

**COUNTY OF LOS ANGELES
DEPARTMENT OF MENTAL HEALTH**

**MENTAL HEALTH SERVICES ACT (MHSA)
MID-YEAR ADJUSTMENT TO THE
THREE-YEAR PROGRAM AND EXPENDITURE PLAN
CAPITAL FACILITIES AND TECHNOLOGICAL NEEDS
PROJECT PROPOSALS**



SEPTEMBER 2017

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Framework and Goal Support

Technological Needs Component Funds will be used for a coordinated program of technology-enabled improvements to the Los Angeles County (LAC) mental health services delivery system including Contract Provider projects and consumer/family empowerment projects. Every Mental Health Services Act (MHSA) program is information dependent. The projects included in this Mid-Year Adjustment to the LAC Department of Mental Health (LAC-DMH) MHSA Information Technology Plan (MHSA I/T Plan) are intended to continue to make the right information available to authorized users when and where they need it and in the format most appropriate to their intended use. This approach includes consumers and family members, the providers of service (whether LAC-DMH operated or contracted), LAC-DMH in its role as the Local Plan (LP) administrator, and the State Department of Mental Health (SDMH).

The key elements of LAC-DMH's strategy include:

- Broad stakeholder involvement to assure that the MHSA I/T Plan delivers strategic improvements across the entire spectrum of the LAC mental health services and mental health consumer community
- Information captured in digital form as close to the source as possible
- Adherence to applicable standards where they are available to facilitate lawful and appropriate movement of information throughout the mental health services delivery system in support of:
 - Secure access to information by consumers and families
 - Continuity of care
- Simplification and streamlining of processes to improve convenience for consumers and families and operational efficiency for providers and administrators

Long-term benefits will derive from:

- An emphasis on the system
- Foundation projects upon which the LAC mental health community can continue to build its information capabilities
- Empowering consumers and their families to use computer technology to access and manage health information to make more informed decisions
- Providing consumers and their families with access to tools that will improve communication with their providers and promote recovery, wellbeing, resiliency, and autonomy

To achieve the benefits stated above, LAC-DMH has identified Technology Projects that are consistent with the overarching MHSA technology goals of increasing consumer and family empowerment by providing the tools for secure consumer and family access to health information and modernization and transformation of clinical and administrative information systems to ensure quality of care, parity, operational efficiency and cost effectiveness. Although stated as distinct goals, LAC-DMH views the consumer as the focus of each project included in the enclosed proposal. At the core of each is the desire to develop integrated information

systems infrastructure that improves the overall well-being of consumers receiving public mental health services in LAC.

Consumers served by LAC-DMH may receive mental health services at service locations directly operated by LAC-DMH and/or service locations operated by Contract Providers. To achieve parity, the technology needs of Contract Providers have been considered as these providers are critical to achieving technological integration and seamless service delivery. Building technological infrastructure on one side of the LAC-DMH enterprise without providing a mechanism to support the other achieves nothing.

Investment Portfolio of Projects

LAC-DMH is requesting a total of \$15,000,000 in MHS funding for the following eight projects:

1) EHR Strategy: Continuous Process Improvement Programs

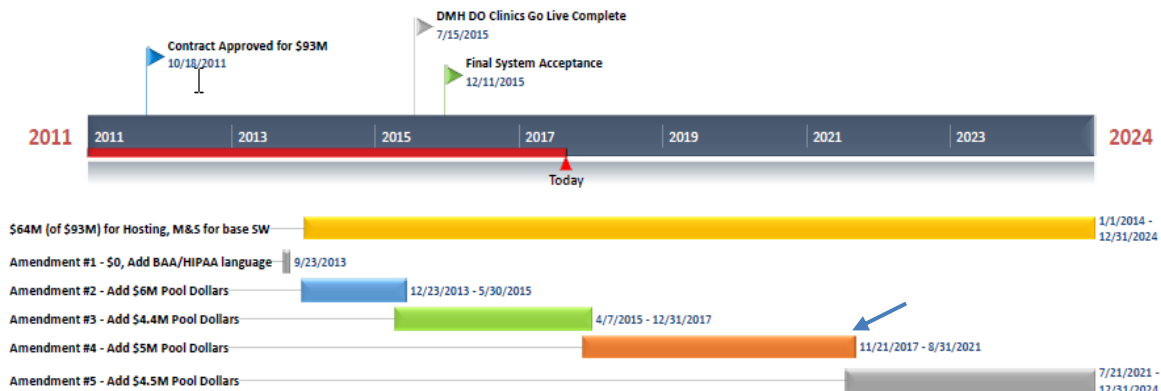
The Integrated Behavioral Health Information System (IBHIS) provides integrated clinical, administrative and financial functionality to LAC-DMH in its role as a provider of mental health services and its role as the Local Plan Administrator. IBHIS provides LAC-DMH clinicians access to consumer clinical records regardless of where each consumer was seen previously in the LAC-DMH network. Clinicians have access to medication history information, recent assessments, laboratory and psychological test results, and, when appropriate, clinician notes from prior visits.

The implementation of IBHIS is one of the most significant and costly digital transformations that LAC-DMH undertook. LAC-DMH will work with clinicians to maximize the use and benefits of IBHIS. IBHIS is supported as a continuous process improvement project. To that end, LAC-DMH will:

- Work with clinicians to create an ongoing development environment by actively tracking and shepherding productivity innovations.
- Actively monitor emerging initiatives with the potential to impact clinicians' satisfaction and productivity.
- Use the clinical council to drive up adoption of IBHIS enhancements that can improve workflow, productivity, and usability.
- Help to create a process to help clinicians to identify highly repetitive tasks and to evaluate the effectiveness of automation solutions.
- Ensure that clinicians are aware of user interface improvement initiatives.

LAC-DMH is requesting MHS funding to add \$5 million in Pool Dollars to its IBHIS agreement with Netsmart Technologies, Inc. under Amendment Number Four for LAC-DMH required professional services needed for post-implementation system operational support and future system modifications as LAC-DMH completes the onboarding to IBHIS of Contract Providers and responds to new federal, State and local initiatives. This funding will be used from mid-contract year four (starting January 2018) through approximately contract year seven of the eleven-year contract. See timeline in Figure 1.

Figure 1: IBHIS Timeline



The \$5M in Pool Dollars will be used as described in Table 1 below to improve client care, enhance care coordination and improve operational efficiencies.

Table 1: Key Reasons for Additional \$5M in Pool Dollars

COSTS	CHANGE REQUEST CATEGORIES	BENEFITS
\$3M	Maintain ongoing Systems Operations Continue Maintenance and Support for Meaningful Use (MU) certified software modules. - CareConnect: Need to exchange CCDs - CarePathways: Need to report MU clinical quality measures	- Improve client care - Obtain incentive payments
\$0.75M	Implement System Modifications for Current Needs - Enhance the Client View Portal (CVP) used by external providers - Implement additional system modification requests	- Improve care coordination - Improve DMH CBO and clinic operational efficiencies
\$1.25M	Acquire Additional Services to Meet Future Needs Acquire additional unique System modifications, Other Professional Services, Ancillary Software, Hosting Services, Maintenance and Support Services as LAC-DMH responds to future federal, State and local initiatives.	- Act timely to accommodate LAC-DMH needs over next ~3 1/2 years
\$5M	TOTAL	

2) Consumer/Family Access to Computer Resources

Mental health consumers and family members need access to computer resources and they should have access to computer training and technical assistance. Computer skills training and technical assistance are essential to ensure that consumers and family members are able to effectively use computer resources made available to them.

In collaboration with the Los Angeles County Department of Public Library (Library), LAC-DMH has set-up dedicated workstations and printers in 27 secure consumer/family labs in service settings at LAC-DMH clinics and wellness centers through Los Angeles County using previously approved MHS IT Plan funding. LAC-DMH staff members provide computer skills training and Library IT technicians provide hardware/software maintenance and technical support. The workstations are imaged with the standard software image used on workstations at Library locations throughout the County, empowering consumers and their families to use IT systems at any County Library location as well.

The current Memorandum of Understanding (MOU) between the LAC-DMH and the Library ends in June 2018. LAC-DMH is requesting funding to extend the MOU with the Library for five additional years to continue to provide support for the current 27 consumer labs and to expand the program to additional LAC-DMH clinical and wellness locations. Also under consideration, LAC-DMH may place similar dedicated Personal Computers (PCs) in all LAC-DMH clinic reception areas for client access to medical records and other useful information as well as place PCs for client use at Senior Housing sites. Additional project expansion ideas include enhanced computer skills training programs and deployment of additional technologies or technical assistance resources. Note that additional use cases might require additional funding.

A total of \$1,500,000 is requested for this project. See project cost breakdown in Table 2.

Table 2: Costs - Consumer/Family Access to Computer Resources

Category	Costs
Library Technical Support Staff	\$1,170,000
Library backend software	\$75,000
Endpoint (PC) software	\$5,000
Endpoints (PCs, kiosks, printers)	\$250,000
Total	\$1,500,000

3) Healthcare Enterprise Analytics Strategy

A healthcare enterprise analytics strategy will deliver value based on the triple aims of health outcome, cost and experience. It defines what LAC-DMH will accomplish with analytics. It considers the people, processes and technology needed to deliver these results.

Healthcare Analytics Architecture

LAC-DMH needs to craft the analytics technology framework. The new healthcare analytics architecture represents the next generation of enterprise analytics. This is happening as payers and providers seek to meet the goals of population health and value-based care, and deliver more value via pervasive analytical insight. This new architecture will enable LAC-DMH to gain access to a portal that will provide analytical data. It also supports the integration of the vast amounts and variety of health data, enables data science, and functions in real time — deploying insights directly back into the operational and clinical workflows.

Implementation of the electronic health record necessitates redesigning the current LAC-DMH Data Warehouse. Along with new data collected in IBHIS, forthcoming MHS programs (Prevention and Early Intervention, Workforce Education and Training, and Innovation) will bring in additional new clinical, administrative, and financial data that must be stored in the Data Warehouse. This project will prepare LAC-DMH for warehousing these data from disparate data sources as well as establish appropriate resources for warehousing legacy data.

A total of \$1,000,000 in MHS funding is requested for this project. See project cost breakdown in Table 3 below.

Table 3: Costs - Data Warehouse (DW) Redesign

Category	Costs
Infrastructure (IaaS)	\$320,000
Reporting software	\$250,000
Consulting services (data warehouse/reporting design, implementation)	\$200,000
Training (IT and program staff)	\$230,000
Total	\$1,000,000

4) Virtual Care Strategy: Telepsychiatry Expansion

Improving a continuous experience by DMH clinic based staff across devices, platforms and locations will involve investments in areas such as wireless infrastructure, virtualization technology and workspace aggregators, among others. At least ten clinics will become Digital Workplaces.

LAC-DMH encompasses over 4,000 square miles and some areas are sparsely populated and remote from major medical centers and mental health service delivery resources. The initial Telepsychiatry IT Plan Project achieved its objectives in greatly reducing the cost and inconvenience to clients as the result of a lack of qualified clinicians, particularly psychiatrists to perform medication reviews. The project also resulted in improved linguistically matched care to non-English speaking DMH consumers. Lastly, the older adult program was able to use this technology to improve service during home visits.

Additional MHS funding is requested to refresh the now aged telepsychiatry video conferencing equipment throughout LAC-DMH, expand the telepsychiatry program to additional sites and add use cases (e.g., child interactive settings). Also under consideration is Project Echo like functionality to share knowledge with providers through virtual clinics. See project cost breakdown in Table 4.

Table 4: Costs – Telepsychiatry Expansion

Category	Costs
Endpoints accessories (PC/laptop external camera, speaker, microphone) (100 X \$500)	\$50,000
Technology Refresh of dedicated Video Conferencing terminals (40 X \$3,000)	\$120,000
On-site support 3 years (through LAC Internal Services Department)	\$300,000
Specialty projects (e.g., child interactive setting, etc.)	\$500,000
Total	\$1,000,000

5) LAC-DMH Resource Search/Performance Dashboards

LACDMH will be developing performance monitoring dashboards that have four delivery goals:

- Depiction of current conditions across LAC-DMH
- The ability to perform root-cause analysis
- Contextual access to historical data for trending and planning purposes
- Actionable insight and predictions to prevent future issues

In fulfilling these delivery goals, an ideal performance-monitoring dashboard framework must aim to:

- Provide both top-level views and contextual drilldown, as well as intuitive navigation and search mechanisms, and raw data access for a broad spectrum of users.
- Provide for the rapid triage and remediation of performance issues, by allowing a broad spectrum of users to access meaningful data.

LAC-DMH will develop a platform to improve capability to locate readily available and effective mental health treatment resources:

- Gain a 360-degree view of the client. The ability to view data spanning multiple programs enables LAC-DHM to serve clients’ holistic needs. LAC-DMH can achieve meaningful collaboration with a single, unified view of the client. Only with a 360-degree view is client-centered care possible.
- Streamline front-end client intake and coordination workflow. This will create interactive workflow amongst clinics and Access Center. All data will be fed into EHR.(IBHIS)
- Improve Outcomes effectiveness. Easy-to-access centralized client data, automated workflows, and reminders help more quickly assess needs, review results of care plans underway, identify additional benefits available, and complete follow-up activities in a timely, efficient manner.

- Support mobile workforce. Give clinic workers the tools they need—offline, online, or in the cloud—so they can spend more time with clients in the field. Support communications through a choice of devices to enable mobility.

Table 5: Costs – LAC-DMH Resource Search/Executive Dashboard

Category	Costs
Data Analytics and Dashboard Reporting Tool	\$200,000
End User and Application Developer Software Platform/Tool Licenses (SaaS)	\$2,500,000
Consulting Services	\$300,000
Total	\$3,000,000

6) Digital Workplace Strategy: Wireless Local Area Network (LAN) Infrastructure

The digital workplace is the foundation of digital business transformation, but to truly enable it requires rethinking, and rebuilding endpoint computing deliverables. This project implements wireless access (Wi-Fi) at DMH clinics to provide ease of system access for DMH staff and other department providers. For example, co-located DHS clinicians will have ease of secure access to DHS and DMH systems. The change in work styles means work can happen anywhere — with a continuous experience. Improving a continuous experience across devices, platforms and locations will involve investments in areas such as virtualization technology and workspace aggregators, among others. Embracing new device types and user-driven choice scales only when apps and services are endpoint-agnostic.

Table 6: Costs – Wi-Fi at LAC-DMH Clinics

Category	Costs
Infrastructure (~\$200,000 per site)	\$2,275,000
Endpoints	\$225,000
Total	\$2,500,000

7) Hybrid Integration Platform: Migration from Bimodal to Adaptive Integration.

LAC-DMH at this stage is well-positioned to support most of the integration needs that are emerging from digital business initiatives. However, we are burdened by a centralized organizational model, which has become a bottleneck for adaptive delivery.

This project will modernize LAC-DMH integration strategy and infrastructure to enable a unified approach to integration by adopting a comprehensive integration platform as a service (iPaaS) solution that meets both LAC-DMH’s integration and information management needs.

LAC-DMH will migrate to an integration environment that is embedded in the organization's digital culture and is business-aligned. Integration needs to be a pervasive, cross-organizational

competency that involves internal business partners (and often external partners as well), and this competency cannot be comprehensively fulfilled via a centralized organizational model.

The integration infrastructure serves as the conduit for contract providers to submit claims to DMH (and share client data). This project expands and upgrades the existing infrastructure to meet the growing volume of transactions due to the on boarding of additional Contract Providers (Trading Partners).

Table 7: Costs – Integration Infrastructure Upgrade

Category	Costs
Integration platform as a service (IPaaS)	\$500,000
Total	\$500,000

8) IT Asset Management Modernization Program

LAC-DMH does not currently have adequate IT Asset Management (ITAM) oversight or control. Without ITAM business driven digital sourcing decisions become an increasingly inadequately managed mix of older and newer technology. This hampers the delivery of care.

Like other government organizations and for-profit businesses, LA-DMH expects to be substantially transformed by its strategic use of digital technologies. This shifts more of the organization's resources from traditional hardware and software to digital services that must also be managed as assets.

LAC-DMH needs a modern ITAM program that reflects its business and IT strategy, and invests in the people, process, tools and information needed to drive greater value from its ITAM. The LAC-DMH ITAM team must keep up and identify and manage the technology assets by business priorities and outcomes.

LAC-DMH will procure and implement an enterprise level Asset Life Cycle Management solution that includes capability to use smartphones in the field to read barcodes and accept digital signatures. Both the LAC-DMH Chief Information Office Bureau (CIOB) and the Administrative Services Bureau (ASB) will use the solution to enable operational support and inventory control teams to track items from receipt of equipment, through deployment, through transfer to other workers/sites, to end of life (salvage). The ITAM solution will provide an accurate account of technology asset life cycle costs and risks to maximize the business value of technology strategy, architecture, funding, contractual and sourcing decisions. With the ITAM, LAC-DMH will reduce costs, reduce risk and improve the availability of technologies used by workers in the delivery of care. See project cost breakdown in Table 8.

Table 8: Costs – IT Asset Management

Category	Costs
ITAM solution	\$250,000
Temporary technical support staffing	\$250,000
Total	\$500,000

LAC-DMH Contact Information

If you have any questions regarding the project proposals, please contact Mirian Avalos, LAC-DMH Chief Information Officer at (213) 251-6481, msavalos@dmh.lacounty.gov.