

Mono County

Semi-Statewide Enterprise Health Record

Multi-County Collaborative INN Project

Annual Innovative Project Report

*Reporting Period: July 1, 2022 – June 30, 2023  
Project Period: January 25, 2023 - January 25, 2028*

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# Project Overview and Local Need

1. Please describe this Innovation project and its purpose.

This is a multi-county, scalable INN project that stems from a larger Semi-Statewide Enterprise Health Record (EHR) project CalMHSA is concurrently leading (the EHR Project). CalMHSA is partnering with 23 California counties – collectively responsible for 27% of the state’s Medi-Cal beneficiaries – on the Semi-Statewide Enterprise Health Record project.

This project is unique in that it engages counties to collaboratively design a lean and modern EHR to meet the needs of counties and the communities they serve both now and in the future.

The key principles of the EHR project include:

* **Enterprise Solution:** Acquisition of an EHR that supports the entirety of the complex business needs (the entire “enterprise”) of county behavioral health plans. This approach also facilitates data sharing between counties for patient treatment and payment purposes as patients move from one county to another.
* **Collective Learning and Scalable Solutions:** Moving from solutions developed within individual counties to a semi-statewide cohort allows counties to achieve alignment, pool resources and bring forward scaled solutions to current problems, thus reducing waste, mitigating risk and improving quality.
* **Leveraging CalAIM:** CalAIM implementation represents a transformative moment when primary components within the EHR are being re-designed (e.g., clinical documentation and Medi-Cal claiming), while data exchange and interoperability with physical health care — toward improving care coordination and client outcomes — are being both required and supported by the State.
* **Lean and Human-Centered**: Engaging with experts in human-centered design to reimagine the clinical workflow in a way that reduces “clicks” (the documentation burden), increases client safety and natively collects outcomes.
* **Interoperable**: Typically, county behavioral health has, in response to state regulations, developed documentation that is out of alignment with data exchange standards. We are reimagining the clinical workflow so critical information about the people we serve is formatted in a way that will be interoperable (standardized and ready to participate in key initiatives like health information exchanges).

**2. Please describe how this project makes a change to an existing practice in the field of mental health, including but not limited to application to a different population.**

This project will meet the general requirements by making a change to an existing practice in the field of mental health, specifically, the practice of documentation of care provision in an EHR that meets the needs of the county’s workforce and the clients they serve.

3. Please describe how this project impacts your County’s local need(s):

Before the introduction of SmartCare, Mono County struggled with an outdated EHR system characterized by limited reporting capabilities and a problematic user interface. Since the implementation of SmartCare, Mono County Behavioral Health has experienced notable enhancements in various processes and workflows.

For instance, the previous EHR system necessitated manual counting for essential reporting, as it lacked the capability to separate out basic client demographic information. In contrast, SmartCare offers several reports containing required information for audits, such as the Triennial and the EQRO.

There is considerable anticipation within Mono County Behavioral Health for the integration of Power BI into the EHR. This integration will give rise to a reporting dashboard showcasing not only Mono County's data but also that of other participating counties.

There is a keen interest in design improvements for the "Staff Calendar." Clinicians seek enhancements that would enable them to view the status of in-progress and completed notes directly from their calendar, eliminating the need to run a separate report to locate ongoing documentation. SmartCare has recognized these requests, and they are currently in the development queue.

# Progress Update and Identified Changes

1. Please describe your project progress from the date of approval by the Mental Health Services Oversight and Accountability Commission (MHSOAC) through June 30, 2023.

*County partners, in this section, consider addressing the following:*

Mono County Behavioral Health has fully implemented the new EHR system and staff have been reassigned from other duties to support Implementation and ongoing management of the EHR. CalMHSA has played a crucial role throughout the project, proving to be an essential asset, particularly during the implementation phase. The CalMHSA staff have consistently demonstrated understanding, friendliness, and tireless dedication to ensuring that our county possesses all the necessary resources for success in the EHR system. Following implementation, collaborating counties have shown a willingness to join forces in generating ideas for EHR improvement and have been open to sharing valuable reports.

2. Has your county experienced any changes in project implementation and/or local need since the submission of your Appendix for MHSOAC approval? What is/are the reason(s) for this/these change(s)?

Mono County has not experienced any changes in project implementation or local need since the submission of the Appendix for MHSOAC approval.

3. How does this change/these changes noted in #2 above impact or modify your project plan and/or timeline?

Not Applicable, see above.

# CalMHSA’s Internal Evaluation and Qualitative Analysis of the State of Electronic Health Records Across California Counties

During this project period, CalMHSA partnered with IDEO, a global design and research company with over 40 years of consulting experience working in social and government sectors. IDEO was uniquely positioned to assist CalMHSA based on their strong focus on capacity building and creating new, strategized approaches to previously unsolved problems. CalMHSA, at the request of participating counties, sought to create a semi-statewide EHR system, built according to the needs of the user, that not only meets documentation and regulatory requirements, but also integrates provider needs for transparent communication, augments support for decision-making and best practices and, through increased efficiency, reduces staff burnout and improves workforce retention.

IDEO conducted interviews with over 50 county staff from participating county agencies, primarily focused on outpatient psychiatry services, to better understand different users’ interactions and needs within an EHR. The staff interviewed included doctors, nurses, social workers and peer counselors. Mono County Behavioral Health has 16 staff participate in these interviews. IDEO also met with EHR experts and analogous experts, such as digital storytellers, data visualization scientists, and behavioral scientists to draw inspiration for what was possible for this future EHR vision. They also conducted an in-depth analysis of the transitional EHR, SmartCare, to better understand what could be leveraged versus what would need to be customized to achieve the goals as stated above.

Some key needs identified from these interviews included:

* An improved EHR design that allows for a holistic view of patient data rather than siloed across different areas of the software
* Better facilitation of record keeping and sharing across the platform
* Improved utilization of automaticity and intentional pauses as moments to accurately capture structured data to reduce redundancy, disseminate key information and promote best practices while maintaining flexibility and trust amongst users
* Transparent dialogue and a disruption of bias patterns in the software so the data entered can promote equitable outcomes and care

# Evaluation Data/Learning Goals/Project Aims

CalMHSA contracted with the RAND Corporation during this project period to conduct a comprehensive evaluation of the project. To ensure a systematic evaluation of the migration to the new EHR platform, RAND is employing two measurement approaches: 1) a pre-post user survey, 2) pre-post task-based usability testing. RAND selected evidence-based EHR metrics grounded in measurement science that are precise, reliable and valid.

The goal of the pre-post user survey is to measure user experience and satisfaction of existing EHRs and the new EHR across all participating counties. This pre-phase of the survey was administered during this project period and prior to the “go-live” implementation of the new EHR system. It was sent to all EHR users in participating counties (see Exhibit 1 for Pre-Survey User Data). The survey (see Exhibit 2) included outcome measures such as the Post-Study System Usability Questionnaire (PSSUQ), satisfaction with EHR attributes, satisfaction with specific tasks in the EHR, and likelihood of recommending the EHR. The PSSUQ is a 16-item standardized questionnaire that originated from the IBM project called System Usability Metrics in 1988. This standardized tool allows for a single metric to be calculated as an average of the 16 items, which provides a reliable measure that can be compared to other studies that have used the tool. The tasks included in the survey were also based on the most common use cases across different role types (e.g., prescribers, medical staff, licensed clinicians, non-licensed providers and administrators).

The goal of the pre-post task-based usability testing is to obtain objective measures of EHR usage and burden (as measured by the length of time required to complete specific, common tasks in the EHR) before and after the migration to the new EHR. The pre-phase of this usability testing was conducted from May 30, 2023, to June 30, 2023, and included 30 prescribers and licensed clinicians in the select counties who opted to participate. The usability tests asked each participant to complete three tasks in a simulated EHR environment with simulated client scenarios. Tasks included creating an assessment/evaluation and progress note for a new client visit, reviewing a chart for an existing client and creating a progress note for a return client visit. The outcome metrics included task completion rate, time on task, errors and post-task satisfaction. These usability tests complement the user survey to provide objective measures of the EHRs in a controlled environment.

The post-phase of the survey and task-based usability testing will likely occur in approximately January/February 2024 to allow users to become accustomed to the new EHR platform. The optimal time to conduct a post-migration assessment is when users have established stable and sustainable behaviors, which has typically been three to six months after implementation. The post-survey will also address the original learning goals and project aims regarding quality, safety/privacy, satisfaction and outcomes.

Overall, the evaluation will eventually allow for an assessment of how the transition to the new EHR resulted in changes to usability and user satisfaction.

|  |
| --- |
| Learning Goals/Project Aims |
| Quality   * Comprehensiveness of client care * Efficiency of clinical practice * Interactions within the health care team * Clinician access to up-to-date knowledge |
| Safety/Privacy   * Avoiding errors (i.e., drug interaction) * Ability to use clinical data for safety * Personal and professional privacy |
| Satisfaction   * Ease of use * Clinician’s stress level * Rapport between clinicians and clients * Client’s satisfaction with the quality of care they receive * Interface quality |
| Outcomes   * Communication between clinicians and staff * Analyzing outcomes of care * System usefulness * Information quality |

Future annual reports will include status updates on the above learning goals and project aims.

# Program Information for Individuals Served

This project focuses on transforming current EHR systems and processes counties use for the provision of behavioral health services. Accordingly, we have not estimated the number of individuals expected to be served annually. As noted previously, the participating counties in the Semi-Statewide Enterprise Health Record project are collectively responsible for serving the population of Medi-Cal beneficiaries who need specialty mental health and/or substance use disorder treatment services among approximately 27% California’s Medi-Cal beneficiaries, or among approximately 4,000,000 people.

Regarding specific project information on individuals to served, this project focuses on transforming the current EHR system and the processes California counties use for the provision of behavioral health services rather than directly testing an innovative approach to service delivery.

# Budget and Annual Expenditures

|  |  |  |  |
| --- | --- | --- | --- |
| **FY 22-23 ACTUAL PROJECT EXPENDITURES BY SPECIFIC BUDGET CATEGORY** | | | |
| **COUNTY:** | **Mono** |  |  |
| **EXPENDITURES** |  |  |  |
|  | PERSONNEL COSTS (salaries, wages, benefits) | **FY 22-23** | **TOTAL** |
| 1 | Salaries | $45,000.00 | $45,000.00 |
| 2 | Direct Costs |  |  |
| 3 | Indirect Costs | $4,500.00 | $4,500.00 |
| 4 | **Total Personnel Costs** | $49,500.00 | $49,500.00 |
|  |  |  |  |
|  | **OPERATING COSTS\*** | **FY 22-23** | **TOTAL** |
| 5 | Direct Costs |  |  |
| 6 | Indirect Costs |  |  |
| 7 | **Total Operating Costs** |  | $ |
|  |  |  |  |
|  | **NON-RECURRING COSTS (equipment, technology)** | **FY 22-23** | **TOTAL** |
| 8 |  |  |  |
| 9 |  |  |  |
| 10 | **Total non-recurring costs** |  | $ |
|  |  |  |  |
|  | **CONSULTANT COSTS/CONTRACTS** | **FY 22-23** | **TOTAL** |
| 11a | Direct Costs: CalMHSA | $334,592.53 | $334,592.53 |
| 11b | Direct Costs: RAND evaluation | $150,000.00 | $150,000.00 |
| 12 | Indirect Costs |  |  |
| 13 | **Total Consultant Costs** | $484,592.53 | $484,592.53 |
|  |  |  |  |
|  | **OTHER EXPENDITURES** (explain in budget narrative) | **FY 22-23** | **TOTAL** |
| 14 |  |  |  |
| 15 |  |  |  |
| 16 | Total Other Expenditures |  | $ |
|  |  |  |  |
|  | **EXPENDITURE TOTALS** | **FY 22-23** | **TOTAL** |
|  | Personnel (total of line 1) | $45,000.00 | $45,000.00 |
|  | Direct Costs (add lines 2, 5, and 11 from above) | $484,592.53 | $484,592.53 |
|  | Indirect Costs (add lines 3, 6, and 12 from above) | $4,500.00 | $4,500.00 |
|  | Non-recurring costs (total of line 10) |  |  |
|  | Other Expenditures (total of line 16) |  |  |
| **TOTAL INDIVIDUAL COUNTY INNOVATION BUDGET** | | **$534,092.53** | **$534,092.53** |
|  |  |  |  |
|  |  |  |  |
|  | **CONTRIBUTION TOTALS\*\*** | **FY 22-23** | **TOTAL** |
|  | County Committed Funds | $105,000.00 | $105,000.00 |
|  | Additional Contingency Funding for County-Specific Project Costs |  |  |
|  | **TOTAL COUNTY FUNDING CONTRIBUTION** | $639,092.53 | $639,092.53 |

|  |  |  |
| --- | --- | --- |
| **BUDGET CONTEXT - EXPENDITURES BY FUNDING SOURCE FOR FY 22-23** | | |
| **COUNTY:** | **Mono** |  |
| **ADMINISTRATION:** |  |  |
| A. | Estimated total mental health expenditures for administration for the entire duration of this INN Project by FY & the following funding sources: | **FY 22-23** |
| 1 | Innovation (INN) MHSA Funds | $384,092.53 |
| 2 | Federal Financial Participation |  |
| 3 | 1991 Realignment |  |
| 4 | Behavioral Health Subaccount |  |
| 5 | Other funding | $105,000.00 |
| 6 | Total Proposed Administration | $489,092.53 |
|  |  |  |
| **EVALUATION:** |  |  |
| B. | Estimated total mental health expenditures for EVALUATION for the entire duration of this INN Project by FY & the following funding sources: | **FY 22-23** |
| 1 | Innovation (INN) MHSA Funds | $150,000.00 |
| 2 | Federal Financial Participation |  |
| 3 | 1991 Realignment |  |
| 4 | Behavioral Health Subaccount |  |
| 5 | Other funding |  |
| 6 | Total Proposed Evaluation | $150,000.00 |
|  |  |  |
| **TOTALS:** |  |  |
| C. | Estimated TOTAL mental health expenditures (this sum to total funding requested) for the entire duration of this INN Project by FY & the following funding sources: | **FY 22-23** |
| 1 | Innovation(INN) MHSA Funds\* | $534,092.53 |
| 2 | Federal Financial Participation |  |
| 3 | 1991 Realignment |  |
| 4 | Behavioral Health Subaccount |  |
| 5 | Other funding\*\* | $105,000.00 |
| 6 | Total Proposed Expenditures | $639,092.53 |

# Exhibit 1 – Pre-Survey User Data

1. **User Roles**
2. 96 prescribers
3. 121 prescriber med staff
4. 730 clinician LPHA
5. 723 non-LPHA
6. 1081 admin
7. 17 other
8. 157 no response

1. **Users by County (Please note: Counties participating in the Multi-County INN project are noted with an “\*” below)**
2. Colusa - 5
3. Contra Costa - 6
4. Fresno - 290
5. Glenn - 29
6. Humbolt\* - 67
7. Imperial\* - 189
8. Kern - 585
9. Kings\* - 44
10. Lake - 74
11. Marin - 29
12. Mono\* - 16
13. Placer\* - 103
14. Sacramento - 303
15. San Benito\* - 20
16. San Joaquin\* - 165
17. San Luis Obispo - 119
18. Siskiyou\* - 27
19. Sonoma\* - 101
20. Stanislaus - 104
21. Tulare\* - 232
22. Ventura\* - 299
23. Other - 9
24. Did not respond - 89

# Exhibit 2 – Pre-Survey Questions

Usability and Satisfaction Metrics

1. **PSSUQ: On a scale between "Strongly Disagree" and "Strongly Agree," please rate the following statements (1 - Strongly Disagree to 7 - Strongly Agree).**
2. Overall, I am satisfied with how easy it is to use this system.
3. It was simple to use this system.
4. I was able to complete the tasks and scenarios quickly using this system.
5. I felt comfortable using this system.
6. It was easy to learn to use this system.
7. I believe I could become productive quickly using this system.
8. The system gave error messages that clearly told me how to fix the problems.
9. Whenever I made a mistake using the system, I could recover easily and quickly.
10. The information provided with this system was clear.
11. It was easy to find the information I needed.
12. The information was effective in helping me complete the tasks and scenarios.
13. The organization of information on the system screens was clear.
14. The interface of this system was pleasant.
15. I liked using the interface of this system.
16. The system has all the functions and capabilities I expect it to have.
17. Overall, I am satisfied with this system.

1. **Based on your experience, please indicate how satisfied you are with the way your EHR performs on the following items (1 - Very Dissatisfied to 5 - Very Satisfied, NA).**

1. Ability to use the EHR without needing IT or additional support
2. Supports delivery of quality healthcare
3. Interactions within the care team
4. Amount of time spent in the EHR
5. Your stress level
6. Rapport between providers and clients
7. Data privacy and security
8. Access to up-to-date information
9. Usefulness of alerts
10. Comprehensiveness of client care
11. Efficiency of clinical practice
12. Avoiding errors (such as overlooking a drug interaction, selecting the wrong intervention or scheduling the wrong service time)
13. Amount of information presented on each screen
14. Amount of data entry required
15. Response time (i.e., speed of system response or loading time)
16. Reliability (i.e., system performs correctly every time)
17. Costs of providing care
18. Inclusivity or adequacy of demographic data fields

1. **Based on your experience, how satisfied are you with the way your EHR allows you to perform the following tasks? (1 - Very Dissatisfied to 5 - Very Satisfied, NA)**

1. Review progress notes
2. Obtain and review lab results
3. Obtain and review imaging or test results
4. Review past and current medications or prescriptions
5. Identify allergies
6. Update medication lists
7. Enter a progress note with all relevant service indicators (e.g., person contacted, contact type, place of service, service intensity, etc.)
8. Create and maintain problem lists
9. Customize templates
10. Prevent providers from signing a document if required fields are not complete
11. Link a new episode or admission record to previous care coordination activities
12. Enable documentation of social determinants of health (SDOH) or Z-codes
13. Bill for services in a timely manner
14. Complete a psychosocial assessment or screening
15. Enter new outpatient lab orders
16. Enter orders for other tests
17. Add/renew/discontinue prescriptions
18. Receive drug interaction or dosage error alerts when writing prescriptions
19. Receive drug allergy alerts when writing prescriptions
20. Prevent other adverse events
21. Schedule appointments
22. Manage a closed-loop referral process (i.e., make a referral to an outside entity and track if the referral was completed)
23. Manage client caseload (e.g., identify people at risk or those who have not engaged in services in the last 60 days)
24. Run reports on metrics across your client network (e.g., number of clients dealing with homelessness, timeliness to treatment, number of referrals, etc.)
25. Analyze outcomes of care
26. Send quality measures to other entities (e.g., preventive screening rates)
27. Facilitate continuity of care and follow-up across organizations or providers
28. Communicate with clients electronically
29. Generate documents in my client's preferred language

1. **How likely are you to recommend this EHR to a colleague? (0-to-10-point scale)**