Mental Health Services
Oversight & Accountability Commission

AB 1315 Advisory Committee Meeting Agenda

June 14, 2019
10:00 AM to 3:30 PM

MHSOAC: 1325 J Street, Suite 1700, Sacramento, CA 95814
Call-in Number: 866-817-6533; Participant Code: 1189021

TIME	TOPIC	Agenda Item
10:00 AM	**Welcome and Introductions** *Khatera Tamplen, Chair* *L.E. Becker, JD, Committee Member* Welcome, introductions and review of agenda.	**1**
10:30 AM	**Overview of the AB 1315 (EPI Plus)** *Maggie Merritt, Executive Director, Steinberg Institute, Committee Member* The Committee will be provided with an overview of Assembly Bill 1315 (Mullin), which created the Early Psychosis Intervention Plus (EPI Plus) program, fund, and Advisory Committee. • Public Comment	**2**
10:45 AM	**The Challenge: Where are we Now?** *Brandon Staglin, President, One Mind* The committee will be provided with insight into key challenges and what will be required to increase access to appropriate interventions for people with early psychosis. • Public Comment	**3**
11:15 AM	**The Opportunity: Potential Impact on California's Approach to Early Intervention** *Tom Insel, M.D., Committee Member* The Committee with be provided with information and opportunities to create an early detection and intervention framework for early psychosis and mood disorders. • Public Comment	**4**

Public Notice: All meeting times are approximate and subject to change. Pursuant to the Americans with Disabilities Act, individuals who, because of a disability, need special assistance to attend or participate in any Mental Health Services Oversight and Accountability Commission Meeting may request assistance at the Commission offices, 1325 J Street, Suite 1700, Sacramento, CA 95814, by calling 916-445-8696, or by emailing the MHSOAC at mhsoac@mhsoac.ca.gov. Requests should be made one week in advance whenever possible. To accommodate people with chemical sensitivity, please do not wear heavily scented products to MHSOAC meetings.

11:45 AM	**Psychosocial Model for Early Intervention** *Yana Jacobs, LMFT, Committee Member* The Committee will be provided with an overview of psychosocial models in response to early episode psychosis. • Public Comment	**5**
12:00 PM	**Current Efforts: The Early Psychosis Learning Collaborative** *Toby Ewing, Ph.D., Executive Director* *Tara Niendam, Ph.D., Executive Director, UC Davis Early Psychosis Programs* The Committee with be provided with an overview of the recently created Early Psychosis Learning Collaborative, funded through the Mental Health Services Act and approved by the Commission. • Public Comment	**6**
12:30 PM	**Lunch Break** On your own.	
1:30 PM	**Facilitated Discussion on Committee Goals and Vision for 2019-2020** *Toby Ewing, Ph.D., Executive Director* A facilitated discussion will occur regarding the role of the AB 1315 Advisory Committee and the goals and vision for the 2019-2020 committee workplan. • Public Comment	**7**
2:45 PM	**Discussion of Next Steps and Future Meeting Dates** *Khatera Tamplen, Chair*	**8**
3:15 PM	**Public Comment**	**9**
3:30 PM	**Adjourn**	

AB 1315 Advisory Committee Members

Position:	Member:
Chair of the AB 1315 Advisory Committee	**Chair Khatera Tamplen**
	Executive Director Toby Ewing
	Commissioner Gladys Mitchell
	Commissioner Itai Danovitch
CBHDA President or his or her designee	**Karen Larsen, LMFT** (Yolo County BHD)
County BH Director of a county that administers an EPI Plus program	**Toni Tullys, MPA** (Santa Clara County BHD)
Representative from a non-profit community MH organization	**Adriana Furuzawa, LMFT, CPRP**
Psychiatrist or Psychologist	**Kate Hardy, Psy.D**
Representative from the Behavioral Health Centers of Excellence Davis or from similar entity within the UC system	**Paula Wadell, M.D.**
Representative from a health plan in the Medi-Cal managed care program	**Stuart Buttlaire, Ph.D., MBA**
Representative from the medical technologies industry	**Thomas Insel, M.D.**
Representative knowledgeable in EBP as they pertain to the operation of an EPI Plus-type program	**Yana Jacobs, LMFT**
A Parent or Guardian caring for a young child with a mental illness	No applications received
At-large representative identified by the Chair	**Maggie Merritt**
Representative who is a person with lived experience of a mental illness	**L.E. Becker, J.D.**
Primary care provider from a licensed primary care clinic that provides integrated primary and behavioral health care	**Gilmore Chung, M.D.**

Advisory Committee Member Biographies

L.E. Becker, JD

L.E Becker is an attorney. She has worked in corporate defense, intellectual property, and family law. She received her Bachelor's degree in Psychology from UC San Diego in 2010 where she was a Cognitive Development Research Intern. She received her Juris Doctor degree from Western State University in 2015. During law school, she volunteered for a non-profit organization helping clients receive disability benefits. Ms. Becker has Bipolar Disorder type 1.

Stuart Buttlaire, PhD, MBA

Dr. Buttlaire has over 30 years of clinical and management experience providing leadership and direction in health care delivery in both the public and private sectors. Currently, at Kaiser Permanente he designs and oversees a broad continuum of services and programs for both inpatient, ambulatory, and emergency settings for mental health and addiction medicine. He is the lead Mental Health Representative within Kaiser Permanente's State Program Initiatives including Medicaid and Medicare and is the designated Regional Director of Resource Management for Behavioral Health. Prior to joining Kaiser Permanente, Dr. Buttlaire was Program Manager of Acute Services, for Marin County Mental Health in Marin County, California. Dr. Buttlaire currently serves as a board member of the California Hospital Association Behavioral Health Board and serves on the American Hospital Associations Regional Policy Board for the Western Section. Dr. Buttlaire is a regional leader in the development of Best Practices at Kaiser Permanente. He has developed and led major program redesigns including Integrated Urgent Services for adults and youths with mental health and substance use disorders, Kaiser Permanente Post-Acute Center (SNF) Behavioral Health Program, mental health/emergency room consultation and suicide prevention, multi-family groups for adults and teens in the treatment of severe psychiatric conditions, and intensive outpatient treatment programs for adults and youths. He recently led the development of a new Inpatient Psychiatric Hospital and Crisis Stabilization Unit at Kaiser Permanente Santa Clara Medical Center. Dr. Buttlaire fills the seat of Representative from a Health Plan in the Medi-Cal Managed Care Program.

Gilmore Chung, MD

Dr. Chung received his MD from the University of Kentucky, and completed his residency in Internal Medicine - Pediatrics at Los Angeles County - University of Southern California Medical Center. He stayed at LAC-USC as an attending, and then spent a year at the Dimock Center in Roxbury, MA, doing outpatient medicine, started working in addiction medicine, as well as working in their inpatient detox facility. He has been at Venice Family Clinic since 2015, where he is the primary Medication Assisted Treatment physician, serves as the site director for the Rose Avenue clinic, which has a large population of patients that deal with homelessness, psychiatric illness, and substance use disorders. He works with Clare/Matrix as an expert facilitator in the Hub/Spoke system. He plans to sit the boards for the American Society of Addiction Medicine this fall. He also volunteers at Homeboy Industries, the UCLA chapter of Flying Samaritans, Physicians for Human Rights, and works for the LAPD jail dispensary clinics.

Adriana Furuzawa, MA, LMFT, CPRP

Ms. Furuzawa is the Early Psychosis Division Director at Felton Institute in San Francisco, CA, and provides executive oversight of operations and development of Felton Early Psychosis (formerly PREP – Prevention and Recovery in Early Psychosis), BEAM, and BEAM UP programs in six counties in northern and central California. She joined the Felton Institute in 2013, bringing 20 years of experience providing services to individuals struggling with persistent mental health distress in community mental health settings in California and in her native Brazil. Adriana has over 10 years of leadership experience in not-for-profit community-based organizations, providing clinical services, implementing evidence-based practices with fidelity to respective models, and promoting integration of recovery-oriented practices, and has been directly engaged in early psychosis program implementation and service delivery since 2013. Some key accomplishments include the sustainable implementation of coordinated specialty care services in urban and predominantly rural counties, and she has presented in numerous national, state, and local conferences on evidence-based practices for early psychosis care. She is a Licensed Family and Marriage Therapist by the California Board of the Behavioral Sciences and a Certified Psychiatric Rehabilitation Practitioner by the US Psychiatric Rehabilitation Association.

Kate Hardy, ClinPsychD

Dr. Hardy is a Clinical Associate Professor at Stanford University and California Licensed Psychologist who has specialized in working with individuals with psychosis for over 15 years in research, service development and clinical settings. Dr. Hardy received her doctorate in clinical psychology from the University of Liverpool, United Kingdom and completed her post-doctoral fellowship at UCSF. She is the Co-Director of the Stanford Department of Psychiatry and Behavioral Sciences INSPIRE Early Psychosis clinic and co-leads the national Psychosis-Risk and Early Psychosis Program Network (PEPPNET). She provides psychosocial interventions for individuals with psychosis, and their families, and is a nationally renowned trainer in CBT for psychosis and early psychosis models of care.

Thomas R. lnsel, MD

Dr. Insel is a psychiatrist and neuroscientist, is a co-founder and President of Mindstrong Health. From 2002-2015, Dr. Insel served as Director of the National Institute of Mental Health (NIMH), the component of the National Institutes of Health (NIH) committed to research on mental disorders. Prior to serving as NIMH Director, Dr. Insel was Professor of Psychiatry at Emory University where he was founding director of the Center for Behavioral Neuroscience in Atlanta. Most recently (2015 – 2017), he led the Mental Health Team at Verily (formerly Google Life Sciences) in South San Francisco, CA.
Dr. Insel is a member of the National Academy of Medicine and has received numerous national and international awards including honorary degrees in the U.S. and Europe.

Yana Jacobs, LMFT

Ms. Jacobs is the Program Officer at the Foundation for Excellence in Mental Health Care since 2014, www.mentalhealthexcellence.org a Non-Profit community foundation with a mission to bring transformative recovery based research and programs into the mainstream public and private sectors. She began her work at Soteria House as a staff member in the mid-70s, mentored by Loren Mosher, MD. Soteria House became her experience that informed her work as she moved into other areas of employment within the mental health world. Yana spent over 30 years working both in private practice as a family therapist and in the public sector at Santa Cruz County Behavioral Health. She has worked with their crisis team and later became the Chief of Adult Outpatient/Recovery services. As an

ally to people with lived experience she implemented the first Peer-Run Respite House in California, funded by a federally funded SAMHSA Transformation grant. Yana believes we must work both as an activist on the outside and with our allies on the inside if we are going to bring about real change. She teaches about "Being with" people who are in extreme states, based on her work and life experience at Soteria House.

Karen Larsen, LMFT

Ms. Larsen is the Director of Yolo County's Health and Human Services Agency (HHSA) and has been serving the underserved of Yolo County and surrounding areas for more than two decades. As a woman in recovery herself, she strives to provide a voice for those we serve in all she does. She spent over 15 years working for community clinics as a licensed marriage and family therapist (LMFT) and began her career providing care for those struggling with substance use disorders. Her passion for integrating care was one of the driving forces that brought Karen to Yolo County. She joined the County as the Mental Health Director and Alcohol & Drug Administrator in March 2014, just as the Agency was beginning to integrate the Departments of Public Health, Employment and Social Services, and Alcohol, Drug and Mental Health. As an integrated agency, Yolo County HHSA has the privilege of providing whole-person and whole-community care through branches that aim to ensure health, safety, and economic stability. With the objective of improving outcomes for the most vulnerable populations, Karen is active in local and statewide groups engaging in cross-system collaboration to address all determinants of health. She serves on the Board of Directors for the California Welfare Directors Association and California Behavioral Health Directors Association, co-chairing Children's and Criminal Justice Committees.

Maggie Merritt

Executive Director Maggie Merritt has worked in the public policy arena since 1989. She brings a rich blend of nonprofit, public policy and political campaign experience to her role as leader of the Steinberg Institute. Before helping launch the Steinberg Institute in January 2015, Maggie worked for years as a leader and advocate for nonprofit organizations focused on women's and children's health, violence prevention, and social justice issues. From 2005-2010, she served as executive director of the American Congress of Obstetricians and Gynecologists, District IX (CA), working to advance public policies to benefit the health and well-being of women and their children. In 2004, Maggie worked alongside then-Assemblyman Darrell Steinberg on the successful Yes on Proposition 63 campaign that enacted the Mental Health Services Act, a 1 percent tax on personal income over $1 million to bolster funding for mental health services across California. Maggie serves as a powerful voice for brain health issues in her advisory capacity to a number of key statewide commissions. She sits on two committees helping inform the California Future Health Workforce Commission, is a member of the statewide and Sacramento's "No Place Like Home" committees overseeing the rollout of $2 billion for permanent supportive housing for homeless people living with a serious mental illness. From 1989 to 2001, Maggie served as a legislative staffer in the California Senate and Assembly, focusing primarily on education and health policy. She holds a degree in sociology, law & society from the University of California, Davis, and is an ICF Professional Certified Coach. She has two married sons and four adorable grandsons and can be found on her yoga mat or frolicking in nature whenever she gets a chance.

Toni Tullys, MPA

Toni Tullys is the Behavioral Health Services Director in the County of Santa Clara Health System. In her role since December 2014, Ms. Tullys leads a newly integrated department, providing mental health, substance use and prevention services and serving more than 36,000 individuals annually. Ms. Tullys oversees a broad continuum of care provided by County staff and contract providers. Under her leadership, the Department is implementing the first headspace/allcove model in California as an MHSA Innovations project and testing the development of contracts with commercial plans for these services. Ms. Tullys and her staff are launching the SAMHSA grant for Youth and Young Adult Clinical High Risk for Psychosis, expanding services for 0-5, TAY and LGBTQ clients, consumers and families, and working with the Pew-MacArthur Results First Initiative in adult mental health services. She also serves as the co-lead of the County's Pay for Success Project: Partners in Wellness, designed to reduce consumer utilization of emergency psychiatric and inpatient services and to pilot a performance-based contract and is an enthusiastic partner with First 5 and NAMI. She earned her BS at California State University East Bay and her Master's in Public Administration at the University of Southern California, where she received the Women in Leadership Award.

Paula Wadell, MD

Paula Wadell, MD is an associate clinical professor of psychiatry at UC Davis where she serves as the medical director for the UC Davis early psychosis programs and is an executive committee member for the UC Davis Behavioral Health Center of Excellence. She is board certified in general and child and adolescent psychiatry. Her interests include medical education, early intervention treatment and improving systems of care through quality improvement and advocacy.

Assembly Bill No. 1315

CHAPTER 414

An act to add Part 3.4 (commencing with Section 5835) to Division 5 of the Welfare and Institutions Code, relating to mental health.

[Approved by Governor October 2, 2017. Filed with Secretary of State October 2, 2017.]

LEGISLATIVE COUNSEL'S DIGEST

AB 1315, Mullin. Mental health: early psychosis and mood disorder detection and intervention.

Existing law, the Mental Health Services Act, an initiative measure enacted by the voters as Proposition 63 at the November 2, 2004, statewide general election, establishes the Mental Health Services Oversight and Accountability Commission to oversee various mental health programs funded by the act. Proposition 63 requires the State Department of Health Care Services, in coordination with counties, to establish a program designed to prevent mental illnesses from becoming severe and disabling.

This bill would establish an advisory committee to the commission for purposes of creating an early psychosis and mood disorder detection and intervention competitive selection process to, among other things, expand the provision of high-quality, evidence-based early psychosis and mood disorder detection and intervention services in this state by providing funding to the counties for this purpose. The bill would require a county that receives an award of funds to contribute local funds, as specified.

This bill would prescribe the membership of the advisory committee, including the chair of the commission, or his or her designee. The committee would, among other duties, provide advice and guidance on approaches to early psychosis and mood disorder detection and intervention programs.

This bill also would establish the Early Psychosis and Mood Disorder Detection and Intervention Fund within the State Treasury and would provide that moneys in the fund shall be available, upon appropriation by the Legislature, to the commission for the purposes of the bill. The fund would consist of private donations and federal, state, and private grants. The bill would authorize the commission to elect not to make awards if available funds are insufficient for that purpose. The bill would authorize the advisory committee to coordinate and recommend an allocation of funding to the commission for clinical research studies, as specified. The bill would require the results of those studies to be made available annually to the public. The bill would also state that funds shall not be appropriated from the General Fund for the purposes of the bill and that implementation of the grant program shall be contingent upon the deposit into the fund of at least

$500,000 in nonstate funds for the purpose of funding grants and administrative costs for the commission.

The people of the State of California do enact as follows:

SECTION 1. The Legislature finds and declares all of the following:

(a) Fifty percent of all mental illness begins by the age of 14 and 75 percent by the age of 24, yet young people are often afraid to reach out for help.

(b) Psychotic symptoms, such as hallucinations, delusions, unusual or disorganized behaviors or speech, and negative actions, such as social withdrawal, usually emerge during late adolescence or early adulthood and derail important developmental milestones, such as developing relationships, completing school, or entering the workforce.

(c) Approximately 100,000 adolescents and young adults in the United States experience first episode psychosis each year.

(d) Untreated psychosis increases a person's risk for suicide, involuntary emergency care, and poor clinical outcomes, and may initiate a trajectory of accumulating disability into later adulthood.

(e) The average delay in receiving appropriate diagnosis and treatment for psychotic disorders is 18.5 months following the onset of psychotic symptoms.

(f) In the United States, people diagnosed with psychotic and mood disorders, such as bipolar disorder, major depression, and schizophrenia, die an average of 11 years earlier than the general population.

(g) Changing the paradigm from reactive to proactive early detection and treatment has demonstrated efficacy and cost benefit as recognized by the National Institute of Mental Health, the federal Centers for Medicare and Medicaid Services, and the federal Substance Abuse and Mental Health Services Administration, along with documented outcomes from other states, such as New York.

(h) According to numerous documented reports, including analyses and research conducted by the federal Substance Abuse and Mental Health Services Administration, and the National Institute of Mental Health, evidence-based strategies have emerged to identify, diagnose, and treat the needs of individuals with early serious mental illness, including psychotic symptoms and disorders.

(i) Clinical research conducted worldwide, and within California and the United States, supports a variety of evidence-based interventions for ameliorating psychotic symptoms and promoting functional recovery-oriented treatment, including cognitive and behavioral psychotherapy, low doses of atypical antipsychotic medications, family education and support, educational and vocational rehabilitation, and coordinated care approaches to case management.

(j) Empowering patients and families with innovative social media and mental health information feedback access that harnesses advances in

technology can provide a valued and unique opportunity to assist individuals with mental health needs and to optimize care.

(k) Early psychosis detection and intervention happens within the community and at schools, primary care providers, churches, and other social institutions that have established relationships with adolescents and young adults.

(*l*) When it comes to mental health care, California must move from stage four crisis care to stage one early detection, intervention, and prevention, just as we approach treatment for other serious illnesses.

(m) Creating public/private partnerships dedicated to expansion of evidence-based prevention and early intervention services would generate additional revenue that would enhance the ability for counties throughout California to create and fund those programs.

SEC. 2. Part 3.4 (commencing with Section 5835) is added to Division 5 of the Welfare and Institutions Code, to read:

PART 3.4. EARLY PSYCHOSIS INTERVENTION PLUS (EPI PLUS) PROGRAM

5835. (a) This part shall be known, and may be cited, as the Early Psychosis Intervention Plus (EPI Plus) Program to encompass early psychosis and mood disorder detection and intervention.

(b) As used in this part, the following definitions shall apply:

(1) "Commission" means the Mental Health Services Oversight and Accountability Commission established pursuant to Section 5845.

(2) "Early psychosis and mood disorder detection and intervention" refers to a program that utilizes evidence-based approaches and services to identify and support clinical and functional recovery of individuals by reducing the severity of first, or early, episode psychotic symptoms, other early markers of serious mental illness, such as mood disorders, keeping individuals in school or at work, and putting them on a path to better health and wellness. This may include, but is not limited to, all of the following:

(A) Focused outreach to at-risk and in-need populations as applicable.

(B) Recovery-oriented psychotherapy, including cognitive behavioral therapy focusing on cooccurring disorders.

(C) Family psychoeducation and support.

(D) Supported education and employment.

(E) Pharmacotherapy and primary care coordination.

(F) Use of innovative technology for mental health information feedback access that can provide a valued and unique opportunity to assist individuals with mental health needs and to optimize care.

(G) Case management.

(3) "County" includes a city receiving funds pursuant to Section 5701.5.

5835.1. (a) The Early Psychosis and Mood Disorder Detection and Intervention Fund is hereby created within the State Treasury. The moneys in the fund shall be available, upon appropriation by the Legislature, to the

commission for the purposes of this part. The commission may use no more than five hundred thousand dollars ($500,000) of the amount deposited annually into the fund for administrative expenses in implementing this part, including providing technical assistance.

(b) There may be paid into the fund all of the following:

(1) Any private donation or grant.

(2) Any other federal or state grant.

(3) Any interest that accrues on amounts in the fund and any moneys previously allocated from the fund that are subsequently returned to the fund.

(c) Moneys shall be allocated from the fund by the commission for the purposes of this part.

(d) Distributions from the fund shall be supplemental to any other amounts otherwise provided to county behavioral health departments for any purpose and shall only be used to fund early psychosis and mood disorder detection and intervention programs.

(e) The commission may elect not to make awards if available funds are insufficient.

(f) Funds shall not be appropriated from the General Fund for the purposes of this part.

5835.2. (a) There is hereby established an advisory committee to the commission. The Mental Health Services Oversight and Accountability Commission shall accept nominations and applications to the committee, and the chair of the Mental Health Services Oversight and Accountability Commission shall appoint members to the committee, unless otherwise specified. Membership on the committee shall be as follows:

(1) The chair of the Mental Health Services Oversight and Accountability Commission, or his or her designee, who shall serve as the chair of the committee.

(2) The president of the County Behavioral Health Directors Association of California, or his or her designee.

(3) The director of a county behavioral health department that administers an early psychosis and mood disorder detection and intervention-type program in his or her county.

(4) A representative from a nonprofit community mental health organization that focuses on service delivery to transition-aged youth and young adults.

(5) A psychiatrist or psychologist.

(6) A representative from the Behavioral Health Center of Excellence at the University of California, Davis, or a representative from a similar entity with expertise from within the University of California system.

(7) A representative from a health plan participating in the Medi-Cal managed care program and the employer-based health care market.

(8) A representative from the medical technologies industry who is knowledgeable in advances in technology related to the use of innovative social media and mental health information feedback access.

(9) A representative knowledgeable in evidence-based practices as they pertain to the operations of an early psychosis and mood disorder detection and intervention-type program, including knowledge of other states' experiences.

(10) A representative who is a parent or guardian caring for a young child with a mental illness.

(11) An at-large representative identified by the chair.

(12) A representative who is a person with lived experience of a mental illness.

(13) A primary care provider from a licensed primary care clinic that provides integrated primary and behavioral health care.

(b) The advisory committee shall be convened by the chair and shall, at a minimum, do all of the following:

(1) Provide advice and guidance broadly on approaches to early psychosis and mood disorder detection and intervention programs from an evidence-based perspective.

(2) Review and make recommendations on the commission's guidelines or any regulations in the development, design, selection of awards pursuant to this part, and the implementation or oversight of the early psychosis and mood disorder detection and intervention competitive selection process established pursuant to this part.

(3) Assist and advise the commission in the overall evaluation of the early psychosis and mood disorder detection and intervention competitive selection process.

(4) Provide advice and guidance as requested and directed by the chair.

(5) Recommend a core set of standardized clinical and outcome measures that the funded programs would be required to collect, subject to future revision. A free data sharing portal shall be available to all participating programs.

(6) Inform the funded programs about the potential to participate in clinical research studies.

5835.3. (a) It is the intent of the Legislature to authorize the commission to administer a competitive selection process as provided in this part to create new, and to expand and improve the fidelity of existing, service capacity for early psychosis and mood disorder detection and intervention services in California.

(b) The core objectives of this competitive selection process include, but are not limited to, all of the following:

(1) Expanding the provision of high-quality, evidence-based early psychosis and mood disorder detection and intervention services within California.

(2) Improving access to effective services for transition-aged youth and young adults at high risk for, or experiencing, psychotic symptoms, including the prodromal phase, or psychotic disorders.

(3) More comprehensively and effectively measuring programmatic effectiveness and enrolled client outcomes of programs receiving awards in the competitive selection process.

(4) Improving the client experience in accessing services and in working toward recovery and wellness.

(5) Increasing participation in school attendance, social interactions, physical health, personal bonding relationships, and active rehabilitation, including employment and daily living function development for clients.

(6) Reducing unnecessary hospitalizations and inpatient days by appropriately utilizing community-based services and improving access to timely assistance to early psychosis and mood disorder detection and intervention services.

(7) Expanding the use of innovative technologies for mental health information feedback access that can provide a valued and unique opportunity to optimize care for the target population. This may include technologies for treatment and symptom monitoring.

(8) Providing local communities with increased financial resources to leverage additional public and private funding sources to achieve improved networks of care for the target population, including transition-aged youth and young adults.

(9) Improving whole-person care by increasing access to, and coordination of, mental health and medical care services.

(c) Funds allocated by the commission shall be made available to selected counties, or counties acting jointly, through a competitive selection process, or to other entities for research, evaluation, technical assistance, and other related purposes.

(d) (1) Notwithstanding any other law, a county, or counties acting jointly, that receive an award of funds shall be required to provide a contribution of local funds.

(2) Upon approval of the commission, after consultation with the Department of Finance and the State Department of Health Care Services, other locally acquired funding, such as federal grants or allocations, or other special funds, may also be recognized for the purpose of contributing toward any contribution requirements.

(e) Awards made by the commission shall be used to create, or expand existing capacity for, early psychosis and mood disorder detection and intervention services and supports. The commission shall ensure that awards result in cost-effective and evidence-based services that comprehensively address identified needs of the target population, including transition-aged youth and young adults, in counties and regions selected for funding. The commission shall also take into account at least the following criteria and factors when selecting recipients of awards and determining the amount of awards:

(1) A description of need, including, at a minimum, a comprehensive description of the early psychosis and mood disorder detection and intervention services and supports to be established or expanded, community need, target population to be served, linkage with other public systems of health and mental health care, linkage with schools and community social services, and related assistance as applicable, and a description of the request for funding.

(2) A description of all programmatic components, including outreach and clinical aspects, of the local early psychosis and mood disorder detection and intervention services and supports.

(3) A description of any contractual relationships with contracting providers as applicable, including any memorandum of understanding between project partners.

(4) A description of local funds, including the total amounts, that would be contributed toward the services and supports as required by the commission through the competitive selection process, implementing guidelines, and regulations.

(5) The project timeline.

(6) The ability of the awardee to effectively and efficiently implement or expand an evidence-based program as referenced in this part.

(7) A description of core data collection and the framework for evaluating outcomes, including improved access to services and supports and a cost-benefit analysis of the project.

(8) A description of the sustainability of program services and supports in future years.

(f) The commission shall determine any minimum or maximum awards, and shall take into consideration the level of need, the population to be served, and related criteria as described in subdivision (e) and in any guidance or regulations, and shall reflect the reasonable costs of providing the services and supports.

(g) Funds awarded by the commission may be used to supplement, but not supplant, existing financial and resource commitments of the county or counties acting jointly, that receive the award.

(h) The commission may consult with a technical assistance entity, as described in paragraph (5) of subdivision (a) of Section 4061, initiate an interagency agreement with another public entity, including the University of California system, or contract for necessary technical assistance to implement this part.

(i) The advisory committee may coordinate and recommend an allocation of funding to the commission for clinical research studies. The committee may recommend an amount not to exceed 10 percent of the total amount deposited in the Early Psychosis and Mood Disorder Detection and Intervention Fund for clinical research studies. The advisory committee may recommend, in conjunction with the principal investigators, the data elements to be included in clinical research studies funded pursuant to this subdivision. The results of the clinical research studies shall be made available annually to the members of the public, including stakeholders and Members of the Legislature. The results of clinical research studies shall be deidentified in accordance with the federal Health Insurance Portability and Accountability Act (HIPAA) (Public Law 104-191), including Section 164.514 of Title 45 of the Code of Federal Regulations, and shall not contain any personally identifiable information according to the Information Practices Act of 1977 (Chapter 1 (commencing with Section 1798) of Title 1.8 of Part 4 of Division 3 of the Civil Code).

(j) The county and all award recipients shall comply with all applicable state and federal privacy laws that govern medical information, including, but not limited to, HIPAA and its implementing regulations, the Confidentiality of Medical Information Act (Part 2.6 (commencing with Section 56) of Division 1 of the Civil Code), the Information Practices Act of 1977 (Chapter 1 (commencing with Section 1798) of Title 1.8 of Part 4 of Division 3 of the Civil Code), and Section 10850.

5835.4. Notwithstanding the rulemaking provisions of the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code), the commission may implement this part without taking regulatory action until regulations are adopted. The commission shall adopt regulations implementing this part on or before January 1, 2019.

5835.5. Implementation of the grant program established pursuant to Section 5835.3 and the adoption of regulations pursuant to Section 5835.4 shall be contingent upon the deposit into the fund established pursuant to Section 5835.1 of at least five hundred thousand dollars ($500,000) in nonstate funds for the purpose of funding grants and administrative costs for the commission pursuant to this part.

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AMENDED IN ASSEMBLY MARCH 28, 2019

CALIFORNIA LEGISLATURE—2019–20 REGULAR SESSION

ASSEMBLY BILL No. 713

Introduced by Assembly Member Mullin

February 19, 2019

An act to amend ~~Section~~ *Sections 5835.1 and* 5835.5 of the Welfare and Institutions Code, relating to mental health.

LEGISLATIVE COUNSEL'S DIGEST

AB 713, as amended, Mullin. Early Psychosis Intervention Plus (EPI Plus) Program.

Existing law, the Mental Health Services Act, an initiative measure enacted by the voters as Proposition 63 at the November 2, 2004, statewide general election, establishes the Mental Health Services Oversight and Accountability Commission to oversee various mental health programs funded by the act. Existing law establishes the Early Psychosis and Mood Disorder Detection and Intervention Fund, and authorizes the commission to allocate moneys from that fund to provide grants through a competitive selection process to counties or other entities to create, or expand existing capacity for, early psychosis and mood disorder detection and intervention services and supports. Existing law requires the commission to adopt regulations to implement these provisions, but provide that the adoption of those regulations and the implementation of the grant program are contingent upon the deposit into the fund of at least $500,000 in nonstate funds for those purposes. *Existing law prohibits funds from being appropriated from the General Fund for purposes of these provisions.*

This bill would delete *that prohibition on General Fund moneys being appropriated for purposes of those provisions and would delete* the requirement that the minimum $500,000 deposit be from nonstate funds.

Vote: majority. Appropriation: no. Fiscal committee: ~~no~~ *yes*. State-mandated local program: no.

The people of the State of California do enact as follows:

SECTION 1. Section 5835.1 of the Welfare and Institutions Code is amended to read:

5835.1. (a) The Early Psychosis and Mood Disorder Detection and Intervention Fund is hereby created within the State Treasury. The moneys in the fund shall be available, upon appropriation by the Legislature, to the commission for the purposes of this part. The commission may use no more than five hundred thousand dollars ($500,000) of the amount deposited annually into the fund for administrative expenses in implementing this part, including providing technical assistance.

(b) There may be paid into the fund all of the following:

(1) Any private donation or grant.

(2) Any other federal or state grant.

(3) Any interest that accrues on amounts in the fund and any moneys previously allocated from the fund that are subsequently returned to the fund.

(c) Moneys shall be allocated from the fund by the commission for the purposes of this part.

(d) Distributions from the fund shall be supplemental to any other amounts otherwise provided to county behavioral health departments for any purpose and shall only be used to fund early psychosis and mood disorder detection and intervention programs.

(e) The commission may elect not to make awards if available funds are insufficient.

~~(f) Funds shall not be appropriated from the General Fund for the purposes of this part.~~

~~SECTION 1.~~

SEC. 2. Section 5835.5 of the Welfare and Institutions Code is amended to read:

5835.5. Implementation of the grant program established pursuant to Section 5835.3 and the adoption of regulations pursuant to Section 5835.4 shall be contingent upon the deposit into the

fund established pursuant to Section 5835.1 of at least five hundred thousand dollars ($500,000) for the purpose of funding grants and administrative costs for the commission pursuant to this part.

O

Mental Health Services
Oversight & Accountability Commission

Early Psychosis Intervention Plus (EPI Plus) Program

Brief Overview

Introduction

On October 2, 2017, the Governor signed Assembly Bill 1315 (Mullin, Chapter 414, Statutes of 2017), establishing the Early Psychosis Intervention Plus (EPI Plus) Program, creating the Early Psychosis and Mood Disorder Detection and Intervention Fund (Fund) within the State Treasury, and directing the Mental Health Services Oversight and Accountability Commission (Commission) to implement the program. The Fund will be utilized to support county-level early psychosis and mood disorder detection and intervention programs for adolescents and young adults. Additionally, AB 1315 directs the Commission to establish an advisory committee to create a competitive selection process to provide funding for these programs.

The EPI Plus Program is intended to improve the lives of Californians with mental health needs before those needs escalate and become severe or disabling.

Commission roles and Responsibilities

AB 1315 directs the Commission to establish an advisory committee to:

1. Provide advice and guidance to the Commission on approaches to early psychosis and mood disorder detection and intervention.
2. Create a competitive selection process and make grant recommendations to expand the state's capacity to provide high quality and evidence-based practices for early detection and intervention of psychosis and mood disorders.
3. Provide advice and guidance on clinical research studies and clinical trials.
4. Inform the funded programs about the potential to participate in clinical research studies.
5. Make recommendations regarding the issuing of regulations in support of the EPI Plus Program.
6. Recommend a core set of standardized outcome measures to be collected from grantees.

Advisory Committee Membership

Applications to fill the 13-seat on the Advisory Committee were made available to the public in the third quarter of 2018..

The committee is established in statute and includes the following members:

- The Chair of the Commission or his or her designee.
- The president of the County Behavioral Health Director's Association, or his or her designee.
- The director of a county behavioral health department that administers an early psychosis and mood disorder detection and intervention-type program in his or her county.
- A representative from a non-profit community mental health organization.
- A psychiatrist or psychologist

- A representative from the Behavioral Health Center of Excellence at the University of California (UC), Davis, or a representative from a similar entity with expertise from within the UC system.
- A representative from a health plan participating in the Medi-Cal managed care program.
- A representative from the medical technologies industry.
- A representative knowledgeable in evidence-based practices as they pertain to the operation of an EPI Plus-type program.
- A representative who is a parent or guardian caring for a young child with mental illness.
- An at-large representative identified by the chair.
- A representative who is a person with lived experience of a mental illness.
- A primary care provider from a licensed primary care clinic that provides integrated primary and behavioral health care.

Funding

Funding for the EPI Plus program will be drawn from public and private sources, including donations and grants, but shall not be appropriated from the General Fund. Implementation of the program is contingent upon a deposit into the fund of at least $500,000 in non-state dollars and includes provisions allowing the Commission to use up to $500,000 from that fund to cover the cost of implementing and administering the program. Recently introduced AB 713 (Mullin, Chapter 414) would modify the law to allow the use of General Funds to support the program.

Subject to funding availability, EPI plus funds would be made available for research, evaluation, technical assistance, and other related purposes, and include the creation of a competitive selection process to fund programs aimed at early psychosis and mood disorder detection and intervention services for transition age youth and young adults who are at risk of or are experiencing symptoms of early psychosis or mood disorders.

Early Psychosis Intervention Plus (EPI Plus) Program

Assembly Bill 1315 Fact Sheet

The Bill

- Established the Early Psychosis Intervention Plus (EPI Plus) Program
  - May include but not limited to:
    - Focused outreach to at risk individuals,
    - Recovery-oriented therapies,
    - Family psychoeducation and support
- Created the Early Psychosis and Mood Disorder Detection and Intervention Fund (Fund) within the State Treasury
  - Fund will be utilized to support county-level early psychosis and mood disorder detection and intervention programs for adolescents and young adults.
- Directed the Commission to implement the program
  - Contingent upon the deposit into the fund of at least $500,000 in non-state funds and allows the commission to use up to $500,000 for administrative purposes

Stats

- 100k — Adolescents and young adults expierience first episode psychosis each year
- 50% — Of all mental illnesses begin by the age of 14
- 75 % — Of all mental illnesses begin by the age of 24
- 18.5 — Months- average legnth of time between symptom onset and getting treatment

The Fund

Up to 10% can be used for clinical research studies

Used to create a competitive grant process to fund EPI Plus programs

Drawn from public/private sources and requires a match from county

Implementation contingent upon the deposit into the fund of at leas $500,000 in non-state funds

Committee Roles and Responsibilities

- **Provide advice and guidance to the Commission**
- **Create a competitive selection process**
- **Inform the funded programs**
- **Make recommendations**

13 Committee Seats

1. The Chair of the Commission or his or her designee.
2. The president of the County Behavioral Health Director's Association, or his or her designee.
3. The director of a county behavioral health department that administers an early psychosis and mood disorder detection and intervention-type program in his or her county.
4. A representative from a non-profit community mental health organization.
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6. A representative from the Behavioral Health Center of Excellence at the University of California (UC), Davis, or a representative from a similar entity with expertise from within the UC system.
7. A representative from a health plan participating in the Medi-Cal managed care program.
8. A representative from the medical technologies industry.
9. A representative knowledgeable in evidence-based practices as they pertain to the operation of an EPI Plus-type program.
10. A representative who is a parent or guardian caring for a young child with mental illness.
11. An at-large representative identified by the chair.
12. A representative who is a person with lived experience of a mental illness.
13. A primary care provider from a licensed primary care clinic that provides integrated primary and behavioral health care.

The Goal

Establish a framework and strategy to support efforts to shift emphasis in California's mental health system away from stage four crisis care and response, to stage one early detection and intervention.

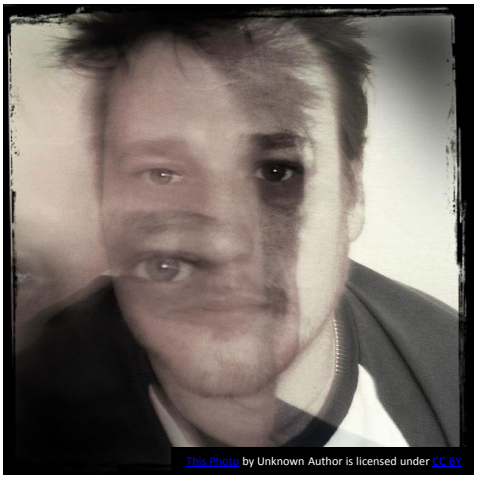
Improving Care Access for Early Psychosis: Challenges and Opportunities

Brandon Staglin, M.S., President, One Mind
EPI-Plus Council Meeting
The California Mental Health Services Oversight and Accountability Commission
June 14, 2019

PSYCHOSIS THREATENS LIFE

EARLY TREATMENT EMPOWERS HEALING

THE PSYCHOSIS CRISIS— LET'S FIX THIS



Only 8% of youth with early psychosis can access gold-standard care

Only 22% of individuals with schizophrenia recover

100,000 U.S. youth develop psychosis each year

Schizophrenia costs the U.S. $156 billion annually

COORDINATED SPECIALTY CARE (CSC): A NEW GOLD STANDARD

- Validated, team-based care for early psychosis
  - Psychotherapy
  - Family-based therapy
  - Medication
  - Supported education and employment
  - Case management
  - Outreach

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COMPREHENSIVE EARLY CARE WORKS:
RESULTS OF THE RAISE STUDY

- Coordinated Specialty Care (CSC) reduced symptoms 1.5x faster than standard community care (CC)
- CSC improved quality of life 2x faster than CC
- CSC accelerated involvement in work and school
- CSC cost $7,245 for every QALY added

Sources: Kane J., et al, 2015. Rosenheck, R. et al, 2016.

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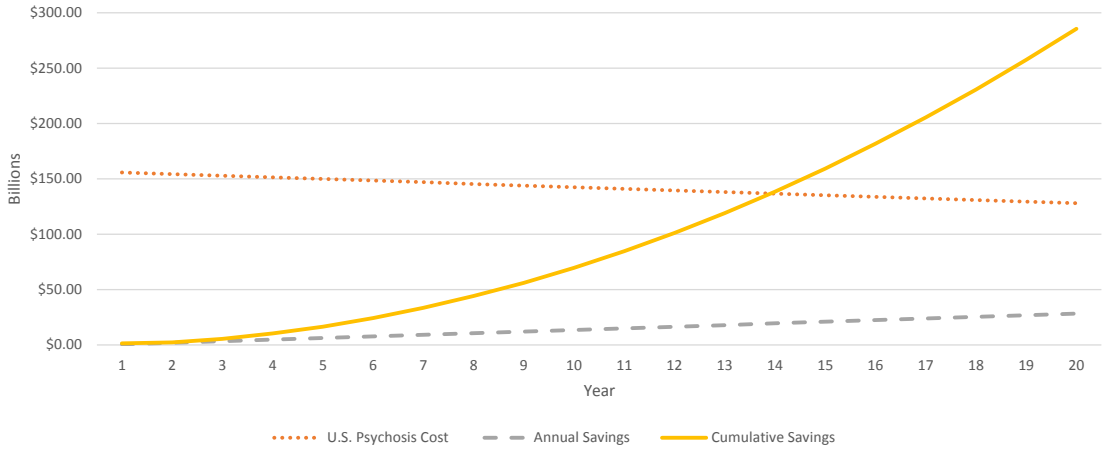
EST. U.S. PSYCHOSIS COST SAVINGS WITH CSC EXPANSION



7

CHALLENGES TO CSC DELIVERY

TOO FEW CSC PROGRAMS

UNDERDEVELOPED PAYMENT SYSTEMS

LACK OF COMMUNITY AWARENESS

STIGMA

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~250 CSC PROGRAMS: NOT ENOUGH

Source: Strong365.org

30 CALIFORNIA CSC PROGRAMS

30 Active Programs in 24 Counties

- Alameda
- Contra Cosa
- El Dorado
- Fresno
- Imperial
- Lake
- Los Angeles
- Madera
- Merced
- Monterey
- Napa
- Orange
- Sacramento
- San Diego
- San Francisco
- San Joaquin
- San Luis Obispo
- San Mateo
- Santa Barbara
- Santa Clara
- Shasta
- Solano
- Stanislaus
- Ventura

12 Programs In Development

- Inyo
- Lassen
- Marin
- Mariposa
- Riverside
- Santa Cruz
- Sierra
- Sonoma
- Tehama
- Trinity
- Tuolumne
- Yolo

Source: Niendam, T., 2017

PAYMENT SYSTEMS ARE UNDERDEVELOPED

Private insurance does not cover CSC adequately	• Many programs do not accept private insurance
Medicaid (Medi-Cal) only reimburses for parts of CSC	• Covers meds, family therapy, psychotherapy • Does not cover supported education and employment, outreach, or case management

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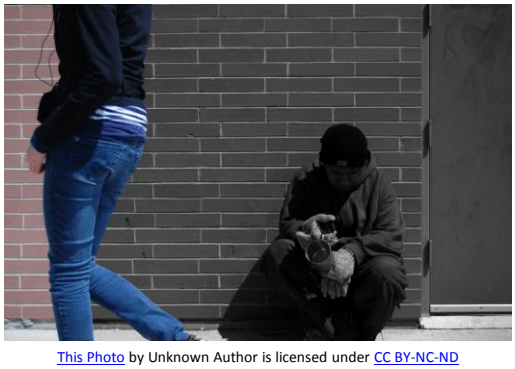
LACK OF AWARENESS AND ACCEPTANCE



- Too few individuals afflicted and families understand psychosis and treatment
- Too few community providers are aware of CSC
- Stigma obstructs learning and help-seeking

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OPPORTUNITIES TO EXPAND AND IMPROVE CSC DELIVERY

REDUCING STIGMA: UPCOMING MEDIA CAMPAIGN

PHILANTHROPIC PARTNERSHIPS: ONE MIND'S ASPIRe PROGRAM

AB 1315: EPI-PLUS

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MEDIA CAMPAIGN: BRAIN HEALTH / MENTAL HEALTH PROJECT

A Major Television Event on PBS
on more than 350 Stations and over 150 U.S. Markets
3 Films over 10 years with international distribution

Episode 1: Ken Burns, Executive Producer

The Youth Mental Health Crisis

A Groundbreaking Multi-Media Initiative

Expansive Outreach, Public Awareness, Media Campaign, Screenings, Panels, Celebrity Ambassadors, Events, Streaming Episodes Targeting Youth Audience, Educational Curriculum, Mentorships, Community Engagement & Grants, Viral Interviews

WETA

FLORENTINE FILMS

ewers bros PRODUCTIONS

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The Numbers Behind The Crisis

PREVALENCE

- **80%** of chronic mental disorders begin in childhood
- **1 IN 5** children in the U.S. **EXPERIENCE** a mental disorder every year
- **17.1 million** young people will be affected by mental illness before age **18**
- **50%** of students ages **14** and older with mental illness receive treatment

SUICIDE

- Second leading cause of death for young people ages **10 to 24**
- Leading cause of death for girls ages **15 to 19**
- **90%** of children and adolescents who commit suicide have a mental illness
- **20%** of students in grades **8 to 12** have seriously considered suicide

DRUGS & ALCOHOL

- **90%** of people addicted to nicotine, alcohol or drugs began using these substances before age **18**
- **15%** of high school seniors report non-medical use of prescription medications in a given year
- **11%** of all alcohol consumption in the U.S. is by youth aged **12 to 20**
- **3** teenagers die every day from opioid overdose

CYBERBULLYING

- **1 in 5** teens experience cyberbullying
- **30%** of teens who have been cyberbullied have turned to self-harming behaviors
- **1 in 6** teens have cyberbullied others
- **10%** Attempt to take their own lives due to bullying

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Innovative Programs Provide Hope

OnTrackNY — My health. My choices. My future.

- Hospitalizations reduced by **50%**
- ER visits reduced by **80%**
- School and work participation increased by **100%**

UCLA Grand Challenges — Depression

- **10,000** incoming freshman Enrolled / **100,000** person longitudinal study
- Pre-screening, genetic sequencing
- Developing new methods to deal with depression

ONE MIND

- **Forbes 100** companies working across sectors and industries
- Transforming workplace productivity & engagement through brain fitness and mental health

NAPLS

- Collaboration among nine prestigious universities in North America
- Applying cutting-edge technology
- Identifying causes and treatments for pre-psychosis in youth

We will partner with comparable major organizations

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Media, Engagement, & Events

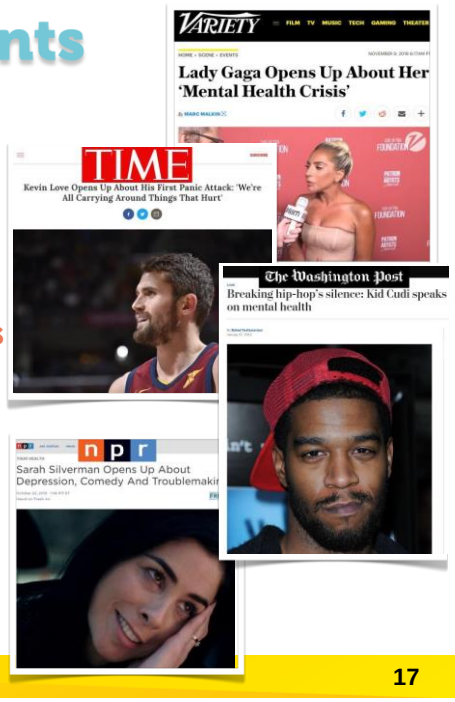
To address Brain Health / Mental Health at the community level one year before and one year after the premiere of the first documentary series, ambassadors from film, television, theatre, sports, music, publishing or media will participate in Hometown Events, Video Shorts & Interviews with Local PBS Stations, and digital platforms.

Hometown Events in key markets with PBS stations and community organizations

Select ambassadors, over 24 months, will to go to their hometown for an event produced and coordinated with local PBS station, community, and sponsors. Ambassador will award a charitable contribution or mentorship in Brain Health / Mental Health. Includes interviews and taped PSAs, accompanied by local and national press efforts.

Video Shorts & Interviews

Ambassadors will be engaged for film interviews with PBS Stations and on a digital platform, accompanied by press and social media efforts.

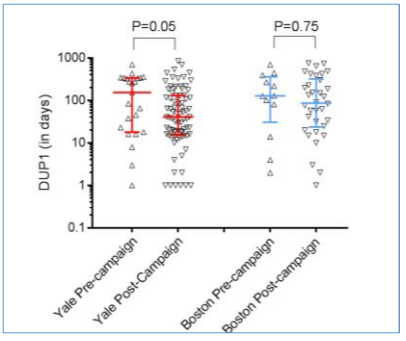


YALE AWARENESS CAMPAIGN REDUCES DUP

Distribution of Time to first APD (DUP1) by enrollment site*

Pre-Mindmap		**New Haven** (N=23)	**Boston** (N=12)
DUP1 (days)	Median (Q1-Q3)	**153** (17-339)	**127** (46.5-330.5)
Post-Mindmap launch		(N=81)	(N=34)
DUP1 (days)	Median (Q1-Q3)	**40** (15-130)	**86** (24-303)

* **2.5 yrs into 4 yr campaign**



Source: STEP-ED: Reducing Duration of Untreated Psychosis and its Impact in the U.S. (R01MH103831) Protocol: Srihari et al., BMC Psychiatry 2015.

ONE MIND'S ASPIRe PROGRAM:

APPLICATIONS FOR SERIOUS PSYCHIATRIC ILLNESS RECOVERY

Tara Niendam, PhD and Brandon Staglin, MS, speak to launch ASPIRe at One Mind's Music Festival for Brain Health, September 2018

Goal 1: Expand Access

- To **increase access** for youth with early SPI to gold-standard care to 75% by 2040

Goal 2: Enhance Recovery

- To **increase the recovery rate** from serious psychiatric illness to 75% by 2040

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ASPIRe OBJECTIVES

Accelerate the inclusion of CSC programs in the Learning Health Care Network (LHCN).

Expand the reach of CSC programs throughout the U.S.

Test and pilot innovations among the Network to boost care efficacy and scope.

Use data from the Network to advocate for $1 billion in annual government and/or insurance funding for CSC.

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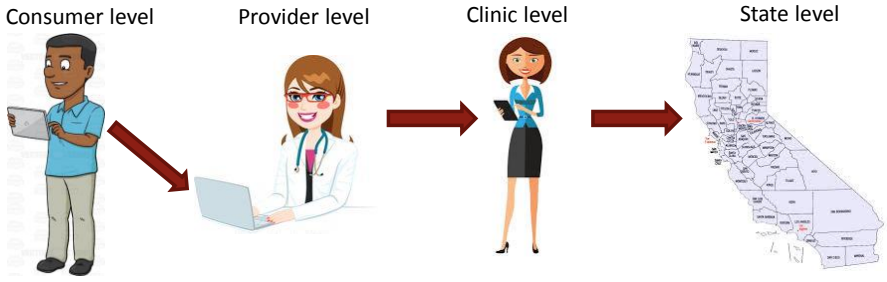
LEARNING HEALTH CARE NETWORK (LHCN) FOR CA CSC PROGRAMS



Consumer (and family) enter data on relevant survey tools (in threshold languages) in app-based platform at baseline and then regular follow up

Clinician and/or MD can visualize responses on web-based portal for the individual over the course of treatment and share that data with the consumer during session.

Program management can visualize summary of responses on portal for:
- All consumers in clinic
-In relation to other CA programs

Administrator level allows access to de-identified data across all clinics on the app for county- or state-level data analysis

Source: Niendam, T., UC Davis

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ASPIRE INNOVATIONS COMPONENTS: CURRENT & PENDING

Accelerating Medicines Partnership: Validating biomarkers for early diagnosis and treatment

NAPLS SIPS Project: Making early diagnosis more accessible

Strong 365: Online community and outreach campaign to connect EP youth to early care

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EPI-PLUS: A CALIFORNIA STATE / COUNTY FUNDING STREAM

Can serve to start CSC programs

Can help to expand programs

Can join programs into LHCN

Can support research

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EPI-PLUS FUNDING CAN ENABLE RESEARCH VIA THE LHCN

- Testing novel biomarkers & treatments via the AMP
- Testing innovative adjuncts to CSC
  - Peer specialists
  - Expressive arts therapies
  - Meaning-making therapies
  - Cognitive training
  - Nutritional/microbiome-based
  - Others?
- Strong 365 and other digital outreach
- Adapting CSC to treat non-psychotic illness

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THANK YOU

Learn more:

onemind.org

Contact me:

Brandon.Staglin@onemind.org

EPI-PLUS

EARLY INTERVENTION AND PREVENTION: A FRAMEWORK FOR CHANGE

Tom Insel, MD
Steinberg Institute
June 14, 2019

Disclosures

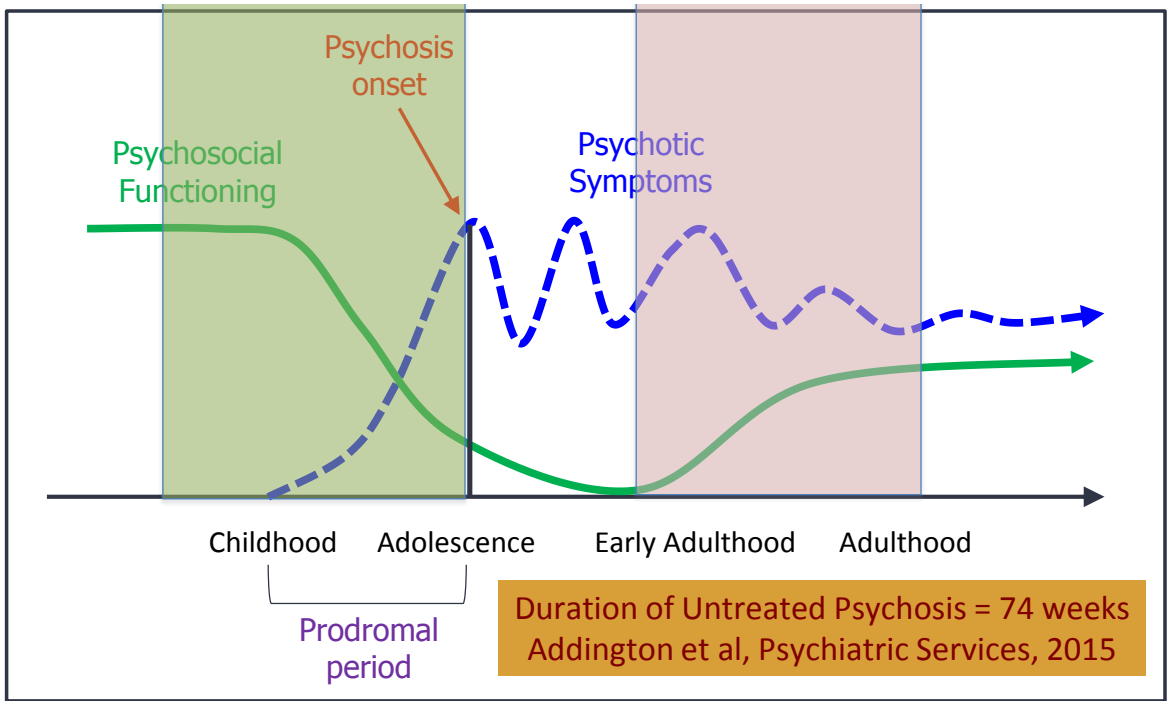
Equity in Alphabet, Apple, Compass Pathways, Mindstrong Health, and Sage Therapeutics

Board Service: Compass Pathways, Mindstrong Health, NeuraWell, Alto Health

Non-profit Board Service: Autism Science Foundation, Steinberg Institute

Lecture Outline

- Two decades of early intervention and prevention
- EPI Programs that have scaled
- Opportunities for California 2019 - 2024
- A vision for 2024



How Many Affected? California Estimates

Incidence of FEP: 86/100K ages 15 – 29 (Simon et al, Psych Serv 2017)

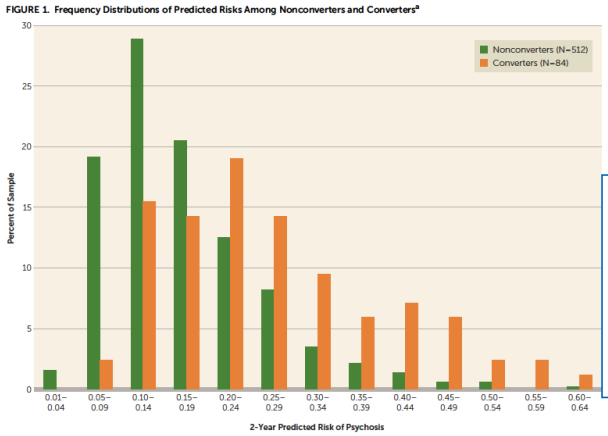
Population CA ages 15 - 29: approx. 10M

Estimated incidence in CA: 8600 cases/2020 (35K/4 years)

Based on MHRN data: 2500 in MH specialty care, 2500 in primary care w MH Dx, 688 in specialty inpt care, 2060 in ER MH care, 5160 (60%) with MH or SUD diagnosis (based on Simon et al, AJP, 2018)

An Individualized Risk Calculator for Research in Prodromal Psychosis

Tyrone D. Cannon, Ph.D., Changhong Yu, M.S., Jean Addington, Ph.D., Carrie E. Bearden, Ph.D., Kristin S. Cadenhead, M.D., Barbara A. Cornblatt, Ph.D., Robert Heinssen, Ph.D., Clark D. Jeffries, Ph.D., Daniel H. Mathalon, Ph.D., M.D., Thomas H. McGlashan, M.D., Diana O. Perkins, M.D., M.P.H., Larry J. Seidman, Ph.D., Ming T. Tsuang, M.D., Ph.D., Elaine F. Walker, Ph.D., Scott W. Woods, M.D., Michael W. Kattan, Ph.D.



"For individuals who screen positive on SIPS, prediction accuracy equivalent to cardiovascular or cancer risk calculators."

Positive predictors:
Thought content
Social withdrawal
Processing speed
Verbal learning
Younger age

Non- predictors:
Family hx
Trauma
Stressful life events

Contents lists available at ScienceDirect

Schizophrenia Research

journal homepage: www.elsevier.com/locate/schres

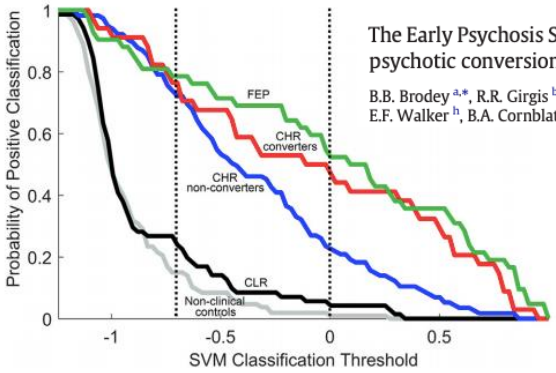


Fig. 2. Probability that an individual taken from either of the studied groups will be classified by the EPSI as belonging to Group C (FEP/converter) plotted as a function of the SVM classification threshold. By plotting a vertical line anywhere along the x axis, it is possible to assess the impact of changing the threshold on classifications within each sub-group and to model how the EPSI will do in diverse screening situations.

The Early Psychosis Screener for Internet (EPSI)-SR: Predicting 12 month psychotic conversion using machine learning

B.B. Brodey [a,*], R.R. Girgis [b], O.V. Favorov [c], C.E. Bearden [d], S.W. Woods [e], J. Addington [f], D.O. Perkins [g], E.F. Walker [h], B.A. Cornblatt [i], G. Brucato [b], S.E. Purcell [a], I.S. Brodey [j], K.S. Cadenhead [k]

What Precedes First Episode?

Prodrome or CHR – found in 25% of FEP

MHRN Data on 12 months preceding 624 FEP cases:

Depressive Disorder	38%
Anxiety Disorder	30%
ADHD	12%
Bipolar Disorder	11%
SUD	17%
Any MH/SUD Dx	60%

(Simon et al, AJP, 2018)

79% of CHR patients have co-morbid dx (Addington et al, Schiz Res, 2018)

HARMONY

An International Approach to Predictive Algorithms

NAPLS (Canon, Yale)
PRONIA (Kousouleris, Munich)
PSYSCAN (McGuire, IOP)
PNC (Gur, Penn

→ Common Data Elements
Shared Protocols
Replication Efforts

Trajectories of Risk and Resilience

CHR (Prodrome)

Mixed Mood/Anxiety

Substance Abuse

Other

FEP

Full Recovery

Partial Recovery

Chronic Disability

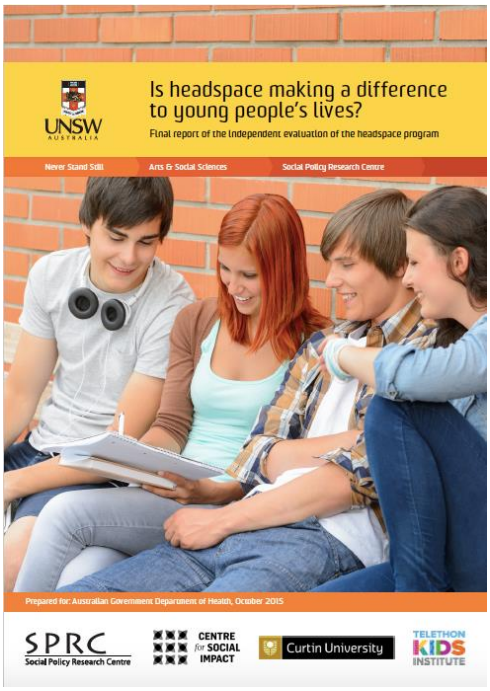
Early Mortality

Lessons from 20 years of Prodromal Research

- Significant symptoms during 3 years prior to diagnosis, yet high DUP
- > 50% in the care system, potential predictors of progression
- Many who develop FEP have good outcomes and many who do not develop FEP do not have good outcomes
- Medical interventions have not shown high efficacy for preventing FEP. Cognitive interventions show some promise. High school graduation predictive of better outcomes.

Lecture Outline

- Two decades of early intervention and prevention
- EPI Programs that have scaled
- Opportunities for California 2019 - 2024
- A vision for 2024



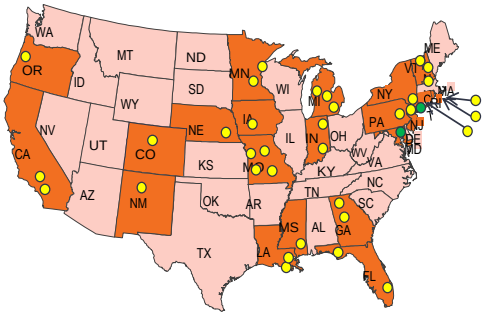
Australia

headspace: National Program for Youth

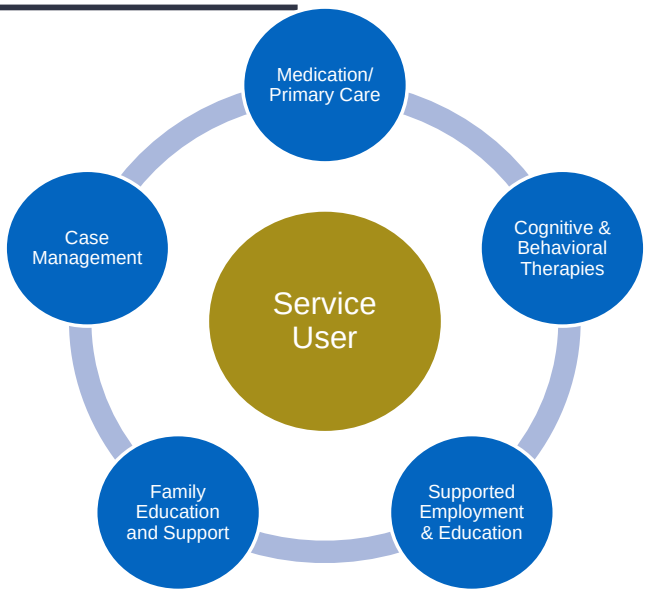
- 2013-2014: 67 centers provided service to 45K young people
- Non-medical approach to reduce stigma
- Engaged vulnerable populations
- Modest impact on clinical outcomes

US National Efforts

RAISE (CSC)



36 community sites
22 states
2 different models
469 participants



US National Efforts

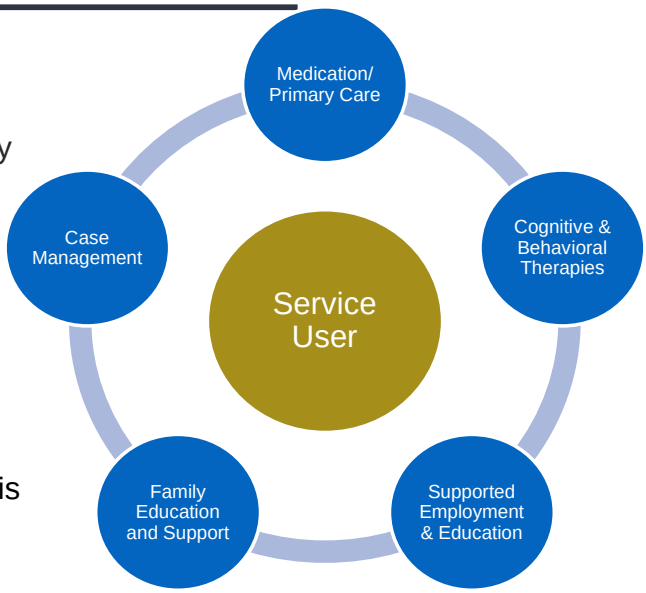
RAISE (CSC)

After 2 years, Coordinated Specialty Care was superior to usual community care on:

- Engagement in treatment
- Quality of life
- Symptomatic improvement
- Involvement in work or school
- Cost-effectiveness

CSC worked better for patients with a shorter duration of untreated psychosis

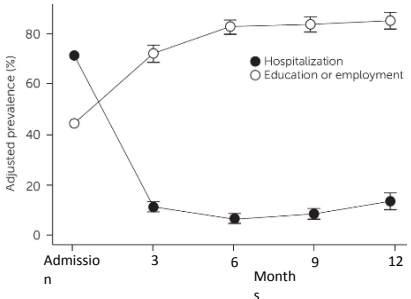
Kane et al., *Am J Psychiatry,* 2016;
Rosenheck et al., *Schiz Bull,* 2016



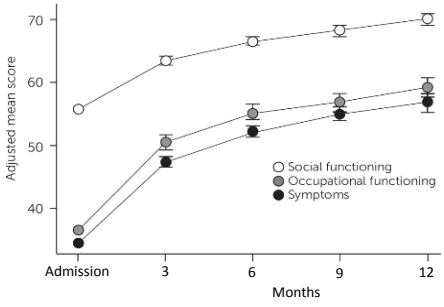
OnTrackNY – Statewide Program for FEP

- 325 individuals ages 16–30 were followed for up to one year
- Education and employment rates increased to 80% by six months; hospitalization rates decreased to 10% by three months
- Global functioning measures improved continuously over 1-year

School/Work and Hospitalization Rates



Global Functioning Measures

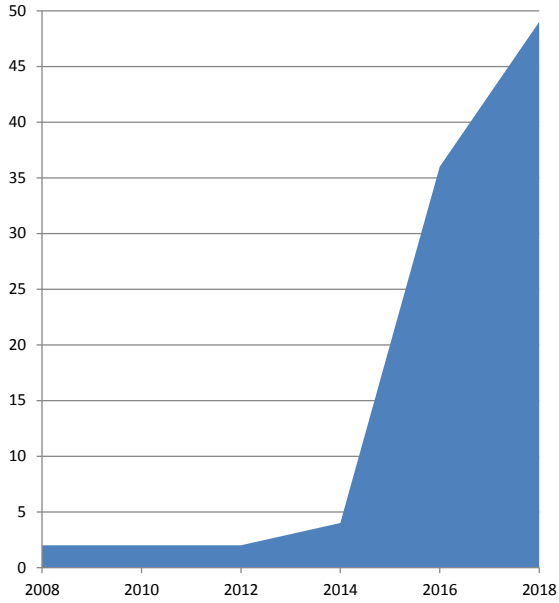


Nossel et al., *Psychiatric Services,* 2018

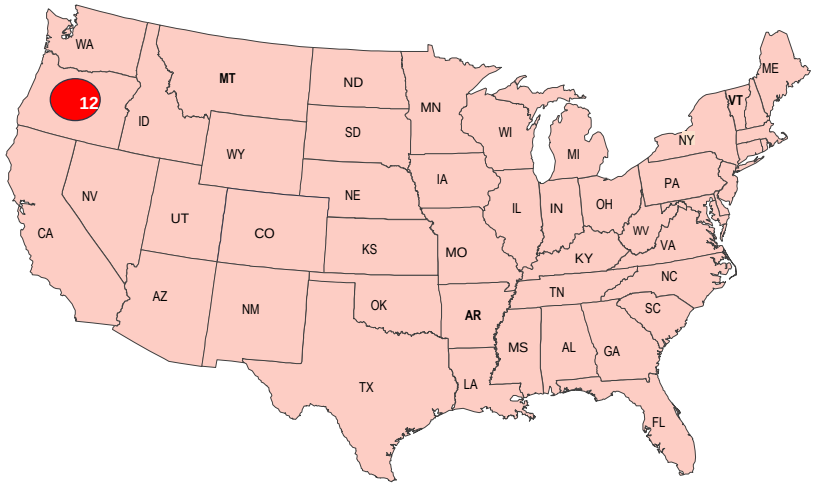
Dates and First Episode Psychosis (FEP) Milestones

Jul. 2009	NIMH clinical trials for FEP commence
Dec. 2013	NIMH implementation study completed
Jan. 2014	P.L. 113-76: $22.8M set-aside for FEP
Apr. 2014	NIMH/SAMHSA FEP guidance to states
May 2014	SAMHSA technical support to states begins
Dec. 2014	P.L. 113-483: $22.8M set-aside for FEP
Oct. 2015	NIMH clinical trials for FEP completed
Oct. 2015	CMS coverage of FEP intervention services
Dec. 2015	P.L. 114-113: $50.5M set-aside for FEP
Dec. 2016	P.L. 114-255: 21st Century Cures Act
May 2017	P.L. 115-31: $53.3M set-aside for FEP
Mar. 2018	P.L. 115-141: $68.5M set aside for FEP
Mar. 2019	P.L. 115-245: $68.5M set aside for FEP

Cumulative Number of States with Early Psychosis Intervention Plans

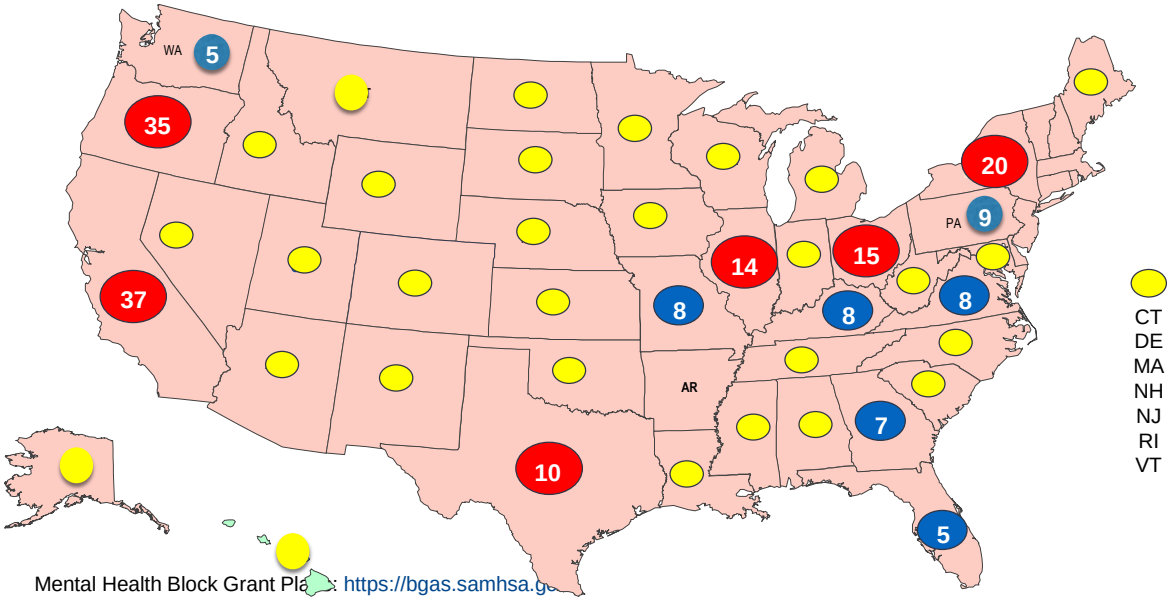


Early Intervention Clinics – August, 2008 – 12 Clinics



Mental Health Block Grant Plans: https://bgas.samhsa.gov/

Early Intervention Programs 8/18 – 265 Clinics



Mental Health Block Grant Pla : https://bgas.samhsa.g

Lessons from 10 years of Scaling EIP Programs

- Research experience translates to practice (!)
- Measurement matters
- Training matters
- Technology might help with measurement and training

Lecture Outline

- Two decades of early intervention and prevention
- EPI Programs that have scaled
- Opportunities for California 2019 - 2024
- A vision for 2024

What makes us unique?

- Diversity – majority minority state
- Abundance - $21B surplus
- Intellectual capital – UC system, Stanford, S.V.
- Comm Coll system – 2.1M students/114 campuses
- MHSA - >$2B with funds for PEI, innovation
- Leadership – Governor committed ($25M + AB1315)

What makes California a unique challenge?

- 56 different specialty mh programs
- Carve out for mh specialty care, SUD
- Fragmentation of health care from education
- Workforce not trained for CSC or other EIP effort
- Universities not touching much of the state
- Appetite for state-wide effort?

Lecture Outline

- Two decades of early intervention and prevention
- EPI Programs that have scaled
- Opportunities for California 2019 - 2024
- A vision for 2024

Our Challenge

- 32K young people will experience FEP by 2024
- >10X this number will benefit from early intervention for MH problem that will not evolve to FEP, but will contribute to morbidity and mortality
- We know populations at broad behavioral health risk (foster care, juvenile justice, identified K-12) and specific FEP risk
- How do we build an EIP program that is not limited to the health system?

Potential Measures of Success Early Intervention and Prevention

- DUP < 2 weeks
- 20% increase in hs graduation rate for youth w SED
- 30% reduction in hospitalization and incarceration for vulnerable populations
- 10% reduction in suicide for ages 15 - 29

Paths to Success

- Invest in what works – proactive not reactive
- Tie UC system to community colleges and K-12
- Workforce for task shifting
- Don’t be limited by brick and mortar

Thank You

tom@steinberginstitute.org

STEINBERG INSTITUTE

Treatment: Soteria House and Open Dialogue

Yana Jacobs, John R. Bola and Loren Mosher

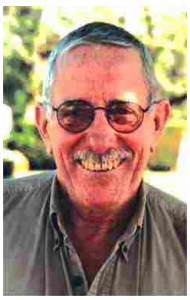
yana@femhc.org

Program Officer-Foundation for Excellence in Mental Health Care

www.mentalhealthexcellence.org

1

Treating Psychosis Without Drugs: Soteria Two-Year Outcomes



Bola, J. R., & Mosher, L. R. (2003). The treatment of acute psychosis without neuroleptics: Two-year outcomes from the Soteria project. *The Journal of Nervous and Mental Disease, 191*(4).

2

Soteria Study
Loren Mosher, M.D.

- Quasi-experimental Study
- 1st and 2nd episode acute psychosis (not substance induced)
- Schizophrenia and schizophreniform disorders (psychotic symptoms < 6m or >6 m)
- Non-dangerous
- Young (ages 15-29) & Unmarried
- NIMH Funded 1970s - 1980s N=179
- San Francisco Bay Area
- Follow-up to 2 years

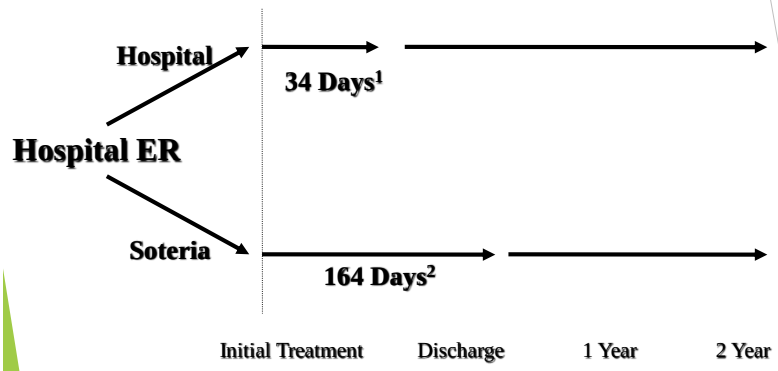
3

Soteria Treatment

- Residential Setting
- Safe, Supportive, Low-Stress Environment
- Paraprofessional Staff
- Phenomenological Approach ("Being With")
- Minimize Antipsychotic Medications (up to 45 days)

4

Timeline



1. 94% Continuous Anti-psychotic Drug Use
2. Minimal anti-psychotic drug Use Initial 45 Days (76% none)
3. Initial treatment was designed to be longer at Soteria. Than hospital stays.

5

Soteria 2-year Outcomes

- 20% higher probability of having no or few psychotic symptoms (p=0.03)
- One fewer readmission to 24 hour care (p=0.02)
- Overall +19% better outcomes (r=0.19, p=0.03)
- 43% not taking antipsychotics

6

Soteria and European Psychosocial Acute Treatment Programs

Comparison of 4 Treatment Models

1. Soteria (Loren Mosher)
2. Soteria Bern (Luc Ciompi)
3. Finnish Need Adapted (Lehtinen et al.)
4. Swedish Parachute (Johan Cullberg)

Bola, J. R., Lehtinen, K., Cullberg, J., & Ciompi, L. (2009). Psychosocial treatment, antipsychotic postponement, and low-dose medication strategies in first episode psychosis *Psychosis: Psychological, social and integrative approaches, 1*(1), 4-18.

7

Program Overview and Outcomes

Study	Design	Duration	Percent Medication-free (completers)	Percent Medication-free (intent-to-treat)	Effect Size "r"
Soteria	Quasi	2-years	43% (29/68)	35% (29/82)	0.19
Soteria-Bern	Case-control	2-years	43% (6/14)	43% (6/14)	0.09
Finnish Need-Adapted	Quasi	2-years	46% (31/67)	37% (31/84)	0.16
Swedish Parachute	Quasi	3-years	42% (25/59)	35% (25/71)	n.a.

Effect size "r" is interpreted as % advantage

8

Treatment Comparison I:

Study	Antipsychotic Postponement	Mobile Crisis Team	Therapeutic Milieu
Soteria San Francisco	4-6 weeks		Yes
Soteria Bern	3-4 weeks		Yes
Finnish Need-Adapted	3 weeks	Yes	Yes, or in home treatment
Swedish Parachute	1-2 weeks	Yes, through 5 years	Yes, in 10 of 17 units

9

Treatment Comparison II:

Study	Family Treatment	Social Network Development	Follow-up Period
Soteria San Francisco		Yes	
Soteria Bern	Yes, outpatient and psycho-education		2 Years
Finnish Need-Adapted	Yes, family home therapy meetings	Yes	Indefinite
Swedish Parachute	In and outpatient & psycho-education	Yes	5 years

10

Treatment Components

- Caring engaged psychosocial milieu
- Temporary postponement of antipsychotics (provided continued client improvement and non-dangerousness)
- Sleeping meds offered PRN
- Family engagement (systemic family therapy - Open dialogue)
- Social network development, employment support
- Community follow-up
- Peers with lived experience on staff?

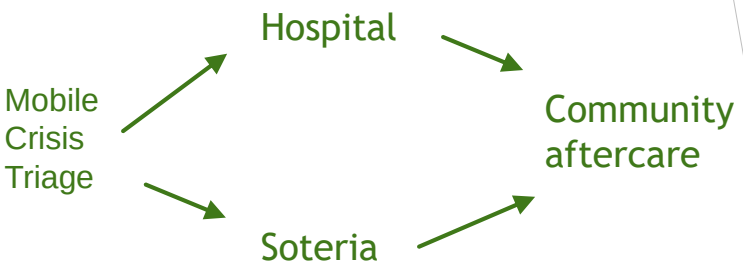
11

Antipsychotic Use Protocol

- Time-limited postponement (e.g., 2-6 weeks) under specified conditions:
- (a) positive symptoms begin to recede, and
- (b) client / patient / consumer remains cooperative and non-dangerous
- PRN use of sedatives / sleep-agents (e.g., benzodiazepines)
- Antipsychotic treatment begun or referral to hospitalization if:
- (a) psychosis exacerbates, or
- (b) postponement period expires.

12

Staff trained in Open Dialogue / Integrated Community Support



Comprehensive Community Outcomes Research

13

Treatment and Scientific Advantages

Treatment Advantages

1. Small-medium overall effect size advantage
2. Significantly reduced medication dependence

Scientific Advantages

3. Improved specificity of diagnosis (schizophrenia vs. schizophreniform) and treatment selection (re: medical model)
4. Reduced heterogeneity of schizophrenia

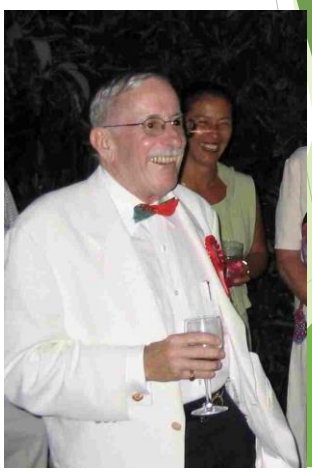
Who needs which treatment to recover?

14

ɛria approach Gives People a Chance to Recover without a lifetime on Psychiatric Medications/ Dependence

Loren Mosher, M.D.

- A lifetime of service to the mentally ill
- Commitment to best client-centered services



15

Statewide Learning Health Care Network and Evaluation of California's Early Psychosis Programs

Tara Niendam, Ph.D., UC Davis
Toby Ewing, Executive Director, MHSOAC

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1

California's Early Psychosis opportunities & challenges

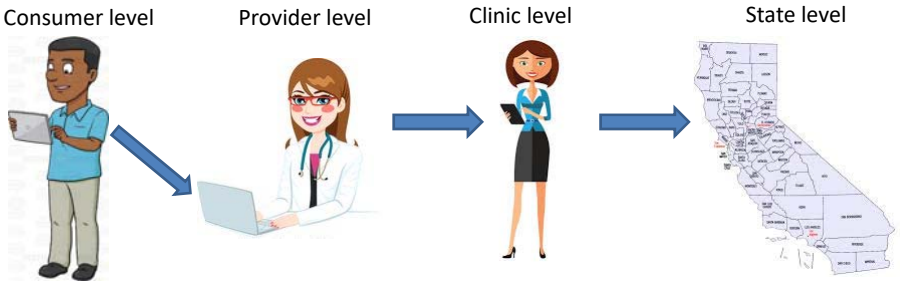
- Strengths = WIDE dissemination! 30 programs across 24 counties, serving diverse clients and families
- Challenges = No uniformity across state in implementation of EP services – treatment models differ county by county, and some counties do not have access
- No standard measurement of outcomes using valid and appropriate measures for EP populations
- Need to establish methods for implementing measurement-based care in community practice
- California EP programs are currently isolated from each other, and struggle to find training, resources or reduce staff turnover
- State and national initiatives are pushing for more collaboration and data sharing – and we need to respond.

2

County Collaborative Effort

3

Proposed Learning Healthcare Network for CA Mental Health programs

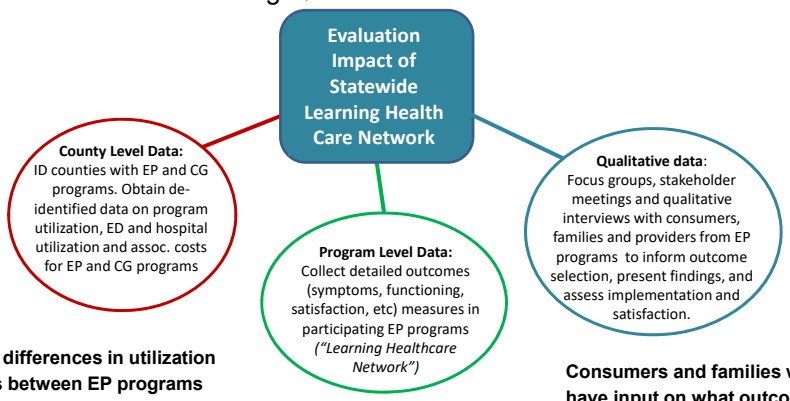


Consumer level	Provider level	Clinic level	State level
Consumer (and family) enter data on relevant survey tools (in threshold languages) in app-based platform at baseline and then regular follow up	Clinician and/or MD can visualize responses on web-based portal for the individual over the course of treatment and share that data with the consumer during session.	Program management can visualize summary of responses on portal for: - All consumers in clinic -In relation to other CA programs	Administrator level allows access to de-identified data across all clinics on the app for analysis for analysis for county- or state-level data analysis

4

Evaluating EP programs and Improving Care Outcomes

Learning Questions and Outcomes



Are there differences in utilization and costs between EP programs and standard care?

How does utilization and cost relate to consumer-level outcomes within EP programs?

Do California EP programs deliver high fidelity to evidence-based care?

What are the program components associated with consumer-level short-and long-term outcomes in particular domains?

Consumers and families will have input on what outcomes are selected via focus groups and surveys.

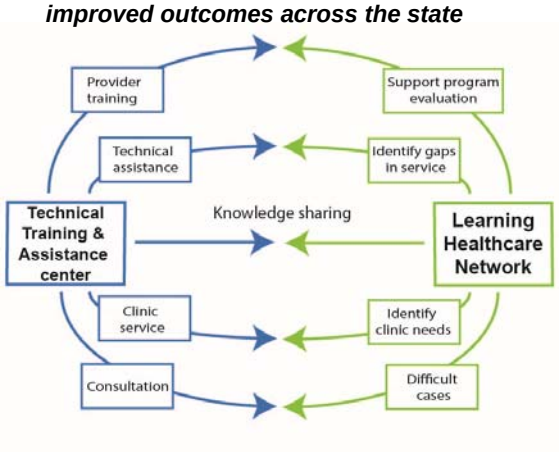
What are the barriers and facilitators to implementing a LHCN app?

5

Vision for California

LHCN will support development of the
EP Training & Technical Assistance Collaborative

GOAL: Make high-quality EP care available to all Californians, enabling improved outcomes across the state



6

Hopes and Challenges

- **Hopes**
  - Gather high-quality data to understand:
    - what's happening now in EP programs
    - what is promoting client recovery (and what isn't)
    - the needs and priorities of clients, families, communities
    - how data can influence collaborative care decisions in real time
  - Collaborative approach to engagement, respect unique needs of each county (e.g. brick-and-mortar clinic vs telehealth)
- **Challenges**
  - Need to build an infrastructure, hire expert staff, find space, develop sustainable funding model to create a central foundation that supports program development and sustainability
  - High staff turnover = need for ongoing training and support
  - Need incentives to motivate change, encourage counties to see this as a priority and invest for the long-term
  - Need to engage private sector
  - Need to focus on workforce development – how to engage training programs to increase baseline skill of workforce?

7

Next steps

- Engaging with counties around their goal to build EP program, join LHCN
  - Sonoma, Stanislaus, Modoc
  - 6 more counties have expressed interest
- Convened working group of trainers and leadership
- Developing training model that can work for a variety of counties

8


Questions?
LOS ANGELES COUNTY DEPARTMENT OF MENTAL HEALTH
hope. recovery. wellbeing.
LIVE WELL SAN DIEGO
oc health CARE AGENCY
WELLNESS • RECOVERY • RESILIENCE
ONE MIND
UCSF
University of California San Francisco
UC San Diego
UCDAVIS
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9

STAFF ANALYSIS— MULTI-COUNTY COLLABORATIVE

Innovation (INN) Project Name:
Early Psychosis Learning Health Care Network

Review History

COUNTY	Total INN Funding Requested	Duration of INN Project	County Submitted INN Project	30 day Public Comment	Approved by BOS
Los Angeles	$4,545,027	5 Years	10/12/18	08/14-09/12/18	06/06/18
Orange	$2,499,120	5 Years	10/12/18	06/20-07/20/18	01/2019
San Diego	$1,127,389	5 Years	10/12/18	09/11-10/11/18	11/13/18
Solano	$414,211	5 Years	10/12/18	06/28-07/27/18	09/11/18
Total	**$ 8,585,747**				

Collaborative Project Description

Introduction

Los Angeles, Orange, San Diego, and Solano Counties are seeking approval to use innovation funds to develop the infrastructure for a sustainable Learning Health Care Network (LHCN) for existing Early Psychosis (EP) programs in order to increase the quality of services and improve outcomes. The LHCN will utilize an application to gather real-time data from clients and their family members in existing EP clinic settings, and will also include training and technical assistance to EP program providers.

The Counties propose to contract with UC Davis Behavioral Health Center of Excellence (the Contractor) to lead the project with support from One Mind and partnerships with UC San Francisco, UC San Diego, and the University of Calgary.

The value of the project will be examined through a statewide evaluation that will assess the impact of the Learning Health Care Network on consumer- and program-level metrics, as well as utilization and cost rates of EP programs.

Identified Need

Psychosis is a term used to describe conditions that affect the mind where a person's thoughts and perceptions are disturbed and there is a loss of contact with reality (National

Institute of Mental Health, 2016). Key features that define the psychotic disorders are: delusions, hallucinations, disorganized thinking (speech), grossly disorganized or abnormal motor behavior, and negative symptoms (American Psychiatric Association, 2013).The National Institute of Mental Health presents the following facts about psychosis: about 100,000 adolescents and young adults in the US experience first episode psychosis each year; psychosis often begins when a person is in his or her late teens to mid-twenties; and psychosis affects people from all walks of life (2016). Unfortunately, those who do experience symptoms of psychosis often go untreated for more than a year (Addington, et al 2015).

The participating counties expressed that they would like to further improve outcomes for participants in EP programs while also reducing program costs. While 24 of the 59 counties in California have an EP program **there is lack of standardization and a lack of infrastructure to properly evaluate the fidelity to evidence based practice and the effectiveness of these programs, making it impossible to disseminate best practices across programs.** These demands for effective early psychosis intervention programs combined with legislation requiring EP programs, funding to operate EP programs, and the need to implement quality improvement initiatives, has led the Collaborative to develop this proposal to create the infrastructure for a sustainable Learning Health Care Network (LHCN) for EP.

Discussion

All counties and programs participating in this collaborative operate variations of the CSC model (a world- wide, evidence–based treatment and has been the subject of at least two recent research projects in the United States (Azrin, Goldstein, Heinssen, 2016)). **The LHCN seeks to create infrastructure in California to gather real-time data from clients and their family members in existing EP clinic settings that use CSC. Data will be collected through a developed application via questionnaire on tablets. The collection of data via application and subsequent aggregation will allow programs to learn from each other, and provide the infrastructure to position the state to participate in the development of a national network to inform and improve care for individuals with early psychosis across the US.**

The Collaborative proposal identified three primary areas of focus:

1. Provide infrastructure for an EP Learning Collaborative across counties, in which common challenges can be identified and “lessons learned” can be quickly disseminated, creating a network of programs that rapidly learn from and respond to the changing needs of their consumers and communities.
2. Training and technical assistance to support EP program providers to have immediate access to relevant client-level data and anonymized data that can be quickly shared with stakeholders, the county, or the state. Rapid dissemination of program outcomes has historically been a challenge for county-based programs.
3. Evaluation of the LHCN will provide information on how to incorporate measurement-based care into mental health services and demonstrate impact of the LHCN on the recipients and providers of EP care.

As a result of the project, Counties will be able to learn from each other and from leading experts in early psychosis treatment by using a common framework to improve process and report on outcomes. Currently, counties have no easy way to share data from early psychosis programs and this LHCN is one solution providing a starting point to address the lack of shared data systems.

The infrastructure created by this project will also allow California to participate in the development of a national Early Psychosis Intervention Network (EPINET) (led by the National Institute of Mental Health). Involvement in this national network requires the participating states to have established infrastructure for large scale data collection and reporting. Each of the four counties participating in this collaborative have agreed to participate in the national network and will implement a separate process for informed consent for participating clients.

In addition, development of this LHCN project is in line with Assembly Bill 1315 which includes a goal of "expand(ing) the provision of high-quality, evidence-based early psychosis and mood disorder detection and intervention services in this state" in addition to a goal of "creating public/private partnerships dedicated to expansion of evidence-based prevention and early intervention services would generate additional revenue that would enhance the ability for counties throughout California to create and fund those programs" (Assembly Bill 1315, 2017).

This proposal was informed by a previous contract between UC Davis Behavioral Health Center of Excellence and the MHSOAC where UC Davis proposed to conduct a statewide evaluation of Mental Health Service Act funded or other publicly funded EP programs in California. One outcome of the contract identified by UC Davis is a lack of standardization and lack of infrastructure to properly evaluate the fidelity and effectiveness of existing programs.

Additionally, the MHSOAC has supported the development of this proposal via a small contract with UC Davis to identify potential county partners.

Review of the extant literature indicates that the overview provided by the Collaborative to justify the need for this program is supported by current research, legislation and local need. Commission staff were unable to identify any other existing early psychosis related project that includes training and technical assistance to help providers utilize data in real time to improve consumer outcomes, nor is there an existing evaluation examining the impact of the LHCN on the Early Psychosis programs.

Learning and Evaluation

This project attempts to modify and implement a software application to accomplish, among other things, uniformity in how and what is collected by individual EP programs, using best practices and standardized tools. Within this network are four initial counties that will be participating. While some variation is expected at the county-level, the overall evaluation will utilize aggregate data collected from multiple sources across counties. **The Collaborative may wish to address how variance in county data will affect the evaluation and how it will be controlled.**

Though the overall evaluation of the collaborative project will involve a number of different individuals and entities, the project will mainly target individuals at increased risk or in the early stages of a psychotic disorder. It is important to note, however, that there may be variation in the intake criteria at the county program level (i.e. excluding individuals with comorbid diagnoses or individuals unable to commit to program duration). Over the course of the project, it is estimated that between 2,000-2,500 individuals will be served by existing programs.

This section summarizes the ways in which the Collaborative will evaluate the impact of the LHCN on the EP care network, as well as the effect of EP programs on consumer- and program-level outcomes. Under the guidance of the University of California, Davis, in partnership with UC San Francisco, UC San Diego, the University of Calgary, and One Mind, the evaluation for the LHCN collaborative project will take on three different approaches. These three approaches coalesce into a robust evaluation that meet the goals of the project, and include: the utility of the LHCN for early psychosis programs, fidelity of early psychosis programs within counties, as well as the impact that early psychosis programs have on costs and individual outcomes—each approach is summarized below.

(1) *Utility of the LHCN for early psychosis programs*: This will be accomplished by utilizing information gathered from two samples of consumers and providers prior to LHCN implementation. The first sample of consumers will complete questionnaires at year 1 (pre-implementation period). Questionnaires will gather information on knowledge of illness, Perceived Effect of Use for the LHCN, Treatment Satisfaction, Treatment Alliance, and Comfort with Technology. Providers will also complete a questionnaire on Treatment Alliance, Use of Data in Care Planning, Perceived Effect of Use for the LHCN, and Comfort with Technology. The second sample of consumers and providers will complete these same questionnaires post-implementation at year 4.

(2) *Fidelity of early psychosis programs*: Using the revised First Episode Psychosis Services Fidelity Scale (FEPS-FS), the Collaborative will assess each clinic's adherence to evidence-based practices for first-episode psychosis services. Scores from the FEPS-FS will provide insights into components of each EP program that are associated with outcomes.

(3) *Impact of early psychosis programs on costs and outcomes*: Using three different data sources—program-level data, qualitative data, and county-level data—the impact that EP programming has on individual consumer outcomes as well as related costs will be examined (**see pgs.12-16 of Collaborative plan**).

   a. Program-Level Data: upon consideration from stakeholder engagement discussions (**see qualitative data**), specific data elements will be selected and will stand as the foundation for the LHCN. Providers, consumers, and family members will identify measures of potential outcomes from the PhenX Early Psychosis Toolkit, the national Mental Health Block Grant, and others (**for specific measures and outcomes, see pgs. 13-15 of Collaborative plan**).

b. Qualitative Data: focus group interviews, and in-depth semi-structured interviews will be conducted with consumers, family members, and providers. With this method, feedback will be garnered at different stages of the project. This includes feedback relative to identifying appropriate measures for use in the project. Additionally, these methods will allow evaluators to assess the feasibility of the implementation strategy, and provide context to the interpretation of data analysis.
c. County-Level Data: consumer-level data relative to program service utilization, crisis/ED utilization, psychiatric hospitalization, and costs related to these utilization domains will be captured at the county-level.

These three evaluation approaches will be guided by several learning questions, including:

1. Do consumer and/or provider skills, beliefs and attitudes about technology or measurement-based care impact completion of LHCN outcome measures or use of data in care?
2. Does engagement in the LHCN impact consumer satisfaction with care, insight into treatment needs, and alliance with treatment team?
3. Are there differences in utilization and costs between EP programs and standard care?
4. How does utilization and cost relate to consumer-level outcomes within EP programs?
5. What are the EP program components associated with consumer-level short- and long-term outcomes in particular domains?
6. Within EP programs, what program components lead to more or less utilization (e.g. hospitalization)?
7. To what extent do California EP programs deliver high fidelity to evidence-based care, and is fidelity related to consumer-level outcomes?
8. What are the barriers and facilitators to implementing a LHCN app across EP services?
9. What are the consumer, family and provider experiences of submitting and utilizing data obtained through the LHCN during routine clinical care?
10. Does a technology-based LHCN increase use of consumer-level data in care planning relative to a program's prior practice?
11. Does use of consumer-level data increase consumer insight into treatment needs, promote alliance with the treatment team, or improve satisfaction with care?
12. What will be a viable strategy to implement a statewide LHCN for EP programs?

Data collection and analysis for the LHCN evaluation will take place in multiple stages throughout the 5-year project (**see pg. 19 of Collaborative plan**). UC Davis and partners will be responsible for data analysis and writing the final evaluation report.
Taken together, this evaluation plan is a strong approach that will provide counties with rich data to determine the impact of EP programming on consumer-level outcomes.

Additionally, with the use of process and fidelity data received, the evaluation will also support the development and strengthening of EP programs within counties and statewide, as well as cross-county collaboration. **While the findings from the evaluation may provide an extensive amount of beneficial information, the dissemination activities that will take place at the conclusion of the project are not established**. **The Collaborative may wish to discuss how evaluation findings and lessons learned will be shared and disseminated**.

The Commission may wish to discuss how this project, if successful, may lead to the creation of a technical assistance center or data-clearing house for Early Psychosis programs similar to the California Child Welfare Indicators Project (CCWIP). CCWIP is a collaborative between the University of California at Berkeley and the California Department of Social Services and provides direct access to customizable information on California's entire child welfare system (California Child Welfare).

Privacy and Data

Data Storage and Access

Stakeholders have raised concerns about privacy and the security of data collected by applications proposed in previous innovation projects. Numerous news articles also raise concerns about data breaches and how data can be used. The Collaborative asserts that there are two main levels of data review intended for this project.

The first level follows standard practice in each county with the individual participant consenting to treatment through the county intake process. Consumers and providers will have access to all PHI information typically available in a clinic setting. Program management will be able to see a summary of all consumers in the clinic and compare to the California average.

The next level of review is data that is shared between clinics and the Contractor, UC Davis. To protect privacy UC Davis asserts that, "any data that is shared with UC Davis will have all PHI…identifiers removed except for zip code. We will work to ensure that we have enough demographic information to do meaningful analysis, but avoid combinations of PHI that could identify the individual" (**see page 17 of full plan**). UC Davis goes on to explain that each County will assign a unique participant ID for each consumer that only the County and EP Program will be able to link the participant ID with a specific person. This level of access will allow the Contractor to access de-identified data across all clinics for analysis.

The program level data will be acquired from participants in each clinic setting on a software application and dashboard which will be modified specifically for the program and county needs. The Collaborative is contracting with Quorum to modify the previously developed platform named MOBI. The Contractor reports that they have previous experience in implementing this type of technology in the UC Davis Early Psychosis Programs and has found that health software applications are useful to both consumers and providers to assess and monitor consumer outcomes of interest. The Contractor further states that the software application and web-based dashboard will be developed

with all appropriate protections for consumer information according to the Health Insurance Portability and Accountability Act.

Shared data will be stored at UC Davis, UCSF and UCSD and only accessible by the Contractor and sub-contractors (the study investigators and primary research team).

The Collaborative provides limited information on the data security in place for the online data collection system and the MOBI platform. **The Commission may wish to ask the Collaborative to discuss protections in place for data that is uploaded and stored as well as who has access to the data stored online, and how data will be segregated between counties.**

Institutional Review Board (IRB)/Coordination of the IRB Process
The contractor, UC Davis, states that IRB preparation and submission will occur in the first half of year one with approval expected in the second half of the first year.

County Specific Regulatory Requirements

Cultural Competency and Community Planning Process
Los Angeles, Orange, San Diego, and Solano Counties each demonstrated that this project was reviewed and supported by their communities through a local community planning process. For example, Los Angeles County sought feedback on this project on two separate occasions from their stakeholder body, the System Leadership Team, with representatives from diverse communities and stakeholders throughout Los Angeles County. Solano County held multiple comprehensive community stakeholder processes that included input from a diverse representation of stakeholders including consumers, family members, mental health and physical health providers, law enforcement, community organizations, educational community, veterans, and representatives from the County's unserved/underserved Latino, Filipino and the LGBTQ communities.

Through a contract with the MHSOAC from July-November 2018, the Contractor, UC Davis, worked to engage stakeholders, including clients served by EP programs and their families, the leadership and clinical providers within EP programs, county and state leadership, as well as community organizations in the development of this proposal.

The Collaborative reports that the proposed project follows a policy of 'nothing about us without us', including community stakeholder involvement at all levels of the project.

They state that meaningful engagement helped to create this proposal including the structure of the LHCN, outcomes to be included, and the evaluation approach.

Of particular note, the qualitative component of the proposed project will continue stakeholder engagement throughout the 3-year proposed project. The Collaborative is relying on participating stakeholders to guide them on how to best serve the diverse communities of each EP program.

In addition, the Collaborative will form an Advisory Committee after reaching out to engage diverse communities to ensure representation includes underserved populations.

The Collaborative also states that a standing agenda item of both project leadership and Advisory Committee meetings will be to ensure that this project is culturally sensitive and responsive.
The Collaborative expects that an outcome of the collaborative learning meetings between participating programs will address challenges and best practices in providing culturally responsive services. The Commission may be interested in hearing more about the culturally adaptive approaches currently in practice in EP programs at the county level.

The Budget

COUNTY	Total INN Funding Requested	Local Costs for Admin and Personnel	Contractor/ Evaluation	% for Evaluation	Sustainability Plan (Y/N)	Funds Subject to Reversion (Y/N)
Los Angeles	$4,545,027	$1,575,310	$2,969,717	65.34%	Y	Y
Orange	$2,499,120	$1,573,525	$925,595	37.04%	Y	
San Diego	$1,127,389	$201,794	$925,595	82.10%	Y	
Solano	$414,211	$291,399	$122,812	29.65%	Y	Y

Total	**$8,585,747**	**$3,642,028**	**$4,943,719**	**58%**

Los Angeles, Orange, San Diego, Solano counties are collectively contributing $8,585,747 of innovation dollars to fund the Early Psychosis Learning Health Care Network for five years.

UC Davis will receive $4,943,719 (58%) to manage the project, hire consultants, sub-contractors and complete the evaluation. Each participating county is paying a percentage of the contract with UC Davis based on the county size.

Los Angeles, San Diego, and Solano counties are contracting directly with UC Davis while Orange County will utilize the Joint Powers Authority, California Mental Health Services Authority (CalMHSA) as its fiscal intermediary with UC Davis.

Both Los Angeles County and Orange County are contributing additional “in kind” personnel support to the project.

In addition to County contributions, One Mind awarded UC Davis a $1.5 million grant to support this project. UC Davis utilized the grant to provide the necessary support to extend from a three year project to a five year project.

Stakeholder Feedback

All county plans were shared with MHSOAC stakeholders on October 16, 2018 and no letters of support or opposition were received. However, the MHSOAC did receive an email expressing interest in participating in the evaluation.

The Collaborative included five letters of support received from: Mental Health America; a family member of a person who experienced psychosis; a UCLA project consultant; the CEO of the identified contractor, Quorum Technologies; and the President of One Mind (**see appendix V in the original plan**).

Sustainability Plan
All Counties have indicated that they will incorporate lessons learned into existing programs to improve services. The Contractor will identify opportunities to self-sustain the Learning Health Care Network as part of this project.

Additional Regulatory Requirements
Commission staff have verified that this project is in line with MHSA general standards (**see page 22 of full plan**), including meeting expectations for cultural competency and stakeholder involvement.

All individual counties seeking to join the Learning Health Care Network appear to have met the minimum regulatory requirements listed under MHSA Innovation regulations.

If the Collaborative Innovation Project is approved, the MHSOAC must receive the certification of approval from Orange County and San Diego County's Board of Supervisors before any Innovation Funds can be spent.

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Full project proposals can be accessed here:

http://mhsoac.ca.gov/document/2018-10/early-psychosis-learning-health-care-network-statewide-collaborative-november-2018

Proposal Brief: Early Psychosis Learning Health Care Network Statewide Collaborative

Project Overview

A prolonged first episode of psychosis (FEP) without adequate treatment is the most consistent predictor of poor clinical and functional outcomes (Marshall et al., 2005), poor health outcomes (Gates, Killackey, Phillips, & Alvarez-Jimenez, 2015) and significant economic burden (Penn, Waldheter, Perkins, Mueser, & Lieberman, 2005). Team-based "coordinated specialty care" (CSC) (Heinssen, Goldstein, & Azrin, 2014) for early psychosis (EP) has established effectiveness in promoting clinical and functional recovery (Kane et al., 2016). EP treatment programs have expanded rapidly with increased funding across the US without formal coordination of training or implementation. While EP programs share many features, the lack of state and national coordination and data infrastructure limits the capacity for large-scale evaluation or accelerated dissemination of best practices (Niendam et al., 2017). Based on prior collaborations with 30 California (CA) EP programs and experiences using mobile health (MOBI mHealth) technology to measure individual outcomes in EP care, the UC Davis (UCD) team is uniquely poised to create a CA Learning Healthcare Network (LHCN) that will contribute systematically collected outcomes data from individuals enrolled in CSC programs across 4 counties. Participating individuals will have experienced a first episode of psychotic illness (FEP) or be at clinical high risk for psychosis (CHR).

In order to address the inherent challenges of implementation of an evaluation of EP programs across California, in 2015 the Mental Health Services Oversight and Accountability Commission (MHSOAC) commissioned UC Davis to develop a method to conduct a statewide evaluation of these services. Further, between 3/13/2018 and 8/27/2018, 34 consultations with EP program and county management staff were held across 13 California Counties to develop a collaborative evaluation project. In total, 53 staff members contributed to these consultations. Following the consultation process, it was determined that the main goals of proposed project are to reduce the experience of isolation currently felt by California EP programs, address disparities across programs as a method to improve standards of care, collect data to better understand impact of specific components of the EP care model, and use the centralized data collection process to participate in nationwide efforts to improve EP care. A major development over the course of this consultation was to change the initial project period from the planned 3-year timeline to 5 years to allow for a longer project development and data collection period. Another major component of this consultation period was identifying possible funding mechanisms within the counties to contribute to the collaborative.

The current project builds upon the findings, collaborations, and partnerships established since 2015 to propose the development of a sustainable learning healthcare network (LHCN) for California. Four counties (Los Angeles, Orange, San Diego, Solano), in collaboration with the UC Davis Behavioral Health Center of Excellence and One Mind, are seeking approval from the MHSOAC to use Innovation Funds to develop the infrastructure for a sustainable LHCN for EP programs, the utility of which will be tested through a robust statewide evaluation. This project, led by UC Davis in partnership with UC San Francisco, UC San Diego, University of Calgary and a number of California counties, will bring consumer-level data to the clinician's fingertips, allow programs to learn from each other, and position the state to participate in the development of a national network to inform and improve care for individuals with early psychosis across the US. The evaluation would assess the impact of the LHCN on consumer- and program-level metrics, as well as utilization and cost rates of EP programs. This will allow counties to adjust their programs based on lessons learned through multiple research approaches. One Mind, a foundation focused on improving brain health outcomes, has partnered in this project to enhance available resource to support achievement of project goals in a timely fashion.

The proposed Innovation project seeks to make a change to an existing practice in the field of mental health in order to increase the quality of services, including measurable outcome by:

1) Developing an EP learning health care network (LHCN) software application (app) to support ongoing data-driven learning and program development across the state
2) Utilizing a collaborative statewide evaluation to:
    a. Examine the impact of the LHCN on the EP care network
    b. Evaluate the effect of EP programs on the consumer- and program-level outcomes.

Purpose of Brief:

This brief provides additional information on aspects of the LHCN that were not well described in the previously submitted proposal. We provide these details here to give additional clarity in particular areas, including the framework and data security features of the MOBI mHealth application, data monitoring plan, and dissemination plan.

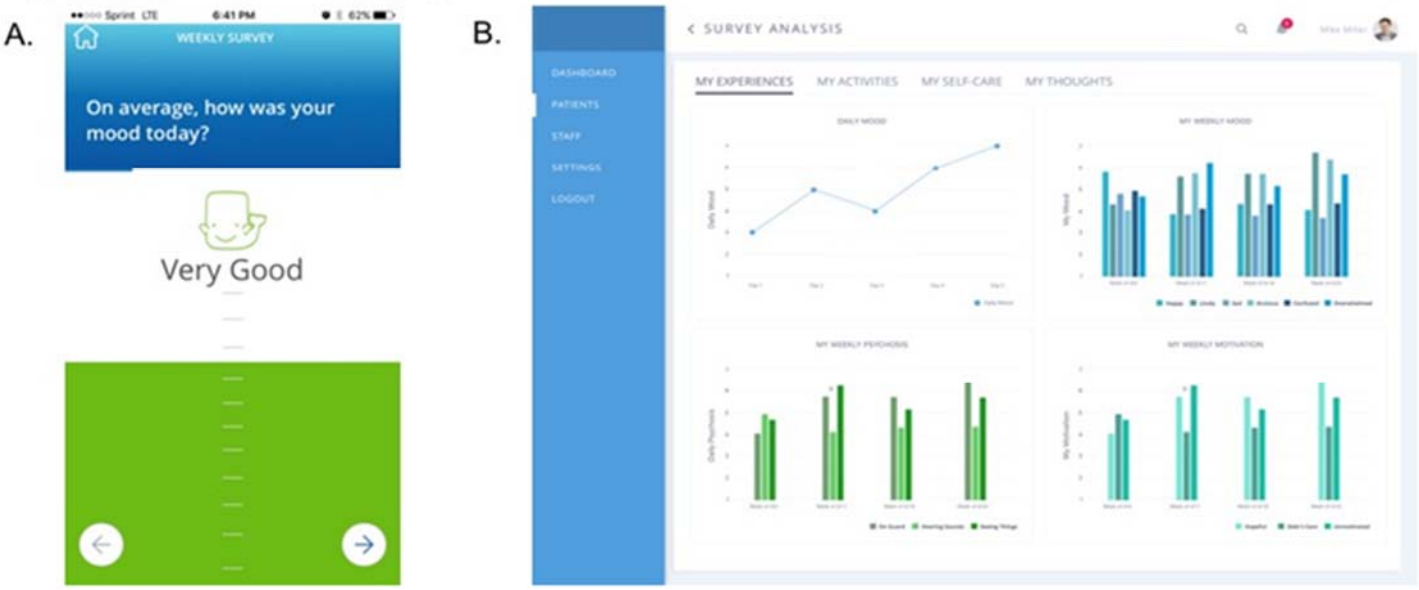
MOBI mHealth Network Application

Experts stress the need for measurement-based healthcare (J Fortney et al., 2015; Medicine, 2013) to improve client outcomes, enhance provider growth, and yield program improvement (JC Fortney et al., 2017). However, measurement-based care is not standard practice in mental health settings (Waldrop & McGuinness, 2017) and research suggests that less than 50% of mental health providers use data to inform treatment decisions (Lewis et al., 2015), impeding system-wide goals to use data to improve client outcomes. To shift clinical practice, providers need sufficient motivation, training and support to implement measurement-based care in treatment sessions and care decisions (Scott & Lewis, 2015). Our prior work implementing mHealth technology in community settings has helped us develop successful strategies to address this important barrier to change.

EP program participation in our proposed project was facilitated by the technologically innovative component of the MOBI informatics infrastructure combined with web-based data visualization. Using the MOBI app, clients and family members/support persons will complete validated self-report outcomes from the core assessment battery via iPads at baseline, 6, 12, 18, and 24 months (Fig. 1a). Client data is then visualized in real-time on the secure web-based dashboard (Fig. 1b). MOBI facilitates data collection via mobile devices and does not provide diagnostic or treatment information to clients or providers.

Both clients and providers provided positive feedback on the MOBI user experience. EP clients stated that using MOBI to help monitor symptoms and clinical outcomes “encouraged me to take my medication more frequently” (16 yr FEP client), and helped them to keep “better track of symptoms and medication” (20 yr FEP client). EP providers stated that using MOBI allowed them to “see patient responses in real-time versus waiting until our monthly check in” (Psychiatric Nurse Practitioner) and facilitated discussions of “changes in sleep patterns, symptom fluctuations, and interactions with others” (Therapist).

Figure 1. MOBI mHealth App and Dashboard



Training & Standardization for Implementation:

To support implementation of measurement-based care in clinical practice, we utilized stakeholder feedback from prior studies (Kumar et al., 2018; Niendam et al., 2018; Savill et al., 2018) to create training for EP providers on how to use client data during treatment to illustrate client progress toward recovery and inform collaborative treatment planning (Scott & Lewis, 2015). Our prior work demonstrated the feasibility and validity of collecting self-report symptom/outcomes data via client-facing applications and incorporating it into ongoing EP care for monitoring clinical outcomes (Kumar et al., 2018; Niendam et al., 2018). Acceptability figures are also promising: 85% of providers and 66% of clients endorsed continued use of digital health technology as part of EP care (Kumar et al., 2018). Similarly, technology-facilitated psychosis screening in schools and community health centers demonstrates high levels of acceptability, with 75% of staff noting it did not increase their workload (Savill et al., 2018).

MOBI Informatics infrastructure & Data Visualization:

When a user (client, provider, clinic administrator) is registered in MOBI by the Clinic Administrator, the system assigns a unique 128-bit Global Universal Identifier number (GUID). Each user is also assigned a secure log on and password to access 1) the app to enter data or 2) the dashboard to view a pre-specified level of data. MOBI alerts EP program staff to collect client data at the baseline visit and every 6 months thereafter until the end of 24 month follow up. MOBI will alert providers to administer the tablet up to 1 week prior and 1 week after the due date to ensure timely data collection. MOBI moves the participant through each core assessment measure in a seamless and friendly environment.

At the Clinician level, each provider can see their list of clients by name and a blue flag indicates a client completed a recent outcome evaluation. When an EP provider selects a client's name to view the client's dashboard, MOBI records the date, time, and viewing duration with the provider's login ID. MOBI will prompt EP staff to indicate 1) if the data is viewed during a client session and 2) how the data was used as part of care, such as "followed up by phone" or "scheduled follow up appointment," or "no action taken." These data use metrics allow analysis on rates of adoption and level of implementation of MOBI in the proposed study.

At the Clinician and Clinic Administrator level, data can be visualized by outcome measure 1) across all clients and time points, to show individual patterns of change over time; and 2) as an average of all clients across time points. Within MOBI, a “CA Benchmark” is computed in real-time across all individuals/sites and visualized as a dashboard overlay (Sarikaya, Correll, Bartram, Tory, & Fisher, 2018), with graphical and analytical characterization of outcome distributions, including central tendencies, variation and outliers. This benchmark quickly summarizes network data for rapid examination, allowing EPI-CAL sites and the UCD hub to see individual- or site-level variation across outcome measures and enabling quick intervention for clients or sites who deviate from sample-level expectations. MOBI also provides metrics of data completion by client/provider to monitor for missing data and timeliness.

At the Super Administrator level, research staff at the hub site can only view de-identified individual data at sites by GUID. MOBI is programmed to remove pre-specified protected health information (PHI) variables including age, year of birth, race, ethnicity, sex, gender identification/sexual orientation, and zip code by GUID and site. GUIDs are visible on the Clinician and Clinic Administrator dashboards to allow linkage between identifiable and de-identified data, if needed. Super Administrators can also see data visualizations by client or by site across time points, and metrics of data completion by client, provider and site. All data are populated to an embedded MySql database. MOBI allows download of de-identified data (.csv format) according to specified requirements (e.g. specific dates, sites). To add a measure to MOBI, a data dictionary is created with input from software developers, data managers, researchers and biostatisticians to ensure appropriate for data structure. Data quality metrics are embedded within the database (e.g. codes for missing data; specifications of data type and numeric format to prevent erroneous inputs; automatic scoring when appropriate). Through careful attention to database development and execution, MOBI minimizes the need for data cleaning at the hub level, allowing data preparation for immediate analysis as required by the RFA.

Quorum Technologies Inc./xcube labs will support ongoing software development for MOBI, contracted to UCD. This contract will provide software and database developers to enhance the MOBI application to collect data across the new core assessment measures, build in alerts to prompt site staff to administer the tablets on time, and collect data on EP providers’ use of MOBI to aid clinical decision making. A data manager at UCD will collaborate with Quorum during the system modification process to ensure the integrity of the database according to pre-specifications, to monitor data as it is collected by sites to ensure data quality, and troubleshoot data collection processes to inform Quorum that correction is needed for errors as they arise.

Security and Data Integrity: Security is provided at the app and dashboard levels. For the app, SureLock software on the tablets will restrict access to the MOBI application only, preventing non-authorized use of the tablet for other purposes or access to tablet settings. Devices that are sanctioned for use for the application will communicate via encrypted channels to the dedicated HIPAA-compliant customer cloud database. All data-at-rest and data-in-transit to/from Amazon Workstation (AWS) Simple Storage Service (S3) Data Centers is encrypted using SSL or client-side encryption. Adherence to all HIPAA requirements will be accomplished by the appropriate external infrastructure and global Policies and Procedures for HIPAA and HITECH rules, including Access controls, Integrity controls, Audit controls, Password controls, and Transmission controls. Information entered in MOBI is transmitted to the standard, external-facing, HIPAA-compliant Amazon Virtual Private Cloud (Amazon VPC). The Amazon VPC platform allows: 1) Basic AWS Identity and Access Management (IAM) configuration; 2) Multi-AZ architecture with separate subnets for different application tiers and private (back-end) subnets for the application and database; 3) Amazon S3 buckets for secured retrieval; 4) Standard Amazon VPC security groups for Amazon Elastic Compute Cloud (Amazon EC2) instances and load balancers; 5) Three-tier Linux web application using Auto Scaling and Elastic Load Balancing; and 6) A secured bastion login host to facilitate command-line Secure Shell (SSH) access to EC2 instances for troubleshooting and systems administration activities. Server-Side Data Encryption is

managed via AWS S3 Managed Keys (SSE-S3) or AWS KMS-Managed Keys (SSE-KMS). MOBI technical support staff will be provided via *a* secure remote access tool with participant consent (See *Human Subjects* for details).

Data Monitoring Plan

All data will be reviewed *weekly* by the PI and project staff to ensure that no problems exist with recruitment or data acquisition. Furthermore, a detailed review of all data will be conducted *monthly* to ensure appropriate collection and storage and to identify any outliers indicative of data entry errors. We will carefully monitor any potential risk factors throughout the course of the study.

Dissemination Plan

The proposed study seeks to develop the LHCN system for rapid dissemination into community practice. Results of qualitative interviews will identify barriers and facilitator to MOBI adoption and implementation, as well as the training and supervision required to support EP program implementation. This information will be used to develop videos and other training materials that can be used to support wider implementation of MOBI across additional EP programs. The LHCN will allow counties to identify common challenges and “lessons learned” can be quickly disseminated, creating a network of programs that rapidly learn from and respond to the changing needs of their consumers and communities.

In particular, the creation of the LHCN will support development of the EP Training & Technical Assistance Collaborative. During the development of the LHCN, an additional seven counties (Kern, Marin, San Luis Obispo, Santa Barbara, Sacramento, San Mateo and Ventura) expressed an interest in taking part in the project; however, they were working to develop their EP program with new funding or did not have available funding to participate at that time. These counties expressed interest in participating in qualitative aspects of the proposal, with the hope of joining the collaboration at a later date once network is established. They reported being particularly interested in learning from the LHCN and developing methods for training and technical assistance in the future. This highlights the broader interest by CA counties in the LHCN and supports the need for ongoing dissemination and engagement activities. UC Davis will survey counties and EP programs on a yearly basis to determine ongoing interest in joining the LHCN and how best to share information with them. For example, findings from the evaluation will be communicated with local and national stakeholders via BHCOE-supported webinars, 1-page briefs, or larger presentations based on the needs of the stakeholders. These will focus on providing information to consumer and family stakeholders, as well as local mental health practitioners. Other products from this project (e.g. webinars, written products, presentations) will be made available on the UC Davis Behavioral Health Center of Excellence (BHCOE) website (https://behavioralhealth.ucdavis.edu/events). The BHCOE has a regular public lecture series and, as results of the study become available, we will present a minimum of 2 lectures on study results in this forum.

Additionally, we will communicate the results of this project via publication in peer-reviewed academic journals or presented at conferences to share our findings with the larger community.

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