SB-82/833 EVALUATION WEBINAR

MENTAL HEALTH CRISIS ADULT/TAY PROGRAMS IN CALIFORNIA: EVALUATION PLAN OVERVIEW

May 14, 2020

UCDAVIS BEHAVIORAL HEALTH CENTER OF EXCELLENCE

MHSOAC Mental Health Services Oversight & Accountability Commission

Welcome!

- Slides will be available to participants after the webinar
- Submit your questions in the chat box
- All participants are muted, please check your speakers for sound
- Issues? Email bherevia@ucdavis.edu


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Quantitative Evaluation Plan

University of California, Davis

Evaluation Team

Dr. Melnikow & Dr. Padovani

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Quantitative Analysis Overview

- Conceptual framework: Crisis Continuum
- Organizational framework: Logic Model
- Question-based Approach
  - Specific and testable evaluation questions that specify:
    - Population
    - Intervention
    - Comparison group
    - Outcome

Quantitative Analysis Overview (continued)

Stakeholder Input

- Insures relevance
- Provides key contextual variables

Statistical Analysis

- Regression analysis
  - Generalized linear model framework
  - Extensions to longitudinal and clustered data when appropriate

Crisis Continuum

ACUTE CRISIS STAGE (if needed):

First Point of Contact and Care:

- Law Enforcement (Mobile Crisis Response Teams)
  - 911 calls
  - Triage
  - 5150 hold, arrest, or referral to mental health care

Second Point of Contact and Care

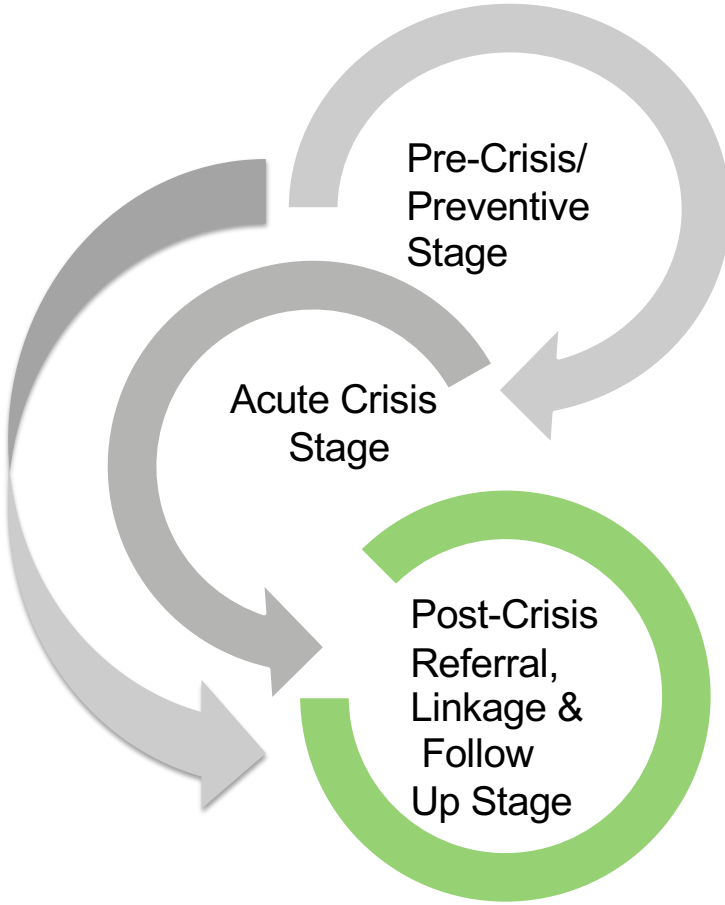
- Emergency Department
  - Initial evaluation
  - Psychiatric boarding
  - Place 5150 hold (72 hours), wait can be > 72 hours
- Mental Health Urgent Care Clinics
- Acute Short-Term Crisis Facilities
  - Evaluation (23 hours)

Third Point of Contact and Care

- Inpatient psychiatric facilities
- Crisis residential programs
- Stabilize and release client

REFERRAL SERVICES AND LINKAGE TO CARE:

- Outpatient psychiatric care
- Long-term housing
- Community-based services
- Substance Use Services



Priority Clusters

Priority clusters group county programs targeting specific stages

First Responder: Interventions in the Acute Crisis Stage

- Butte, Humboldt, Los Angeles, San Francisco, Sonoma, and Yolo counties

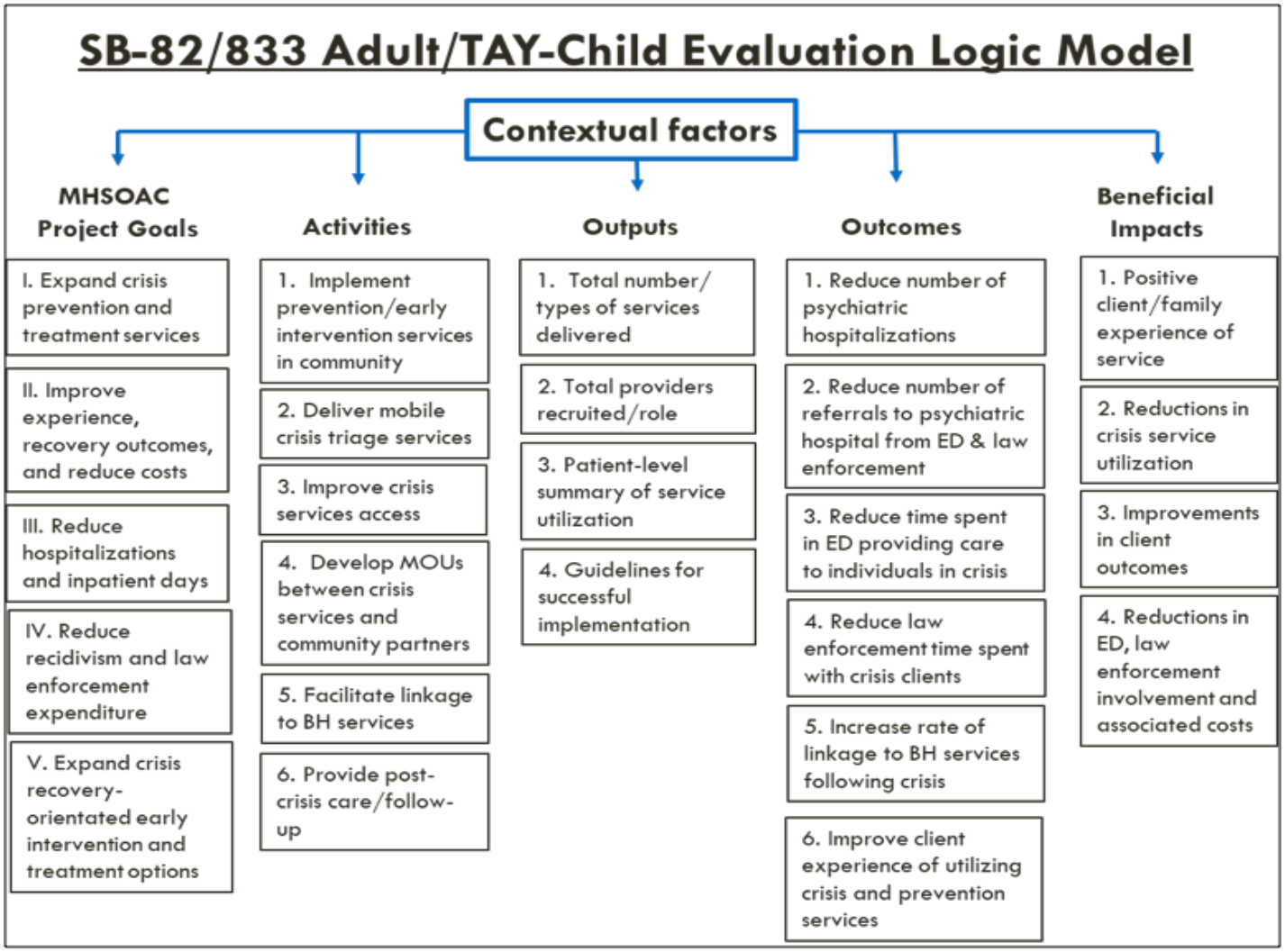
Crisis: Interventions in the Acute Crisis Stage

- City of Berkeley, Los Angeles, Merced, Sacramento, San Francisco, Stanislaus, and Tuolumne counties

Linkage: Interventions to Enhance Post-Crisis Referral, Linkage, and Follow-up

- Alameda, Butte, Calaveras, City of Berkeley, Humboldt, Merced, Placer, Sacramento, San Francisco, Tuolumne, Ventura, and Yolo counties

SB-82/833 Adult/TAY-Child Evaluation Logic Model



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Key Evaluation Outcomes

The Evaluation Plan will address outcomes based on stated MHSOAC goals:

- Goal 1: Expand Crisis prevention and treatment services
- Goal 2: Improve experience, recovery outcomes, and reduce costs
- Goal 3: Reduce hospitalizations and inpatient days
- Goal 4: Reduce recidivism and law enforcement expenditure
- Goal 5: Expand crisis-recovery oriented early intervention and treatment options

Evaluation Questions

Evaluation Question	Logic Model Outcome	MHSOAC Project Goals
Question 1	1. Reduce the number of psychiatric hospitalizations.	1. Reduce hospitalizations and inpatient days.
Question 2	3. Reduce emergency department time spent providing care to individuals in crisis.	1. Expand crisis prevention and treatment services. 5. Expand crisis-recovery oriented early intervention and treatment options.
Question 3	4. Reduce law enforcement time spent with crisis clients.	1. Expand crisis prevention and treatment services. 4. Reduce recidivism and law enforcement expenditure.
Question 4	5. Increase the rate of linkage to behavioral health services following crisis.	1. Expand crisis prevention and treatment services. 2. Improve experience, recovery outcomes, and reduce costs. 5. Expand crisis-recovery oriented early intervention and treatment options.
Question 5	4. Reduce law enforcement time spent with crisis clients.	4. Reduce recidivism and law enforcement expenditure.

Question 1: Among Behavioral Health Clients, Did SB-82 Expansions Reduce the Rate of Psychiatric Hospitalizations?

Effect of SB-82 programs on the age-specific rate of psychiatric hospitalization

- Assess variation by program type and program implementation
- Data from 2 years prior and 2 years after program implementation
- Sample: 9,000 individuals per priority cluster

Estimate and compare

- Age-specific hospitalization rates before and after program expansions
- Control for potential confounders (client demographics, mental health history, and county-level contextual factors)

Event history analysis framework

- Robust multivariate Poisson model allows for time-varying indicators of between-client time at risk of hospitalization
- Arise from variation in client entry and exit from the cohort

Question 2: Among Counties Receiving SB-82 Grants, Did SB-82 Expansions Reduce the Rate of Mental Health Emergency Department Encounters?

OSHPD ED Encounter Data for all SB-82 Counties

- All emergency room encounters from 12 months prior and 12 months after program implementation

Multistage Transitions Model

- Clients transition between three risk groups :
  - •No mental health crisis encounters (initial group)
  - •One encounter ("at risk" of repeated ED encounters)
  - •Repeated mental health crisis encounters (Two+ ED encounters)

Effective countywide mental health crisis intervention should reduce client transitions between risk groups.

Controls for client-specific factors, county-level socioeconomic factors, and contextual factors (access to public transportation and quality of Medi-Cal managed care plans)

Question 3: Among Clients Seeking County Mental Health Crisis Services, Did SB-82 Expansions Reduce the Time Law Enforcement Spend with Crisis Clients?

First Responder Priority Cluster: 9,700 Projected Clients

Strategy One:

- Collect baseline data in counties tracking law enforcement response encounters from the early period of program implementation
- Compare baseline data to post-baseline data collected at the end of the study period
- Analyze using generalized linear models to estimate the effect on law enforcement officer time-in-field with crisis clients

Strategy Two:

- Estimate the effect of mobile response teams on probability a mental health crisis results in arrest or jail time
- Compare outcomes of clients who reach the mobile response team on either side of opening/closing hours
- Clients with crises just before closing and just after opening get the mobile response team
- Clients with crises just after closing and just before opening do not

Choice of strategy depends on quality and type of data eventually available from First Responder counties

Question 4: Among SB-82 Programs Linking Behavioral Health Clients to Follow-Up Mental Health Services, Were Clients More Likely to Utilize Post-Crisis Behavioral Health Services?

- 9,000 clients from Linkage counties with data from one year prior to and after implementation of SB-82 programs
- Outcome: Effect of SB-82 linkage programs on the probability a client utilizes follow-up services in the 6 weeks following a mental health crisis encounter
- Account for Selection Bias
  - Create quasi-random treatment and control groups using propensity score matching via Coarsened Exact Matching
- Analysis of the treatment and control groups
  - Fixed effect multiple logistic regression
  - Controlling for: county-level demographics, socioeconomic characteristics, contextual factors

Question 5: Did SB-82 Expansions Reduce Recidivism Among Behavioral Health Clients?

- Data from two years prior and two years after program implementation for approximately 9,000 clients per priority cluster
- Compare age-specific recidivism rates before and after program expansions controlling for potential confounders (client demographics, mental health history, and county-level contextual factors)
- Event history analysis framework
    - Robust multivariate Poisson model allows for time-varying indicators of between-client time at risk of recidivism arising from variation in client entry and exit from the cohort
- Estimate the effect of SB-82 programs on the age-specific rate of recidivism, as well as how this effect varies with program type and program implementation

Data Sources

We will collect county-level data for the quantitative analysis:

- Behavioral health client and services data
  - Sourced from county EHRs
- SB-82 expansions client and services data
- Office of Statewide Health Planning and Development (OSHPD) emergency department encounters
- American Community Survey (ACS) for county population and economic characteristics
- County contextual factors (stakeholder identified):
  - California Transit Association (CTA) public transit infrastructure data
  - Medi-Cal Managed Care Quality Improvement and Performance Measurement Reports

How Qualitative Methods Will Be Utilized to Incorporate Stakeholder Experiences Into the Evaluation of the SB-82-Funded Programs

University of California, Davis
Evaluation Team
Dr. Savill

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Qualitative Evaluation of SB-82 Services

Qualitative methods represent an important component of the evaluation.

The three primary aims of incorporating qualitative methods into the evaluation are:

1. To ensure that stakeholders perspectives are fully represented
2. To address key MHSOAC aims where quantitative data may not be available
3. To provide a richer context that goes beyond the numbers

Qualitative Evaluation of SB-82 Services

MHSOAC Key Aims for the SB-82 Funded Triage Services

Goal 1	Expand crisis prevention and treatment services
Goal 2	Improve experience, recovery outcomes, and reduce costs
Goal 3	Reduce hospitalizations and inpatient days
Goal 4	Reduce recidivism and law enforcement expenditure
Goal 5	Expand crisis-recovery oriented early intervention and treatment options

Qualitative Evaluation of SB-82 Services

MHSOAC Key Aims for the SB-82 Funded Triage Services

Goal 1	Expand crisis prevention and treatment services
Goal 2	**Improve experience, recovery outcomes**, and reduce costs
Goal 3	Reduce hospitalizations and inpatient days
Goal 4	**Reduce recidivism and law enforcement expenditure**
Goal 5	**Expand crisis-recovery oriented early intervention and treatment options**

Qualitative Evaluation of SB-82 Services

Goal 2	Improve experience, recovery outcomes, and reduce costs

- Explore **clients'** and **family members'** experiences of receiving crisis care, and its subsequent impact on their lives
- Understand the impact of expanded crisis team deployment on mental health service provision and outcomes from the perspective of **crisis service providers**

Qualitative Evaluation of SB-82 Services

Goal 4	Reduce recidivism and law enforcement expenditure

- Understand the system-level impact of expanded crisis team services on mental health and law enforcement service provision from the perspectives of **crisis service** and **law enforcement** providers

Qualitative Evaluation of SB-82 Services

Goal 5	Expand crisis-recovery oriented early intervention and treatment options

- To explore **clients'** and **family members'** experiences of receiving follow-up care post-crisis, and whether the care received impacted engagement in recovery-oriented treatment

- To understand the impact of expanded crisis team services engaging clients in long-term recovery-oriented care from the perspective of **crisis service providers**

Qualitative Evaluation of SB-82 Services

Methods:

- Conduct remote semi-structured interviews with clients, family members, SB-82 program service providers, and law enforcement partners
- Aim to recruit at least **55 participants**: 15 clients, 15 family members, 15 providers, and 10 law enforcement partners
- Interviews will be audio recorded, transcribed, and analyzed utilizing an inductive approach to thematic analysis

Timeline:

- Findings to be submitted as part of the final report due **June 2023**

Stakeholder Outreach & Engagement

University of California, Davis

Evaluation Team

Dr. Gosdin

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Importance of Stakeholder Engagement

- Integral in shaping the evaluation of mental health triage crisis intervention services and SB-82 funded programs
  - Feasibility
  - Effectives
  - Generalizability
  - Outcomes
- Provide opportunities for UC Davis to learn about programs'
  - Challenges
  - Successes
  - Areas for improvement

Importance of Stakeholder Engagement (continued)

Provide information that may explain occurrences not clearly shown in data

- Important resources and services for mental health crisis intervention
- Possible gaps in the mental health and crisis triage literature

Plan for UC Davis Stakeholder Steering Committee

- Mental health crisis steering committee comprised of community members with professional and/or personal experiences with crisis interventions
- Provide ongoing feedback regarding the evaluation
- Participate in two yearly meetings, webinars and MHSOAC quarterly meetings

Stakeholder Expertise & Experiences

Category	Type of Stakeholder
Service Users	• Consumers, clients, persons with a history of with mental health crises
Family Members/Advocates	• Family members of individuals that have received crisis services and are actively involved in their care.
Manage, Implement, Oversee	• Government employees • Managers and data analysts from county health programs.
Provide Direct Services	• First responders (EMT, firefighters, police, sheriff) • Healthcare providers (ED physicians, psychiatrists, mental health providers, social workers and nurses) • Nonprofit representatives
Other	• Family advocates • Advocacy groups • Community members

First Stakeholder Meeting

December 3, 2019, at the Center for Healthcare Policy and Research in Sacramento

Learned about the professional and personal experiences of clients who received mental health crisis triage services and from individuals who provide these services

There were 9 attendees at this stakeholder meeting including:

- A client
- Client Navigator
- Family Advocate
- Law Enforcement Representative
- Public School Representatives
- Emergency medicine physician
- Representatives from NAMI
- UC Davis officials

First Stakeholder Meeting (continued)

Stakeholders discussed issues seen working with those in mental health crisis including:

- Lack of continuity of care
- Problems associated with hospitalization and what constitutes "good" care
- Need for client-centered care and community education that includes family/peer advocates
- Need for diverse services addressing social needs such as housing and transportation and long-term care

First Stakeholder Meeting (continued)

Issues and suggestions to data collection was also discussed

- Importance of capturing data on those who fall through the cracks including those who do not follow up or receive referrals
- Tracking this data, using Avatar to collect client's histories for the purpose of comparing multiple mental health crises across different health systems and/or agencies

Future Stakeholder Activities

- Periodic emails (every 3-5 months) to share project updates
- Future in-person dates: June 2020*, December 2020, June 2021, December 2021
- Monthly Zoom calls
- Stakeholder communication to be integrated into SB-82 quarterly newsletters

**Postponed due to Covid-19*

Questions?

Thank you for your time and participation.

References

- **Evaluation Plan Summary and Qualtrics Survey:**
  - https://mhsoac.ca.gov/30-day-public-comment-period-triage-draft-evaluation-plan
    - Everyone will receive this link after the webinar and in follow-up emails
    - Thank you for your feedback!

- **Please join us for the next Evaluation Webinar on Thursday, May 21st:**
  - This is a joint webinar with UC Davis and UCLA and will include stakeholder voices
  - Register Here: https://bit.ly/3fOCrXe

- **Project Website**
  - https://hss.semel.ucla.edu/sb82/

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