS October training in Q3 FY 19-20)		
	Consumers that received Seeking Safety	39/34 = 1.2 (total TCM services attended by consumers that received SS from a SAC/total consumers that received SS from a SAC in Q4 FY 18-19)	45/34 = 1.3 Improvement (B): 8.3%, t = -0.22, p > .05 (total TCM services attended by consumers that received SS from a SAC/total consumers that received SS from a SAC in Q1 FY 19-20)	38/34 = 1.1 Improvement (R1): -18.2%, t = 5.64, p > .05 (total TCM services attended by consumers that received SS from a SAC/total consumers that received SS from a SAC in Q2 FY 19-20)	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	37/34 = 1.1 Improvement (R2): --; Improvement (B): -8.3%, t = 0.08, p > .05 (total MHS attended by consumers that received SS from a SAC/total consumers that received SS from a SAC in Q3 FY 19-20)
	Consumers of SACs that attended the UCLA Extension Fall 2019 course	1,888/1,418 = 1.3 (total TCM services attended by consumers seen by a SAC that attended the Fall 2019 course/total consumers with at least one service from a SAC that attended the Fall 2019 course in Q1 FY 19-20)	1,283/1,241 = 1.0 Improvement (B): -23.1%, t = 2.72, p < .05 (total TCM services attended by consumers seen by a SAC that attended the Fall 2019 course/total consumers with at least one service from a SAC that attended the Fall 2019 course in Q2 FY 19-20)	1,018/1,140 = 0.9 Improvement (R1): -10%; Improvement (B): -30.8%, t =-1.02, p > .05 (total TCM services attended by consumers seen by a SAC that attended the Fall 2019 course/total consumers with at least one service from a SAC that attended the Fall 2019 course in Q3 FY 19-20)	Q1 FY19-20 (B); Q2 FY19-20 (R1) Q3 FY19-20 (R2)	
	Consumers of SACs that attended the SS August or October training and UCLA Fall course	1,072/692 = 1.6 (total TCM services attended by consumers seen by a SAC that attended the SS August training/total consumers with at least one service from a	1,110/667 = 1.7 Improvement (B): 6.3% (total TCM services attended by consumers seen by a SAC that attended the SS August training/total	746/593 = 1.3 Improvement (R1): -23.5 (total TCM services attended by consumers seen by a SAC that attended the SS August training/total consumers with	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	450/483 = 0.9 Improvement (R2): -30.8%; Improvement (B): -43.8% (total TCM services attended by consumers seen by a SAC that attended the SS August training/

		SAC that attended the SS trainings and UCLA Fall Course in Q4 FY 18-19)	consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall Course in Q1 FY 19-20)	at least one service from a SAC that attended the SS trainings and UCLA Fall Course in Q2 FY 19-20)		total consumers with at least one service from a SAC that attended the SS trainings and UCLA Fall Course in Q3 FY 19-20)
	Consumers of SACs that attended the UCLA Extension Winter 2020 course	349/288 = 1.21 (total TCM services attended by consumers seen by a SAC that attended the Winter 2020 course/total consumers with at least one service from a SAC that attended the Winter 2020 course in Q2 FY 19-20)	326/311 = 1.05 Improvement (B): -13.2%, t = 0.67, p > .05 (total TCM services attended by consumers seen by a SAC that attended the Winter 2020 course/total consumers with at least one service from a SAC that attended the Winter 2020 course in Q3 FY 19-20)	Not yet available	Q2 FY19-20 (B); Q3 FY19-20 (R1)	
	Consumers in Integr8Recovery groups	36/32 = 1.13 (total TCM services attended by consumers that received Integr8Recovery/total consumers with at least one Integr8Receovery service in Q2 FY 19-20)	45/34 = 1.32 Improvement (B): 23.6%, t = -0.68, p > .05 (total TCM services attended by consumers that received Integr8Recovery/total consumers with at least one Integr8Receovery service in Q2 FY 19-20)	Not yet available	Q2 FY19-20 (B); Q3 FY19-20 (R1)	

Note: Percent improvement was calculated using the percent change formula (increase or decrease divided by the base number multiplied by 100).

Figures representing these performance indicators by sample over time (quarter prior to implementation to the most recent quarter) are presented on the following pages.

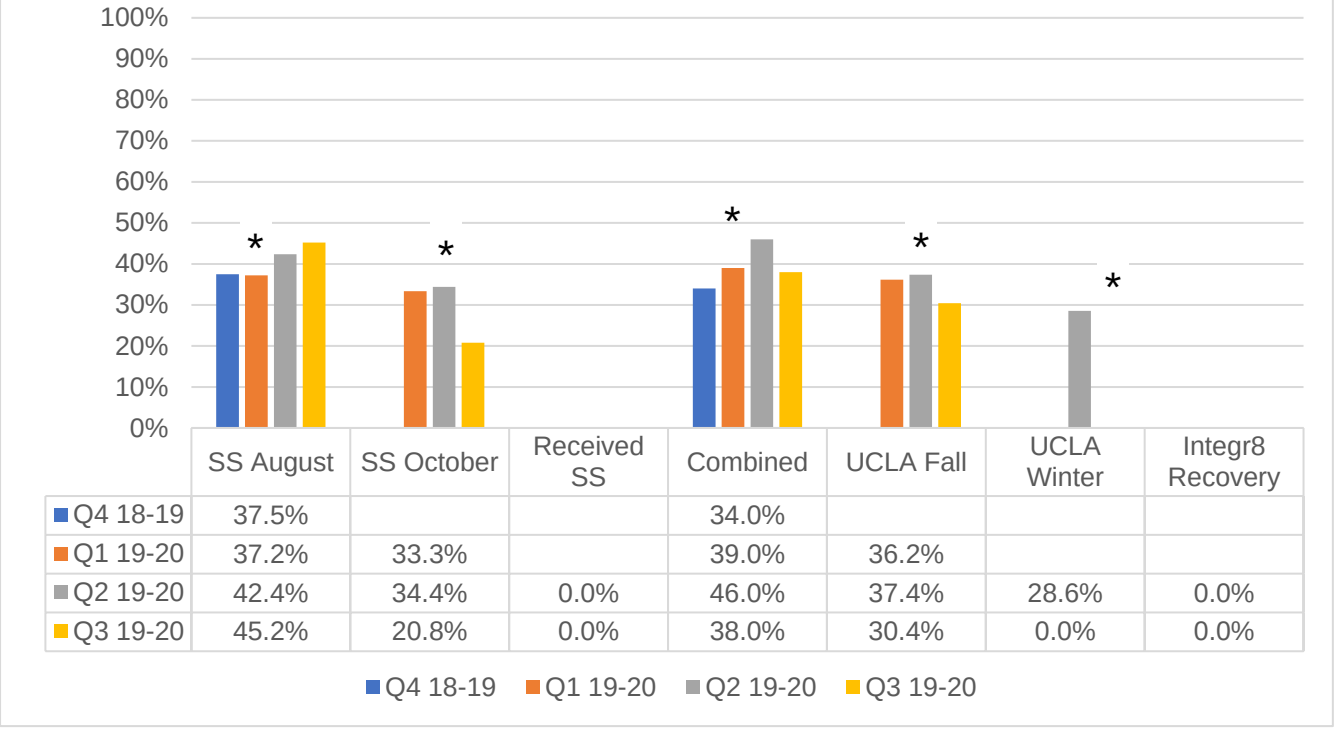
Figure 8.1: 7-Day Hospitalization Re-admission Rates by Sample over Time



	SS August	SS October	Received SS	Combined	UCLA Fall	UCLA Winter	Integr8 Recovery
Q4 18-19	25.0%			22.0%			
Q1 19-20	16.3%	15.2%	0.0%	17.0%	17.0%		
Q2 19-20	30.5%	15.6%	0.0%	29.0%	21.2%	14.3%	0.0%
Q3 19-20	26.2%	16.7%	0.0%	22.6%	18.5%	0.0%	0.0%

Note: * indicates the quarter in which the intervention first occurred for the sample

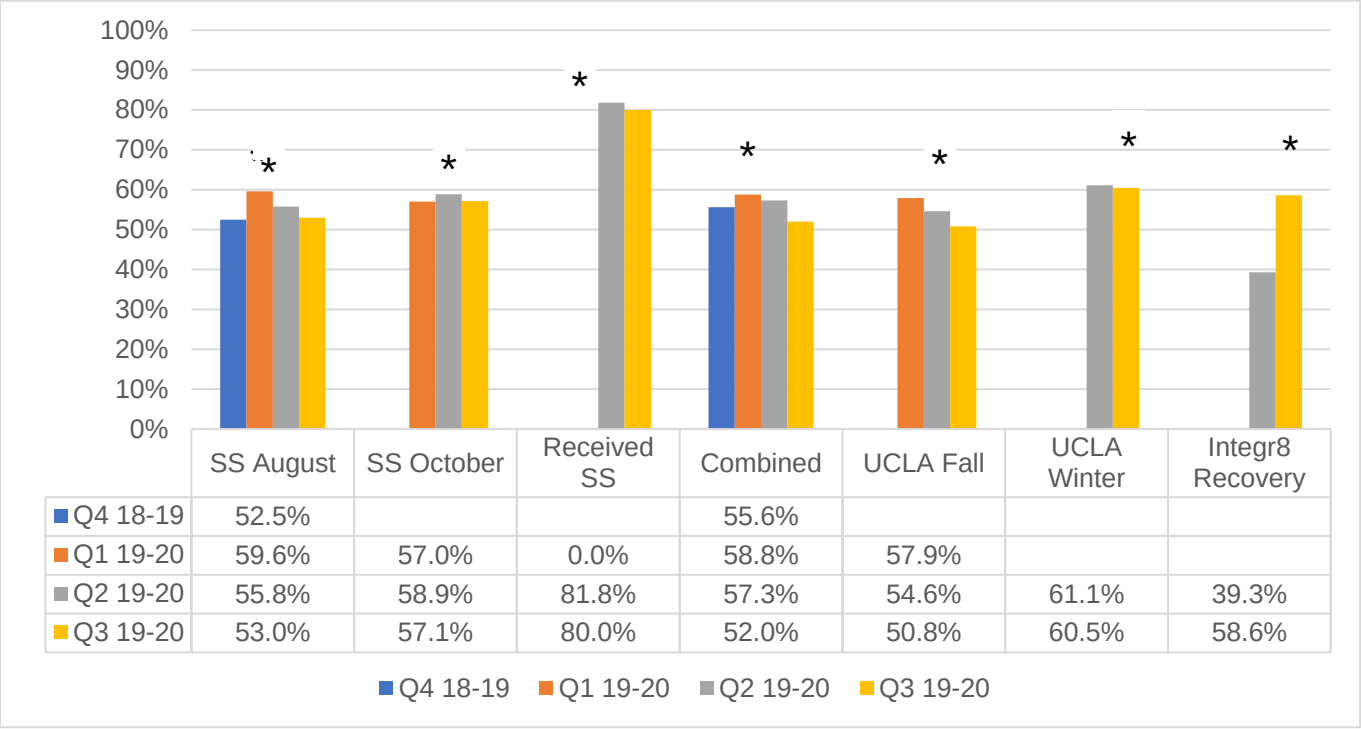
Figure 8.2: 30-Day Hospitalization Re-Admission Rates by Sample over Time



	SS August	SS October	Received SS	Combined	UCLA Fall	UCLA Winter	Integr8 Recovery
Q4 18-19	37.5%			34.0%			
Q1 19-20	37.2%	33.3%		39.0%	36.2%		
Q2 19-20	42.4%	34.4%	0.0%	46.0%	37.4%	28.6%	0.0%
Q3 19-20	45.2%	20.8%	0.0%	38.0%	30.4%	0.0%	0.0%

Note: * indicates the quarter in which the intervention first occurred for the sample

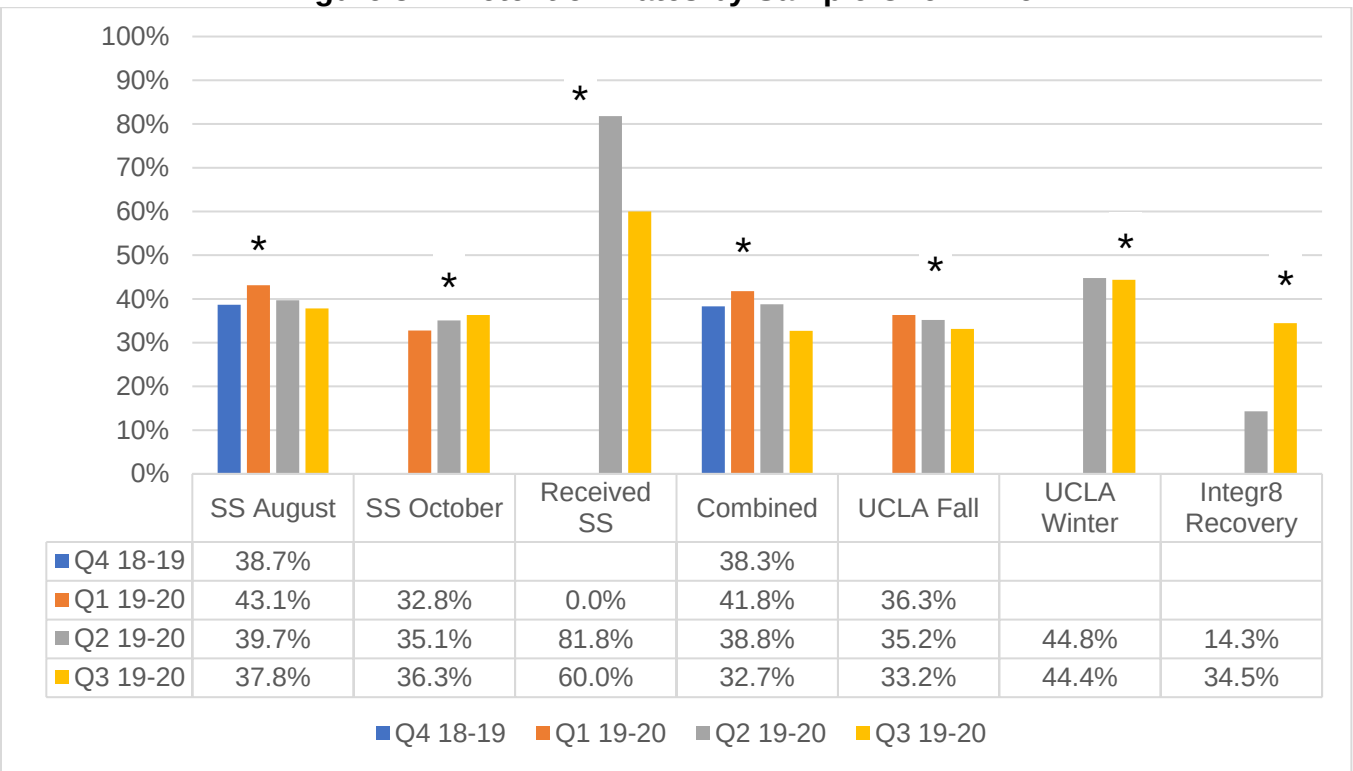
Figure 8.3: Engagement Rates by Sample Over Time



	SS August	SS October	Received SS	Combined	UCLA Fall	UCLA Winter	Integr8 Recovery
Q4 18-19	52.5%			55.6%			
Q1 19-20	59.6%	57.0%	0.0%	58.8%	57.9%		
Q2 19-20	55.8%	58.9%	81.8%	57.3%	54.6%	61.1%	39.3%
Q3 19-20	53.0%	57.1%	80.0%	52.0%	50.8%	60.5%	58.6%

Note: * indicates the quarter in which the intervention first occurred for the sample

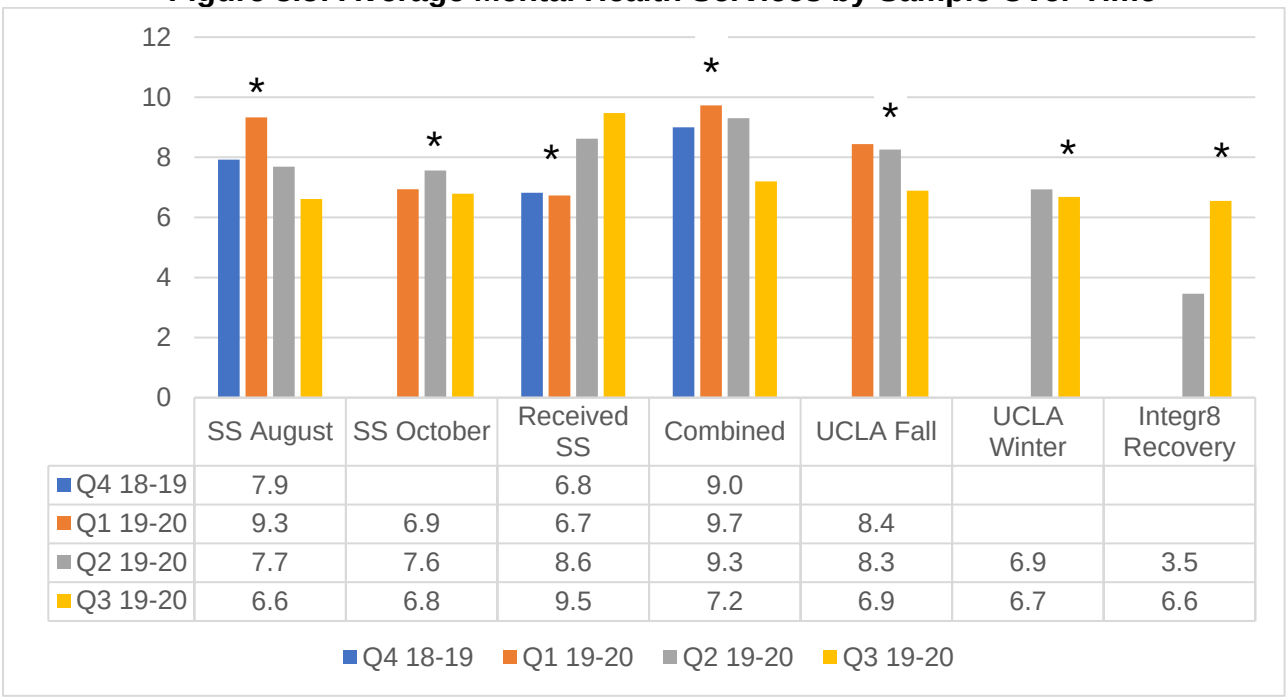
Figure 8.4: Retention Rates by Sample Over Time



	SS August	SS October	Received SS	Combined	UCLA Fall	UCLA Winter	Integr8 Recovery
Q4 18-19	38.7%			38.3%			
Q1 19-20	43.1%	32.8%	0.0%	41.8%	36.3%		
Q2 19-20	39.7%	35.1%	81.8%	38.8%	35.2%	44.8%	14.3%
Q3 19-20	37.8%	36.3%	60.0%	32.7%	33.2%	44.4%	34.5%

Note: * indicates the quarter in which the intervention first occurred for the sample

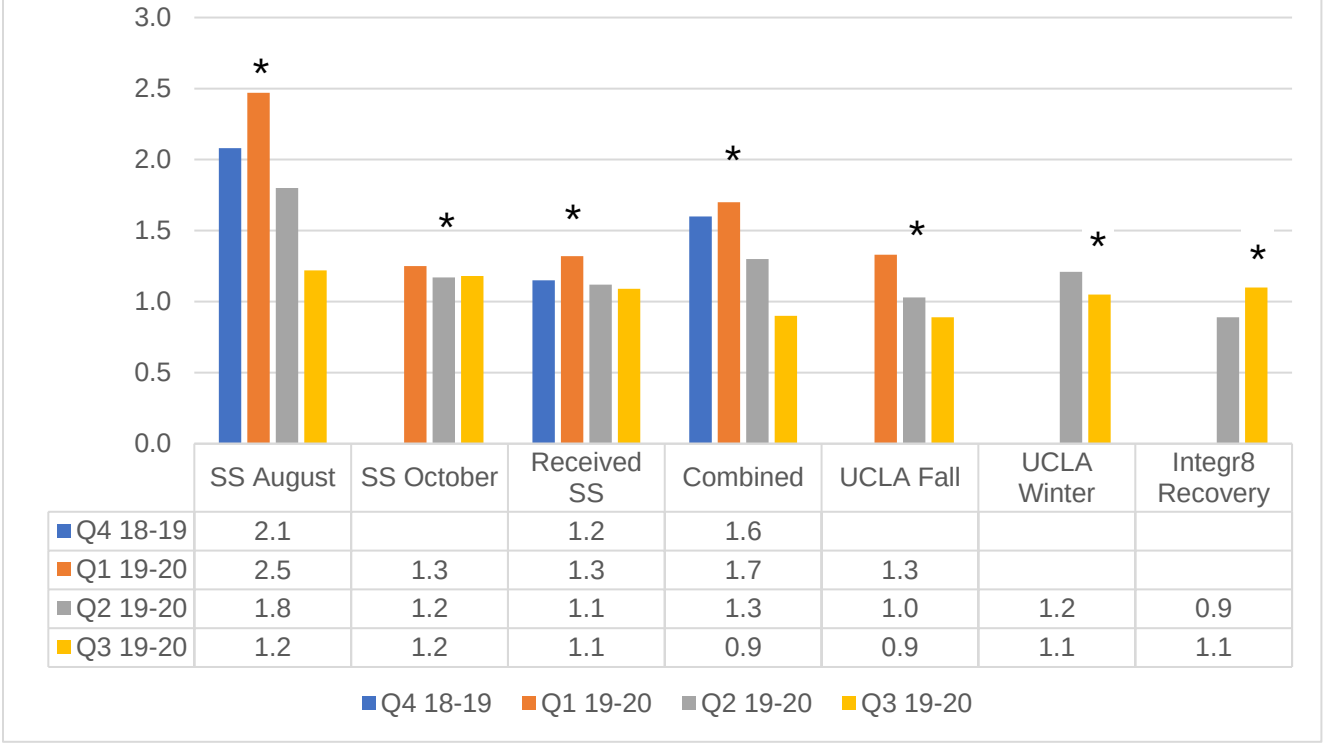
Figure 8.5: Average Mental Health Services by Sample Over Time



	SS August	SS October	Received SS	Combined	UCLA Fall	UCLA Winter	Integr8 Recovery
Q4 18-19	7.9		6.8	9.0			
Q1 19-20	9.3	6.9	6.7	9.7	8.4		
Q2 19-20	7.7	7.6	8.6	9.3	8.3	6.9	3.5
Q3 19-20	6.6	6.8	9.5	7.2	6.9	6.7	6.6

Note: * indicates the quarter in which the intervention first occurred for the sample

Figure 8.6: Average Targeted Case Management Services by Sample Over Time



	SS August	SS October	Received SS	Combined	UCLA Fall	UCLA Winter	Integr8 Recovery
Q4 18-19	2.1		1.2	1.6			
Q1 19-20	2.5	1.3	1.3	1.7	1.3		
Q2 19-20	1.8	1.2	1.1	1.3	1.0	1.2	0.9
Q3 19-20	1.2	1.2	1.1	0.9	0.9	1.1	1.1

Note: * indicates the quarter in which the intervention first occurred for the sample

TABLE 8.2 PIP RESULTS SUMMARY – PERFORMANCE MEASURES FOR COMPARISON SAMPLES

Performance Measure	Sample	Baseline Measurement (B)	Re-measurement 1 (R1)	Re-measurement 2 (R2)	Dates of Baseline and Re-measurements	FINAL Measurement (F)
Psychiatric Inpatient Hospital 7-Day Readmission Rates	Consumers with secondary SUD not served by PIP intervention participants	169/861 X 100 = 19.6%	154/866 X 100 = 17.8% Improvement (B): 9.2%	163/800 X 100 = 20.4% Improvement (R1): -14.6%; Improvement (B): -4.1%	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	137/797 X 100 = 17.2% Improvement (R2): 15.7%; Improvement (B): 12.2%, X^2 = 3.6, p > .05
	Consumers receiving SS from DO staff other than SAC	0/0 X 100 = 0%	0/0 X 100 = 0% Improvement (B): --	0/0 X 100 = 0% Improvement (R1): --	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	1/1 X 100 = 100% Improvement (R2): -100%; Improvement (B): -100%
Psychiatric Inpatient Hospital 30-Day Readmission Rates	Consumers with secondary SUD not served by PIP intervention participants	272/861 X 100 = 31.6%	265/866 X 100 = 30.6% Improvement (B): 3.2%	250/800 X 100 = 31.2% Improvement (R1): -2%	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	213/797 X 100 = 26.7% Improvement (R2): 14.4%; Improvement (B): 15.5%, X^2 = 5.8, p > .05
	Consumers receiving SS from DO staff other than SAC	0/0 X 100 = 0%	0/0 X 100 = 0% Improvement (B): --	0/0 X 100 = 0% Improvement (R1): --	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	1/1 X 100 = 100% Improvement (R2): -100%; Improvement (B): -100%
Engagement Rates	Consumers with secondary SUD not served by PIP intervention participants	3,941/15,190 X 100 = 23%	3,303/15,827 X 100 = 20.9% Improvement (B): -9.1%	3,246/14,806 X 100 = 21.9% Improvement (R1): 4.8%	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	3,320/14,921 X 100 = 22.3% Improvement (R2): 1.8%; Improvement (B): 1%, **X^2 = 128, p < .05**
	Consumers receiving SS from DO staff other than SAC	15/41 X 100 = 36.6%	19/34 X 100 = 55.9% Improvement (B): 52.7%	18/45 X 100 = 40% Improvement (R1): -28.4% Improvement (B): 9.3%	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	13/37 X 100 = 35.1% Improvement (R2): -12.3%; Improvement (B): -4.1%, X^2 = 4.0, p > .05

Retention Rates	Consumers with secondary SUD not served by PIP intervention participants	1,468/15,190 x 100 = 9.7%	1,420/15,827 X 100 = 9.3% Improvement (B): -4.1	1,309/14,806 X 100 = 8.8% Improvement (R1): -5.4%; Improvement (B): -9.3%	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	1,536/14,921 X 100 = 10.3% Improvement (R2): 17%; Improvement (B): 6.2%, **X^2 = 23.9, p < .05**
	Consumers receiving SS from DO staff other than SAC	7/41 X 100 = 17.1%	8/34 X 100 = 23.5% Improvement (B): 37.4%	15/45 X 100 = 33.3% Improvement (R1): 41.7% Improvement (B): 94.7%	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	10/37 X 100 = 27% Improvement (R2): -18.9%; Improvement (B): 57.9%, X^2 = 3.1, p > .05
Average MHS	Consumers with secondary SUD not served by PIP intervention participants	45,093/15,190 = 3.0	45,977/15,287 = 3.0 Improvement (B): --, t = -0.04, p > .05	42,566/14,806 = 2.9 Improvement (R1): -3.3%; Improvement (B): -3.3%, t = 0.14, p > .05	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	43,381/14,921 = 2.9 Improvement (R2): -- Improvement (B): -3.3%, t = -0.04, p > .05
	Consumers receiving SS from DO staff other than SAC	250/41 = 6.1	196/34 = 5.8 Improvement (B): -4.9%, t = 0.34, p > .05	181/45 =4.0 Improvement (R1): -31%; Improvement (B): -34.4%, t = 1.74, p > .05	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	123/37 = 3.3 Improvement (R2): -17.5%; Improvement (B): -45.9%, t = 0.7, p > .05
Average TCM	Consumers with secondary SUD not served by PIP intervention participants	8,877/15,190 = 0.6	8,417/15,287 = 0.6 Improvement (B): --, t = 0.02, p > .05	7,277/14,806 = 0.5 Improvement (R1): -16.7; Improvement (B): -16.7%, **t = -0.07, p < .05**	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	8,043/14,921 = 0.5 Improvement (R2): -- Improvement (B): -16.7%, **t = -0.05, p < .05**
	Consumers receiving SS from DO staff other than SAC	22/41 = 0.5	7/34 = 0.2 Improvement (B): -60%, t = 0.33, p > .05	7/45 = 0.2 Improvement (R1): -- Improvement (B): -60%, t = -0.05, p > .05	Q4 FY18-19 (B); Q1 FY19-20 (R1); Q2 FY19-20 (R2); Q3 FY19-20 (F)	8/37 = 0.2 Improvement (R2): -- Improvement (B): -60%, t = -0.06, p > .05

Figures depicting the performance indicators for the comparison samples in contrast to the PIP intervention samples by quarter are presented on the following pages.

Figure 8.7: 7-Day Hospitalization Re-admission Rates by Sample over Time as Compared to Benchmarks

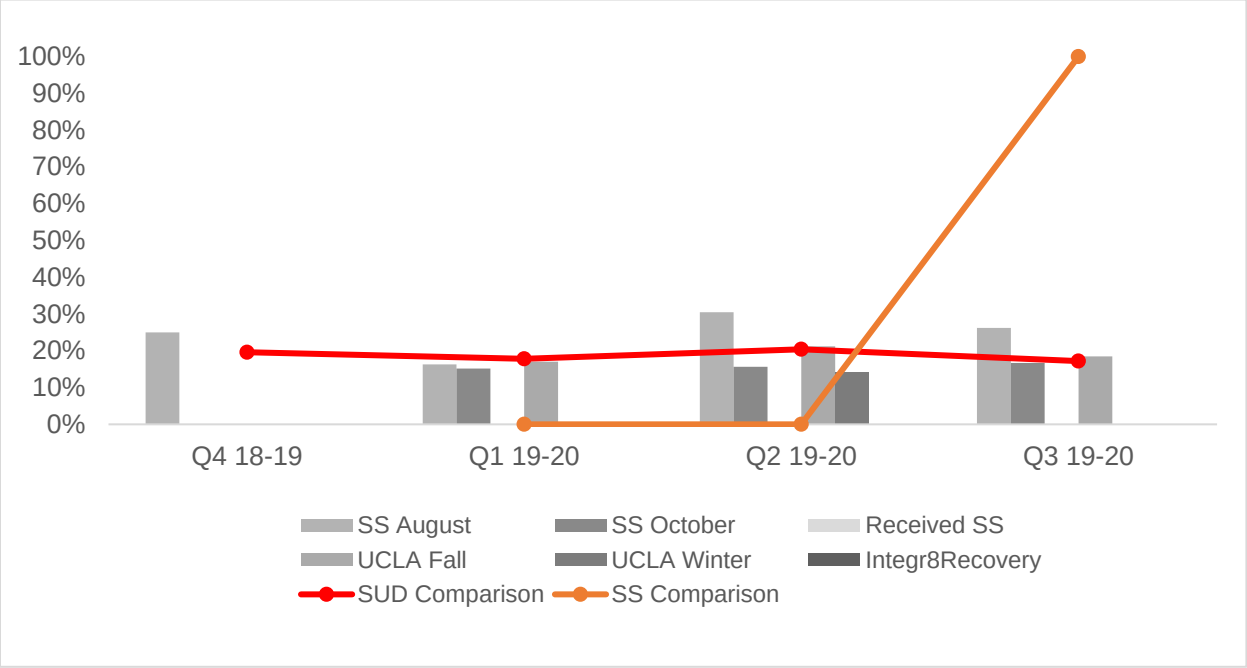


Figure 8.8: 30-Day Hospitalization Re-admission Rates by Sample over Time as Compared to Benchmarks

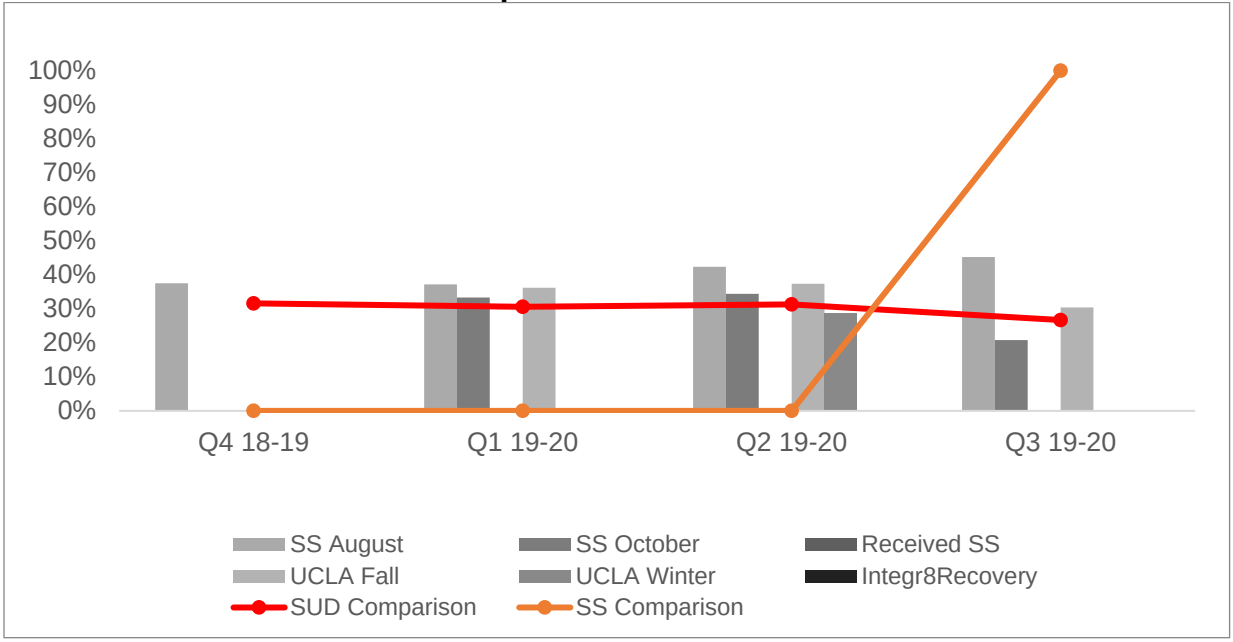


Figure 8.9: Engagement Rates by Sample over Time as Compared to Benchmarks

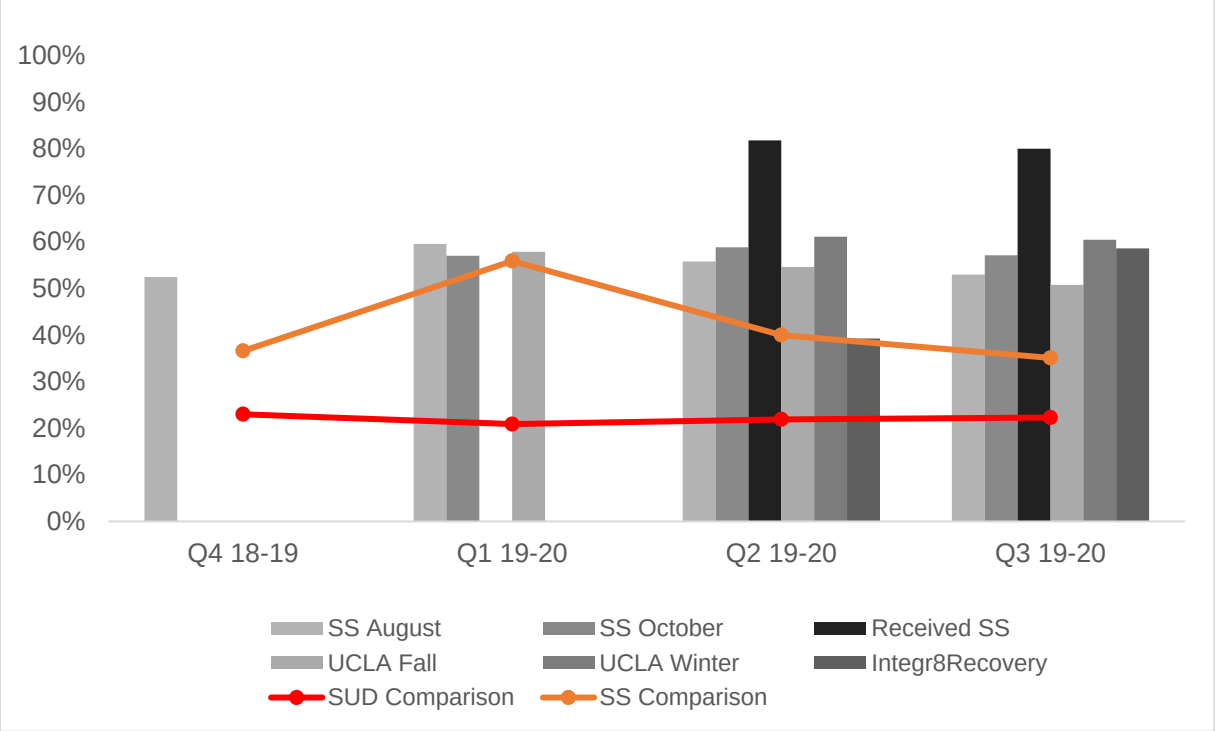


Figure 8.10: Retention Rates by Sample over Time as Compared to Benchmarks

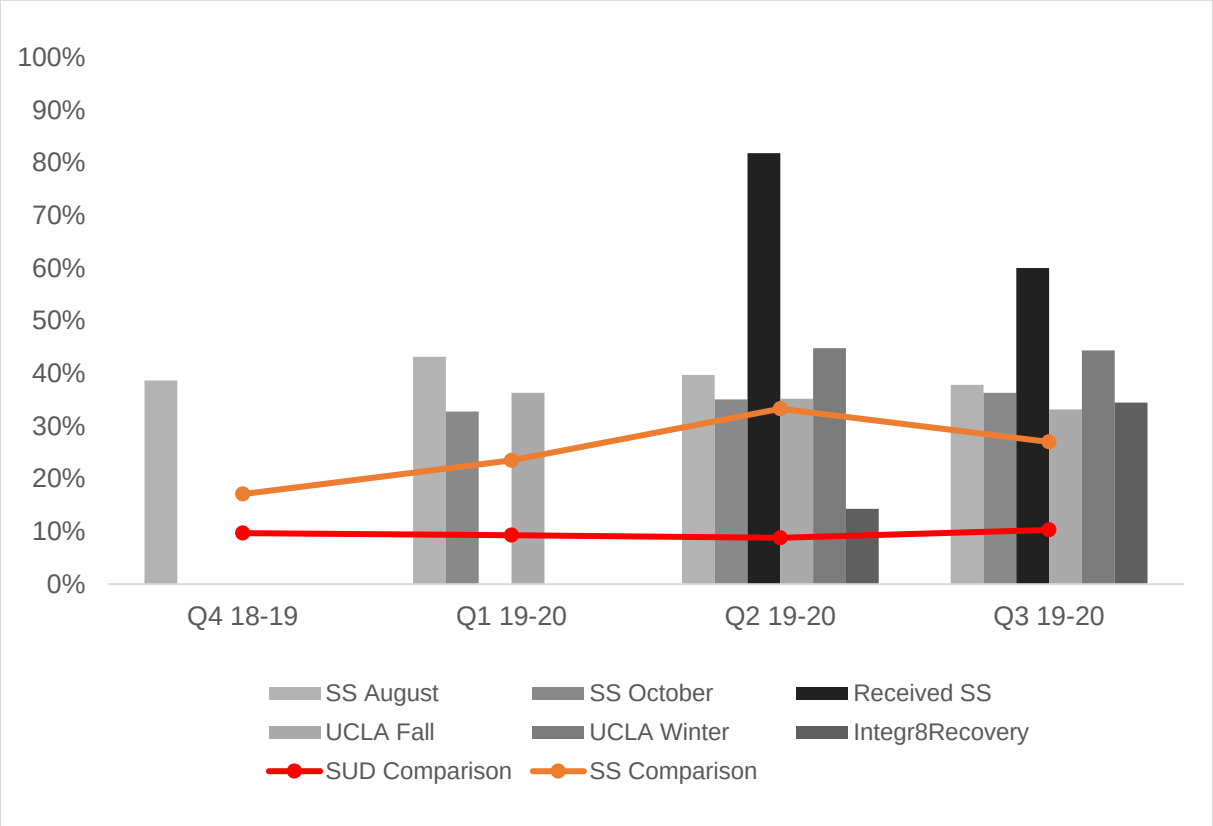


Figure 8.11: Average MHS Attended by Sample over Time as Compared to Benchmarks

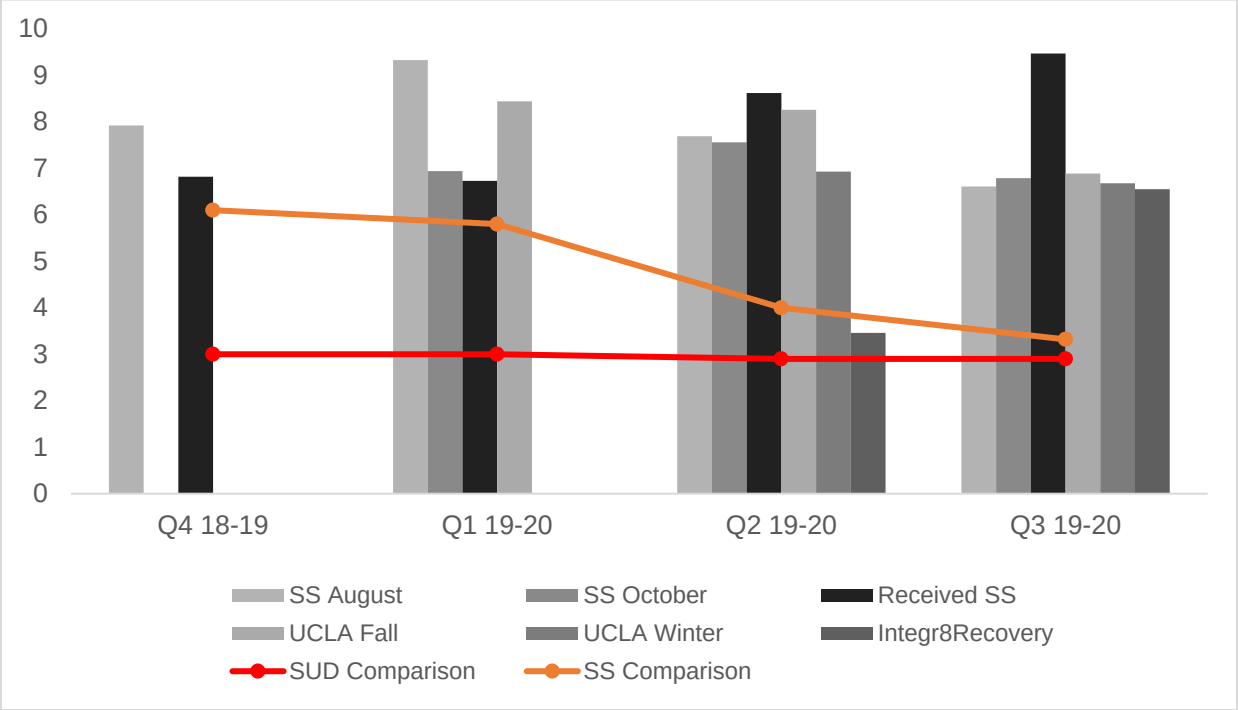
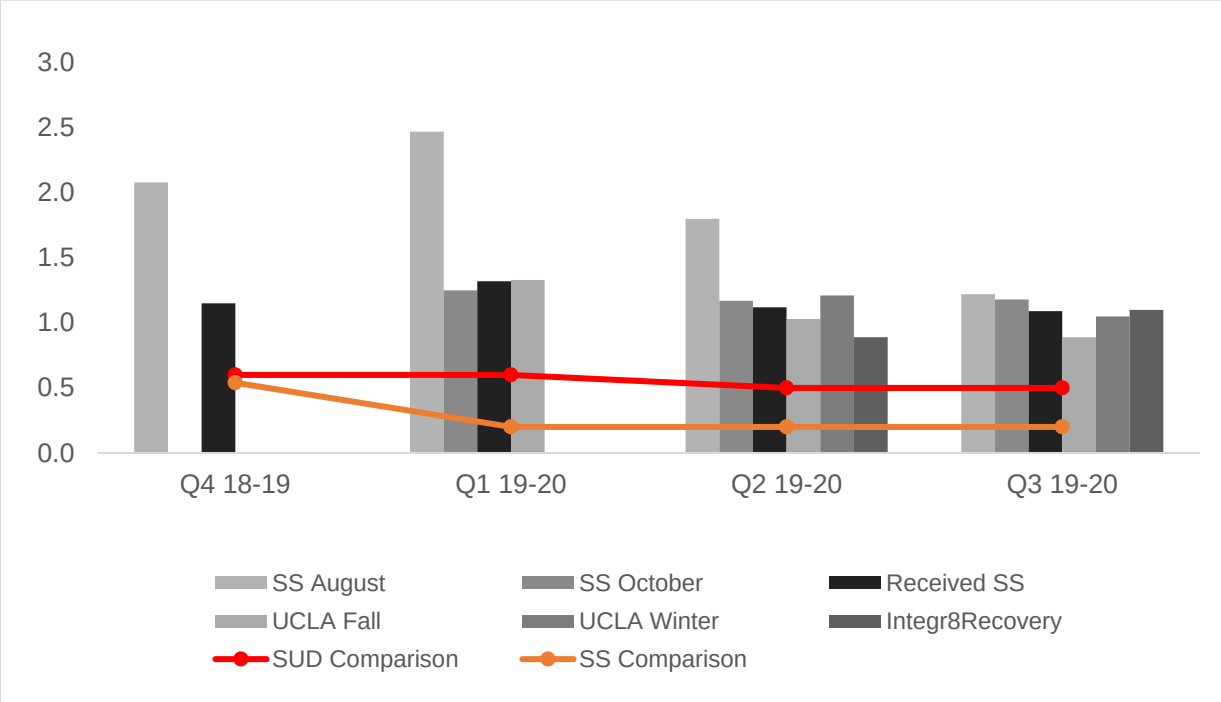


Figure 8.12: Average TCM Attended by Sample over Time as Compared to Benchmarks



UCLA Extension Fall 2019 Course Chart Review Findings

To better understand the findings from the quantitative performance indicators for the UCLA Extension Fall 2019 course, the QI unit conducted a chart review of mental health progress notes in IBHIS. The goal of the chart review was to determine the extent to which the course resulted in the improved integration of mental health and substance use issues in treatment planning and interventions, as documented in mental health progress notes in the electronic heath record, IBHIS. SACs that had high attendance in the course (at least nine of 11 classes, n = 11) were compared to those that had low attendance or did not participate in the Fall 2019 course (n = 3) and those that participated in the Winter 2020 course (n = 5). Only rehabilitation and group rehabilitation services were selected as these were the services for which it was expected that mental health and substance use be explicitly integrated. Sixteen SACs were excluded due to having no existing individual rehabilitation or group rehabilitation claims in IBHIS during the specified time periods. The Fall 2019 course took place weekly for three hours from September 25, 2019 to December 11, 2019. Ten progress notes were randomly selected across unique consumers for each SAC across Q1 (July 2019 to September 2019), which was the quarter directly prior to the course, and Q3 (January 2020 to March 2020), the quarter directly after the course. For those that participated in the Winter 2020 course, which took place in Q2, Q2 (October 2019 to December 2019) was used as the post comparison time point. Five of the progress notes were selected from Q1 and five were selected from Q2 or Q3.

Three reviewers provided ratings on 190 notes total with 25 notes double-coded for interrater reliability. Scoring for chart review tool was a 5-point Likert scale extensiveness rating for six items and a presence/absence rating for one dichotomous item (items detailed in Table 8.2 below). Please also view the Chart Review Tool (Attachment 1A.11) and Manual (Attachment 1A.12) for additional information. A two-way analysis of variance (ANOVA) was indicated that the effect of group (training group vs. comparison group, $F(1,186) = 0.97$, $p > .05$), time (pre vs. post, $F(1, 186) = 1.45$, $p > .05$), and the group by time interaction ($F(1,186) = 0.28$, $p > .05$) did not significantly relate to total score. However, the training group exhibited a higher percentage improvement in scores from the pre to post time point than the comparison group for most items. Initial interrater reliability was high among the three raters and was in fair range across the sample, (weighted kappa = 0.4) indicating some rater drift over time.

TABLE 8.3. CHART REVIEW RESULTS BY ITEM

	Training Group			Comparison Group		
	Pre	Post		Pre	Post	
Item	Mean (SD)	Mean (SD)	% improvement	Mean (SD)	Mean (SD)	% improvement
To what extent does the SACs' intervention or set of interventions align with the consumer's mental health objective as written in the DMH Treatment Plan?	2.42 (1.35)	2.84 (1.26)	17.36%	2.49 (1.44)	2.58 (1.18)	3.61%
To what extent does the SAC reference mental health symptoms in the progress note text?	2.41 (1.01)	2.44 (0.81)	1.24%	2.33 (1.06)	2.48 (1.01)	6.44%
To what extent does the SACs' intervention or set of interventions address mental health symptoms?	2.21 (1.16)	2.58 (1.08)	14.29%	2.28 (1.26)	2.45 (1.06)	7.46%
To what extent does the SAC reference Motivational Interviewing techniques focused on mental health in the progress note text?	1.07 (0.32)	1.22 (0.46)	14.02%	1.36 (0.81)	1.18 (0.59)	-13.24%
To what extent does the SAC reference Seeking Safety in the progress note text?	1.00 (0.00)	1.04 (0.27)	4.00%	1.08 (0.48)	1.05 (0.32)	-2.78%
To what extent does the SAC reference other behavioral techniques (not Seeking Safety) focused on mental health in the progress note text?	2.12 (1.18)	2.33 (1.12)	9.91%	1.90 (1.10)	2.13 (1.07)	12.11%
Does the SAC reference Medication-Assisted Treatment (MAT) in the progress note text?	1.00 (0.00)	1.02 (0.14)	2%	1.03 (0.16)	1.02 (0.16)	-0.97%

Figure 8.13: Chart Review Item Means by Group and Time

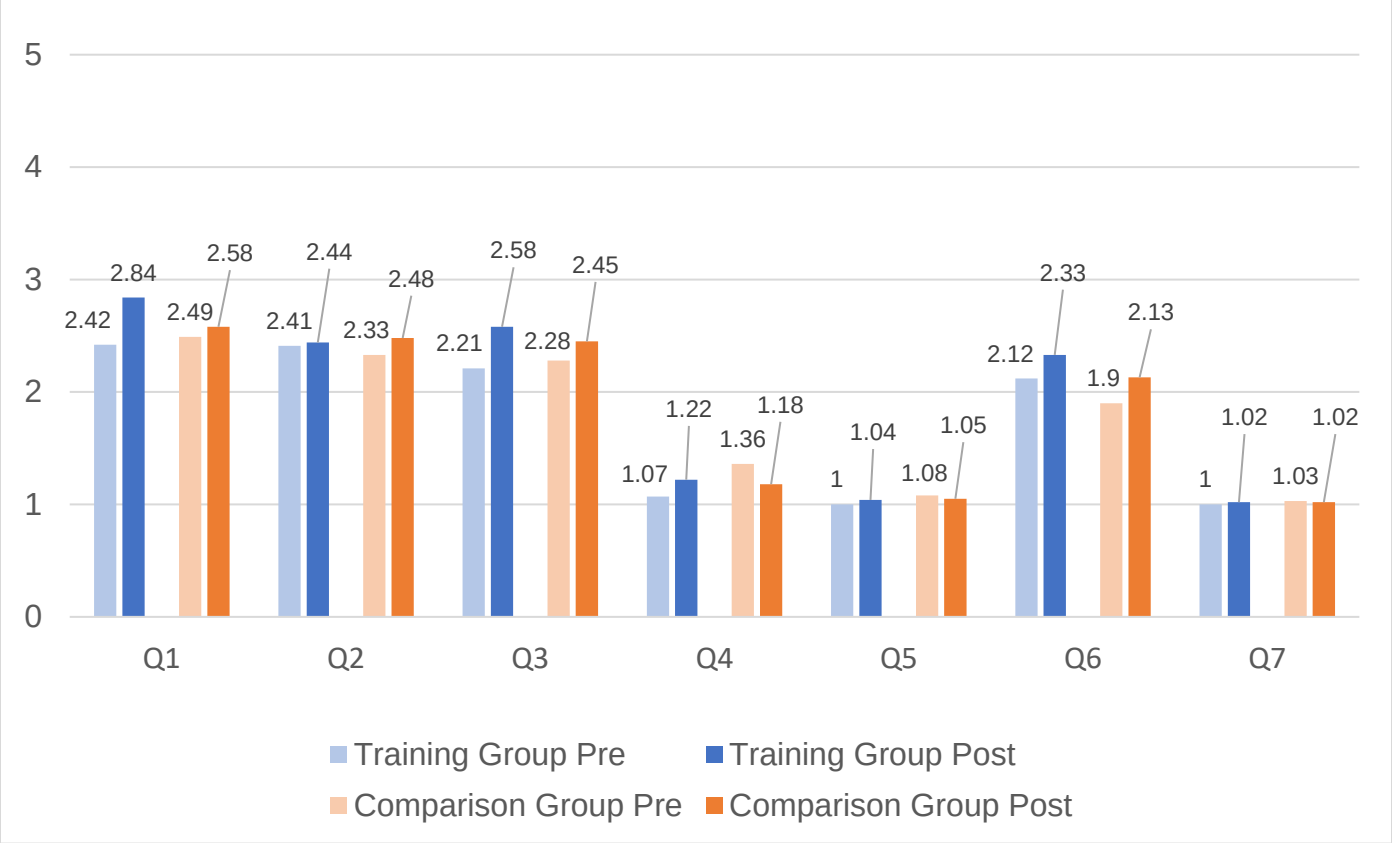


TABLE 8.4 PIP RESULTS SUMMARY – PROCESS MEASURES

Process Indicator	Baseline Measurement (B)	Re-measurement 1 (R1)	Re-measurement 2 (R2)	Dates of Baseline and Re-measurements	FINAL Measurement (F)
Percent of SACs responding that they agree or strongly agree with role teaming, and treatment items on the Outpatient Treatment Provider Survey	22/37 X 100 = 59.5%	18/27 X 100 = 66.7% Improvement (B): 12.1%	11/16 X 100 = 68.8% Improvement (B): 3.1%, X^2 = 0.57, p > .05	August 2019 (B); February 2020 (R1); August 2020 (Re-measurement 2)	
Percent of SACs responding that they feel very or extremely comfortable with SS	19/37 X 100 = 51.4%	18/27 X 100 = 66.7% Improvement (B): 29.8%	10/15 X 100 = 66.7% Improvement (B): 0%, X^2 = 1.9, p > .05	August 2019 (Baseline); February 2020 (Re-measurement 1); August 2020 (Re-measurement 2)	

SAC Outpatient Treatment Provider Survey Results

The SAC Outpatient Treatment Provider Survey was administered at three time points throughout FY 19-20 and FY 20-21 to determine the impact of interventions on the SACs' perceptions of their role, teaming, and treatment options as well as their level of comfort with various evidence-based models for COD treatment. Response rates for the survey decreased with each survey period with the initial survey response rate at 90.2% (37/41), the second survey at 65.9% (27/41), and the third survey at 40% (16/40). Overall, the percentages of SACs who agreed or strongly agreed with the understanding of their role and teaming items increased moderately over time. Please see figures 8.8 and 8.9 below for more detailed information on these particular items. The two items that decreased appear to present ongoing challenges, particularly clinicians reporting information regarding substance use from the assessment when making referrals. This is an area that will be targeted with the expanded use of multidisciplinary integrated care groups this year. Regarding the COD group item, it is not clear if fewer SACs agreed or strongly agreed with leading treatment groups that specifically target COD at the third administration because COVID-19 impacted their ability to run groups or if they were not addressing COD in these groups. As groups have gradually resumed in Q1 FY 20-21, it is an objective of this PIP to continue collecting data on this point and to examine the use of SS and Integr8Recovery groups through the VSee platform.

Figure 8.14: Percent Agree or Strongly Agree with Items on SAC Survey

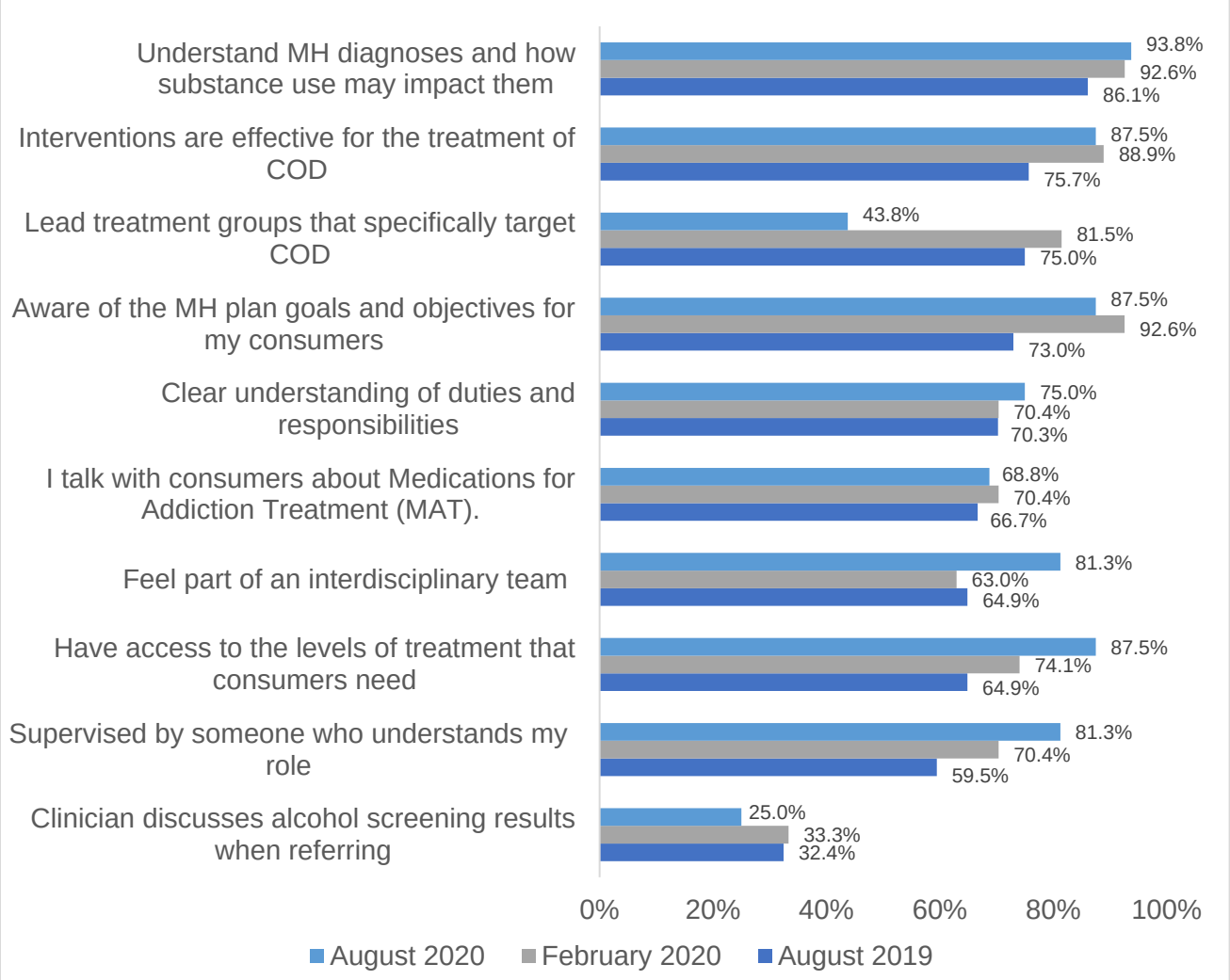
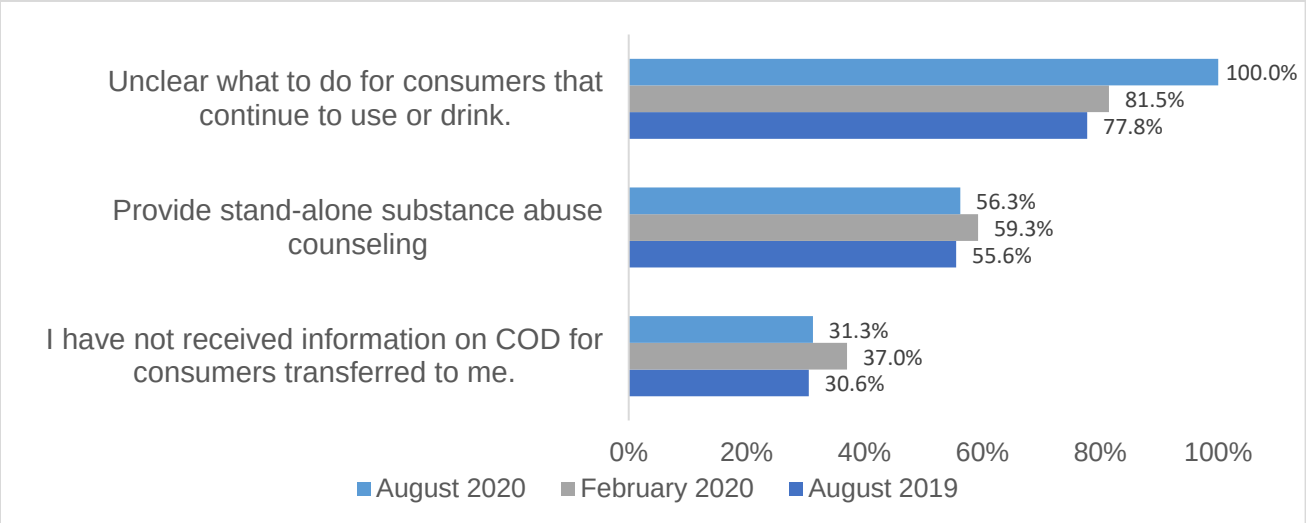
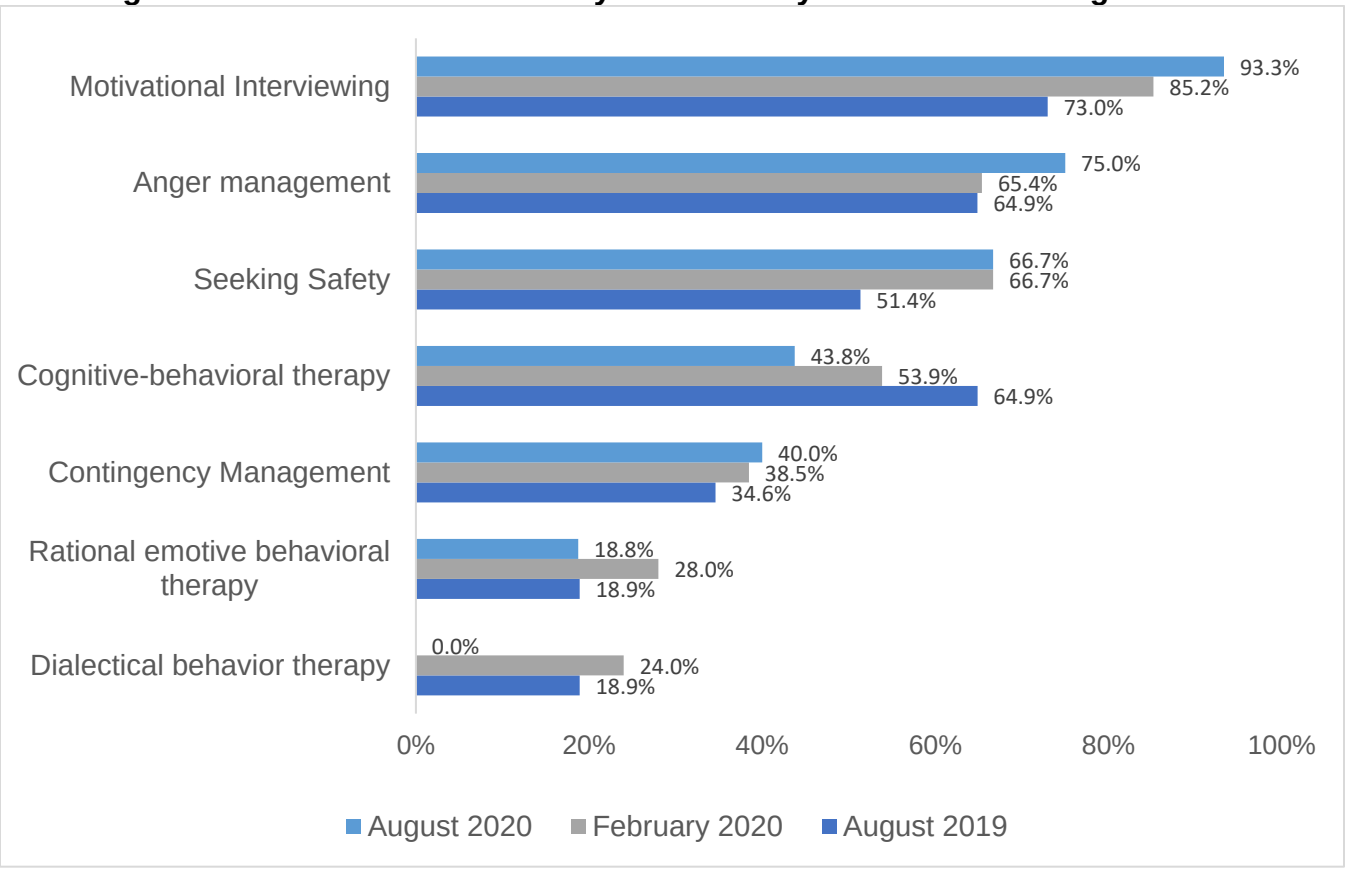


Figure 8.15 Percent Disagree or Strongly Disagree with Items on SAC Survey



The percent of SACs that reported feeling very or extremely comfortable using SS initially increased and then stayed the same from the second to the third administration of the survey (Figure 8.10). As trainings occurred in Q1 FY 19-20, the quarter before the second administration was completed, this might have contributed to an initial increase in comfort. When the third administration was completed in August 2020, this was following a quarter in which many SACs were not implementing groups due to the COVID-19 pandemic, which may have contributed to the plateau in comfort level.

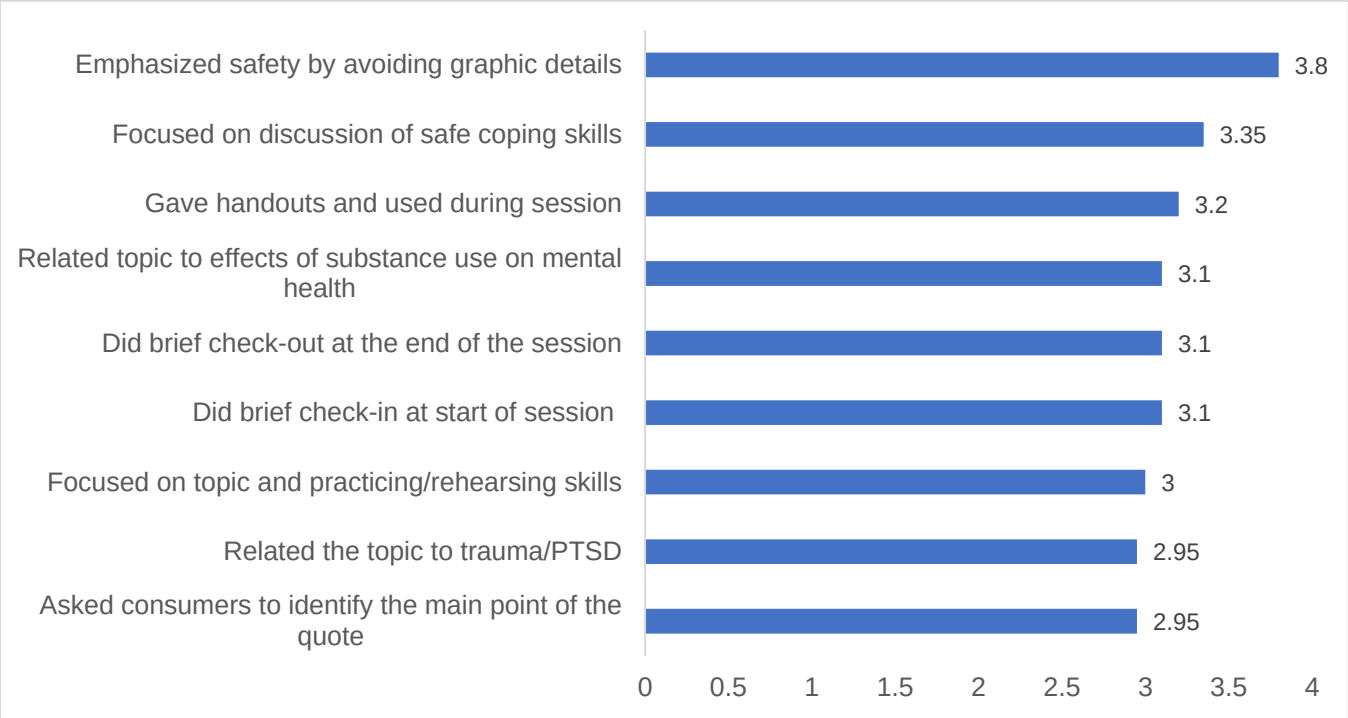
Figure 8.16: Percent of SACs Very or Extremely Comfortable Using EBPs



SS Brief Adherence Scale Results

Four of the SACs that regularly administered SS completed the SS Brief Adherence Scale across 20 sessions from December 2019 to early March 2020. The SACs stopped entering data using the scale in March as groups were paused due to the COVID-19 pandemic. Results indicate that the SACs reported doing most of the session activities “a lot” (3 out of 4 on the scale). They reported emphasizing safety in the group by avoiding discussion of graphic details the most across sessions (3.8/4) and asking consumers about the main point of the quotation and relating the topic to trauma or PTSD the least (2.95/4).

Figure 8.17: Mean Item Scores on Seeking Safety Brief Adherence Scale



Step 8: Describing the Data Analysis and Interpretation of PIP Results

WORKSHEET 9: LIKELIHOOD OF SIGNIFICANT AND SUSTAINED IMPROVEMENT THROUGH THE PIP

What is the conclusion of the PIP?

Given that the PIP was intended to take place over multiple years with several interventions to address a complex topic and that there have been significant impacts from the COVID-19 pandemic, it is premature to make a conclusion. From reviewing the study findings after this year, there have been some improvements, particularly for those consumers who were documented as receiving Seeking Safety and the Integr8Recovery groups. The Department would like to continue implementing the planned interventions as intended and to expand the use of these interventions as groups have started to resume using VSee technology. The chart review also indicated improvements in the SACs linking their interventions to the mental health objective in the treatment plan and mental health symptoms, which were important goals of the UCLA Extension Course. The percent of SACs that agreed or strongly agreed with understanding their role, were supervised by someone who understood their role, and feeling like part of an interdisciplinary team also increased over survey administration periods. There are other ongoing challenges that the survey identified, particularly regarding communicating information about substance use for COD referrals and implementing COD groups, and it is hypothesized that the expansion of Integr8Recovery groups and more support around teaming will help address these concerns in the upcoming PIP year.

Do improvements appear to be the results of the PIP interventions? Explain.

Analyses focused on the entire group of participants for the August and October 2019 SS trainings were difficult to attribute to the specific intervention given the heterogeneity of settings (e.g., a Full Service Partnership (FSP) team, serving one outpatient clinic vs. multiple clinics and service areas) and the lack of uniform implementation of the SS intervention. Analyses examining the group of consumers served by SACs that attended both the SS August or October training and the UCLA Fall 2019 course were similar to those for the separate samples, suggesting that attending both interventions did not significantly impact performance indicators. Of note, these analyses did indicate that, particularly for hospital re-admission rates, there is variability by clinic with one clinic in particular serving the majority of consumers that were re-hospitalized within seven and 30 days. By isolating the analyses to those consumers who were documented to have received SS through the group registration name or identified through survey or individual enrollment form, it appears that SS and Integr8Recovery were helpful in improving engagement in services. However, these findings are based on small samples. The comparison sample of consumers who received SS from staff other than SACs shows similarly low 7-day and 30-day re-admission rates for consumers enrolled in SS across the system. In comparison to both the sample of consumers who received SS from staff other than SACs and those that have a secondary SUD diagnosis and were not

served by a PIP intervention participant, consumers served by the PIP intervention participants had higher engagement and retention rates as well as average MH and TCM services attended. This suggests that there is a beneficial component to consumers working with these participants and that there is justification to continue PIP interventions with these samples.

Does statistical evidence support that the improvement is true improvement?

Chi square tests of independence did not indicate any significant changes in 7-day and 30-day psychiatric hospital re-admission rates. The chi-square test for engagement rates for the sample that received SS showed a statistically significant increase in rates over the quarters ($X^2 = 13.16$, $p < .05$). Average MHS also trended toward significance for the SS August sample with an increase in average services from Q4 FY18-19 to Q1 19-20 ($t = -1.79$, $p = .07$) and a decrease in average services from Q1 FY19-20 to Q2 FY 19-20 ($t = 1.92$, $p = .05$). On the other hand, average TCM services attended significantly decreased for the SS August 2019 sample from Q1 FY19-20 to Q2 FY19-20 ($t = -3.05$, $p < .05$) and from Q2 FY19-20 to Q3 FY 19-20 ($t = 3.04$, $p < .05$). The Integr8Recovery group showed a statistically significant increase in average MHS from Q2 to Q3 FY 19-20 ($t = -2.76$, $p < .05$) and retention rates also approached significance in a positive direction ($X^2 = 3.67$, $p = 0.06$). However, the chi-square test for engagement rates for the UCLA Extension Fall 2019 course sample showed a statistically significant decrease over time ($X^2 = 12.89$, $p < .05$). Average MHS also significantly decreased for the UCLA Fall 2019 group from Q2 FY19-20 to Q3 FY 19-20 ($t = -3.05$, $p < .05$) and average TCM services for the same sample significantly decreased from Q1 FY19-20 to Q2 19-20 ($t = 2.72$, $p < .05$).

Statistical analyses for the chart review were not statistically significant. However, there were consistent increases in percent change scores (pre to post) for the training group as opposed to the comparison group, which had some decreases in change scores. Higher percent change scores indicate more improvement in integration of SAC interventions and mental health symptoms and objectives.

Did any factors affect the methodology of the study or the validity of the results? If so, what were they?

Yes, as mentioned in Step 8, the initial difficulties in tracking the SS intervention made it challenging to isolate the consumers who had received the intervention and several PDSAs were implemented to increase tracking. The COVID-19 pandemic also significantly delayed intervention expansion. There were three new SS groups planned for additional clinics (Olive View, East San Gabriel Valley, American Indian Counseling Center) that were put on hold when groups were paused during COVID-19. There was also an additional Integr8Recovery group at an additional clinic (San Fernando Valley Mental Health) that was put on hold. Please see Attachment 1A.14 for a PDSA on addressing the impact of COVID-19.

What, if any, factors threatened the internal or external validity of the outcomes?

As mentioned in Step 8, it is difficult to isolate the effects of each intervention as there was overlap in participants between the August/October SS trainings and the UCLA Fall 2019 and Winter 2020 courses. SACs likely applied the knowledge that they gained in both trainings to consumers served in the subsequent quarters. It was also difficult to isolate the effects of the intervention, particularly SS, when including all consumers served as opposed to those consumers that were documented as receiving SS. Thus, this sample was examined separately from the larger group.

The SACs also represent a variety of settings. Some are placed in urgent care settings where they might not expect to see consumers for multiple consecutive sessions, some are on Full Service Partnership (FSP) teams where consumers are typically of higher acuity, and others are in outpatient settings where there is more regularity in consumer contact and potentially lower acuity consumers. For the samples with the most heterogeneity, including the SS August and October 2019 trainings and the UCLA Extension Fall 2019 and Winter 2020 course, it is challenging to determine how much these variables impacted re-admission and engagement and retention rates as well as average number of MH and TCM services attended. It was possible to create a separate sample that was documented to receive SS. However, it was more challenging to determine how widely the interventions taught in the UCLA Extension courses were applied outside of the chart review.

The COVID-19 pandemic also significantly impacted the SACs and other staff's ability to use the interventions in Q3 as all groups were initially paused, the focus was on urgent, high-need consumers, and some SACs were re-deployed as Disaster Service Workers (DSWs). Please see Attachment 1A.14 for the PDSA on SAC Activities during COVID-19. There were plans for additional SS groups to start at UCLA Olive View and East San Gabriel Valley clinics in Q3 that were delayed due to COVID-19. There was also a plan for Integr8Recovery to begin in San Fernando Valley Mental Health Center and that was similarly put on hold.

Was the improvement sustained through repeated measurements over comparable time periods? (If this is a new PIP, what is the plan for monitoring and sustaining improvement?)

The improvements in the performance indicators for different intervention samples shifted over time. There was a positive trend toward improvement for the consumers receiving SS and Integr8Recovery that the Department will continue to monitor for sustained improvement once the Q4 FY19-20 data are available and as groups are now able to resume.

Were there limitations to the study? How were untoward results addressed?

Yes, there were several limitations to the study. As previously discussed, it was difficult to isolate the effects of each intervention due to overlap in the SACs participating in the various interventions and the heterogeneity of the larger

consumers pool. To address this limitation, we attempted to better isolate the sample and only look at consumers that were documented as receiving SS. This was not possible for the UCLA Extension course samples as there was no specific way to document application of learning outside of the chart review. The samples for the groups documented as receiving SS (N = 34) and Integr8Recovery (N = 34) were also relatively small. The plan is to increase the number of consumers receiving these services now that groups are resuming through VSee.
What is the MHP/DMC-ODS's plan for continuation or follow-up? The Department would like to continue with the plans to roll out the Integr8Recovery groups and new SS groups that have been significantly impacted by the COVID-19 crisis. The Department would also like to continue with its collaboration with SAPC, which was difficult due to the shifting priorities for COVID-19 at the Department of Public Health. Additionally, the collaboration with the RAND Corporation on the Alcohol Use Disorder Toolkit and the Opioid Use Disorder Toolkit will provide much needed guidance on implementing MAT and other interventions for COD using a teaming process. Although the project was initially focused on supporting the use of MAT, data collection has uncovered that improving communication and teaming in DO clinics would be a useful support for multiple types of treatment interventions. It is hoped that this will supplement the work on integrated care models by providing concrete implementation guidance and support.
Additional Information or comments

Step 9: Address the Likelihood of Significant and Sustained Improvement Through the PIP

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