UCDAVIS
BEHAVIORAL HEALTH CENTER OF EXCELLENCE

Evaluation of Outcomes and Associated Costs for Early Psychosis Programs in California: Development of Methodology and Overview of Pilot Results

Tara Niendam, Ph.D.

Assistant Professor, UC Davis Dept of Psychiatry

Director of Operations, UC Davis Early Psychosis Clinics

MHSOAC
Mental Health Services
Oversight & Accountability Commission

SacEDAPT

CHPR
Center for Healthcare Policy and Research

Take Home Point

- Statewide evaluation of California's early psychosis programs represents an important opportunity to understand the impact of Prop 63

- UC Davis is developing a plan for statewide evaluation, but we need your support to accurately describe California's EP programs!

What is Psychosis?

- Psychiatric illness with core symptoms that include:
  1) hallucinations
  2) delusions
  3) unusual or disorganized behaviors or speech
  4) negative symptoms such as social withdrawal and loss of motivation

- Symptoms present between the ages of 15-25, earlier for men than women.

- Symptoms of psychosis are characteristic of disorders like schizophrenia

- BUT psychosis also presents alongside other symptoms, including depression, mania, anxiety…

Delays in Accessing Care for Psychosis

- Many individuals with psychosis experience significant delays in accessing appropriate care, including delays in receiving an accurate diagnosis.
  - Many individuals experience a Duration of Untreated Psychosis (DUP) of 18.5 months in the US (Kane et al., 2015)
  - A DUP of < 3 Months is Optimal (Drake, 2000)

- DUP is one of the strongest predictors of treatment response, clinical outcome, and functioning in work/school and social relationships (Marshall, 2005)

- Research evidence clearly supports early identification and treatment of psychosis

RATIONALE

EARLY IDENTIFICATION OF PSYCHOSIS

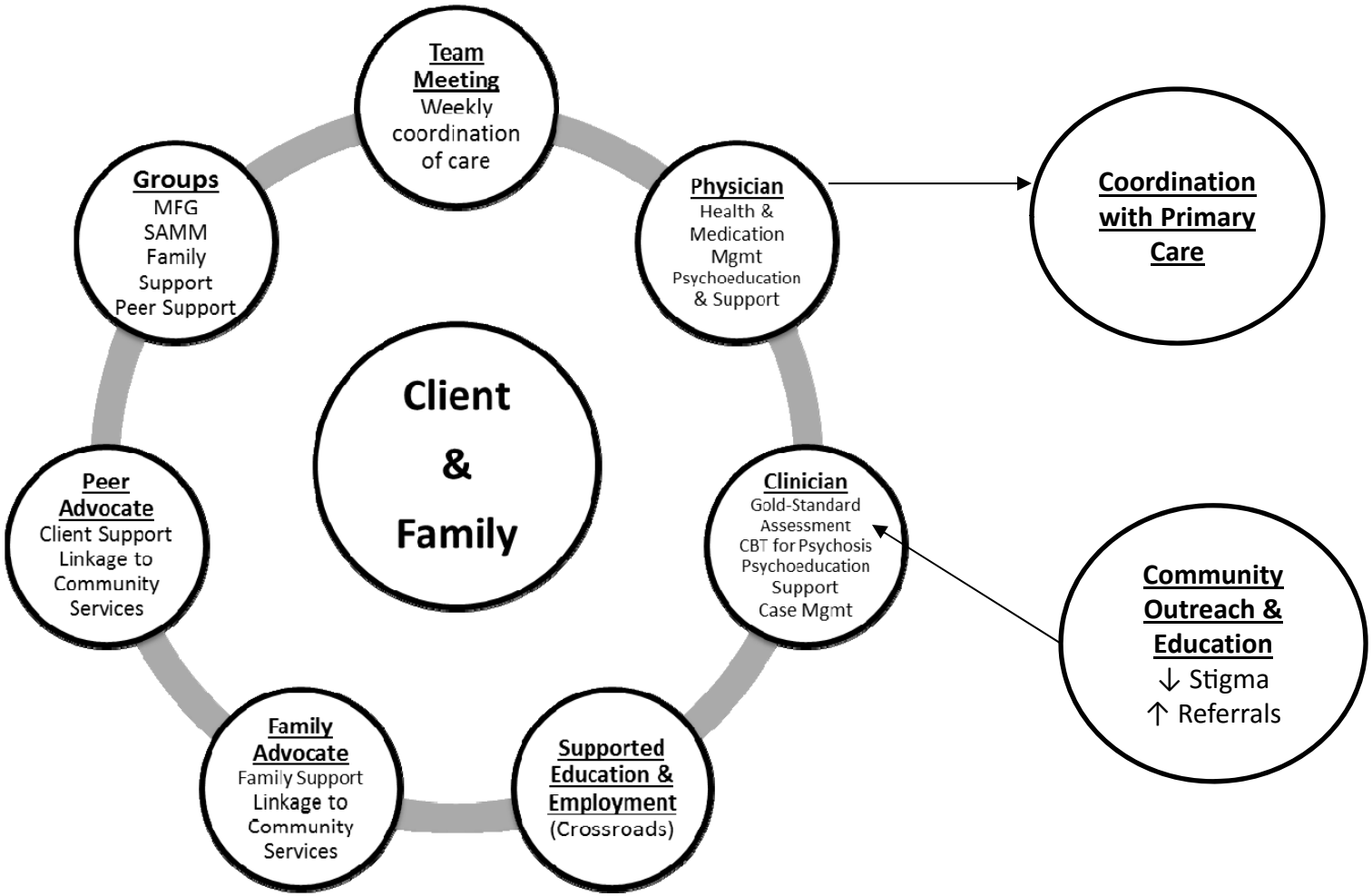
↓

COMPREHENSIVE EVIDENCE-BASED TREATMENT FOR YOUTH AND CAREGIVERS

↓

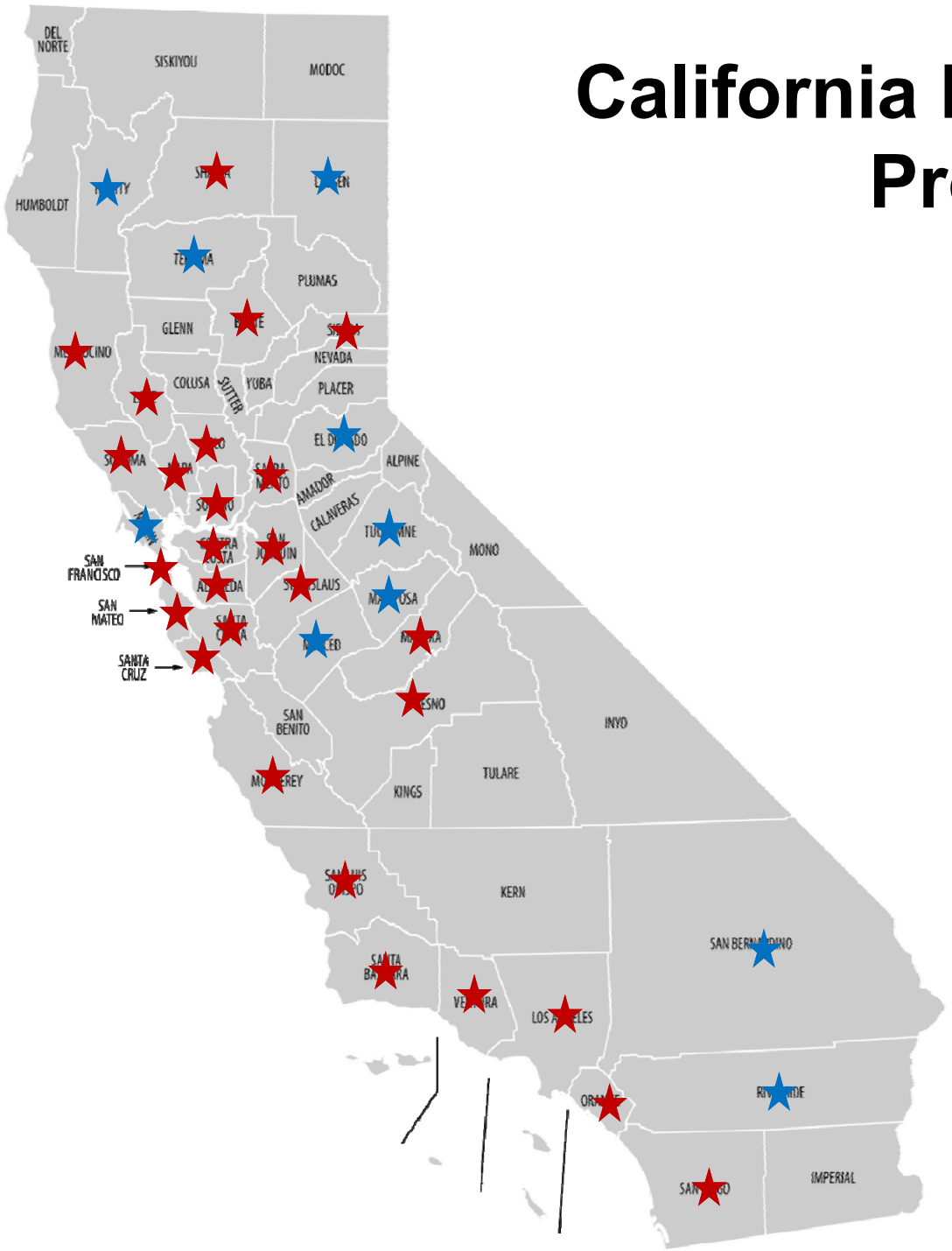
BETTER OUTCOMES!!

Coordinated Specialty Care Model



http://www.nimh.nih.gov/health/topics/schizophrenia/raise/coordinated-specialty-care-for-first-episode-psychosis-resources.shtml

California Early Psychosis Programs



Currently Active Programs (n=27)

- Alameda
- Butte
- Contra Cosa
- Fresno
- Lake
- Los Angeles
- Madera
- Mendocino
- Monterey
- Napa
- Orange
- Sacramento
- San Diego
- San Francisco
- San Joaquin
- San Luis Obispo
- San Mateo
- Santa Barbara
- Santa Clara
- Santa Cruz
- Shasta
- Sierra
- Solano
- Sonoma
- Stanislaus
- Ventura
- Yolo

Programs In Development (n=10)

- El Dorado
- Lassen
- Marin
- Mariposa
- Merced
- Riverside
- San Bernardino
- Tehama
- Trinity
- Tuolumne

Impact of Early Intervention for Psychosis

October 20, 2015 The New York Times NYTimes.com »

Breaking News Alert

BREAKING NEWS

A landmark schizophrenia study recommends lowering drug dosages and increasing therapy

Tuesday, October 20, 2015 12:03 AM EDT

More than two million people in the United States have a diagnosis of schizophrenia, and the treatment for most of them mainly involves strong doses of antipsychotic drugs that blunt hallucinations and delusions but can come with unbearable side effects, like severe weight gain or debilitating tremors.

Now, results of a landmark government-funded study call that approach into question. The findings, from by far the most rigorous trial to date conducted in the United States, concluded that schizophrenia patients who received smaller doses of antipsychotic medication and a bigger emphasis on one-on-one talk therapy and family support made greater strides in recovery over the first two years of treatment than patients who got the usual drug-focused care.

(RAISE-ETP, Kane et al., 2015)

Impact of Early Intervention for Psychosis

- Data from similar programs in UK and Australia show:
  - Reduced symptoms, reduced substance abuse, improved functioning
  - Cost savings related to improved mental health and reduced hospitalization rates
  - Potential savings related to prevention of psychosis in youth at high risk

What is the impact of EP programs in California
– related to costs AND outcomes –
for individuals who are served by the programs?

Goals of the Current Project

1. Develop a method for evaluating costs and outcomes associated with providing an EP program in California
2. Complete pilot project to test feasibility of proposed method (UC Davis SacEDAPT Clinic vs Comparator)
3. Identify and describe all currently funded (and planned) EP programs in California
4. Propose a method for a statewide evaluation of California EP programs.

#1) Method Development

- Reviewed the research literature
- Engaged Stakeholders from a variety of areas
- Identified relevant outcomes – related to MHSA goals
  - Healthcare Utilization – outpatient services, hospitalization, emergency/crisis care
  - Physical health – medical conditions, Body Mass Index (BMI)
  - Justice Involvement
  - Homelessness
  - Academic Achievement
  - Employment
  - Peer & Family Relationships
  - Clinical Disability
  - Comorbid Substance Use
  - Suicide & Self-Harm

#1) Method Development

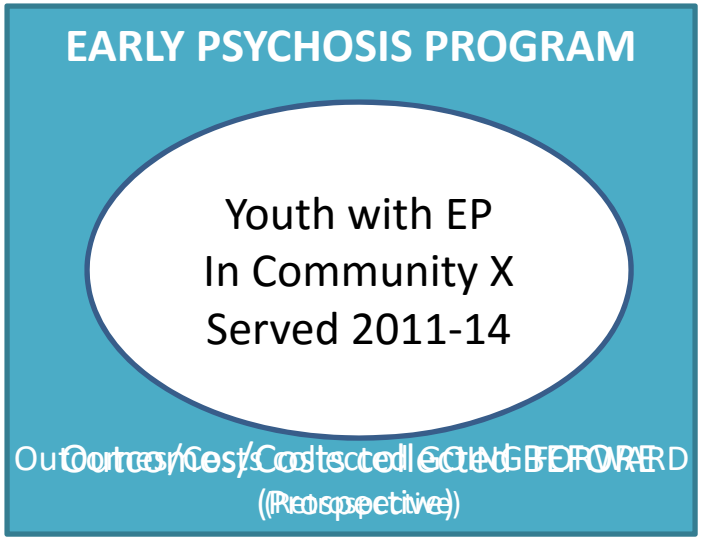
Identified potential sources of outcome data

- Able to identify MANY potential sources of data…
- BUT obtaining INDIVIDUAL LEVEL DATA was the challenge (i.e. HIPPA, privacy laws) → had to know the person was actually served by the EP program
- AND the data had to be potentially available at the statewide level
- AND the data had to be available for the comparator group

#1) Method Development

Why is a comparator group important?

- To say that an EP program is associated with “better outcomes” or “lower costs,” you must ask “compared to what alternative?”



Standard Community Care

#1) Method Development

With help from Sacramento County, we identified relevant clinics for the comparator group

→ Revised the sources of outcome data

Currently available in both programs

On individuals with same diagnoses, ages

Identified available cost data

- Must be able to tie it to individual level outcomes, for both the EP and Comparator groups
- Obtained individual level costs for:
  - Hospitalizations
  - Crisis Utilizations
  - Outpatient services

#2) Pilot Study

Tested feasibility of proposed method in Sacramento County

- **UC Davis SacEDAPT Clinic (EP Program)**
  - Serves individuals ages 12-30 with onset of psychosis in the past 2 years. Provides outpatient services for 2 years. Opened in July 2011.

- **Comparator Group (CG)**
  - Two outpatient programs from Sacramento County who serve youth and young adults during same time period (2011-2014).

- All three programs:
  - Are located on south side of Sacramento (comparable geographic location).
  - Provide comparable outpatient services to individuals of similar ages (12-30 year) and diagnoses (diagnosed with psychosis in past 2 years)
  - Are supported through similar funding streams (EPSDT Medi-Cal, MHSA)

#2) Pilot Study

De-identified individual-level data provided for EP and CG by Sacramento County REPO Unit:

- Data from electronic medical record (Avatar) → Demographics, Outpatient Service Utilization, Vitals/BMI, Medical Conditions
- CANS – only available up to age 21. Recoded from SacEDAPT outcomes data (CSFRA)
- DHCS MHSIP Consumer Survey – Adult & Child
- Hospitalization and Crisis Stabilization Usage
- Costs based on negotiated reimbursement rates for outpatient services, hospitalization, and crisis stabilization

#2) Pilot Study: Results

Demonstrated overall feasibility of proposed methods:

Identified a comparator group (n=64) that was generally comparable to our EP sample (n=114)

Obtained data across EP and CG clinics that addressed the outcomes of interest

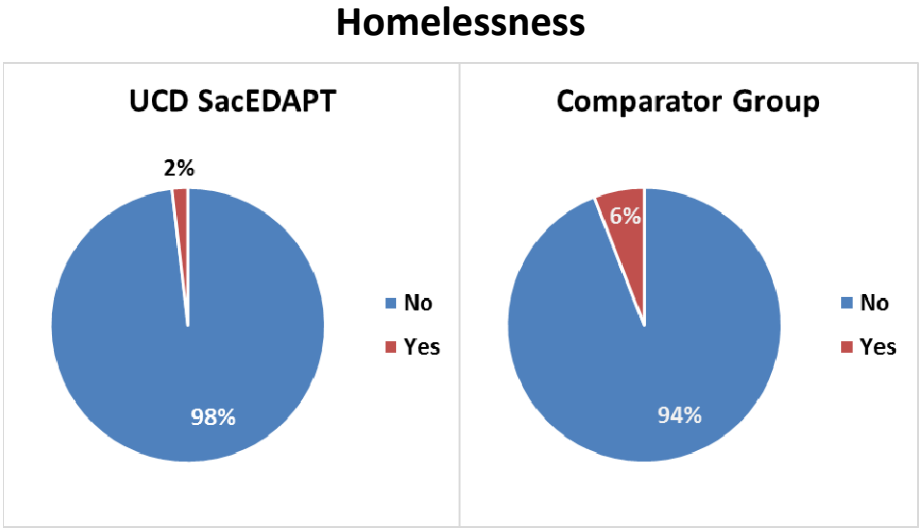
BUT…

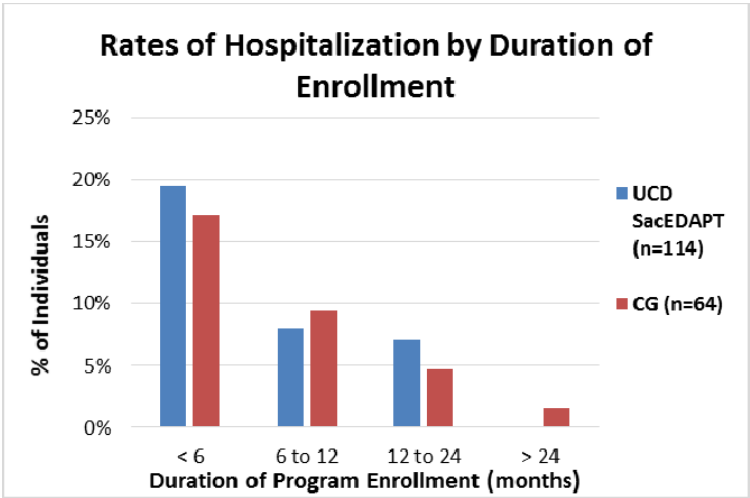
- Limited ability to address outcomes for adults due to age range of measures
- Limited outcomes data – CG started CANS data collection in FY13-15; DHCS MHSIP Consumer Survey –Youth only administered annually.
- Analysis was cross sectional, not longitudinal (within person)

#2) Pilot Study: Results

During enrollment, EP and CG program clients showed comparable outcomes across many domains

- Low rates of homelessness, legal involvement
- Comparable and low rates of crisis utilization and hospitalization
- Improvements in school achievement
- Reduced symptoms of psychosis and depression

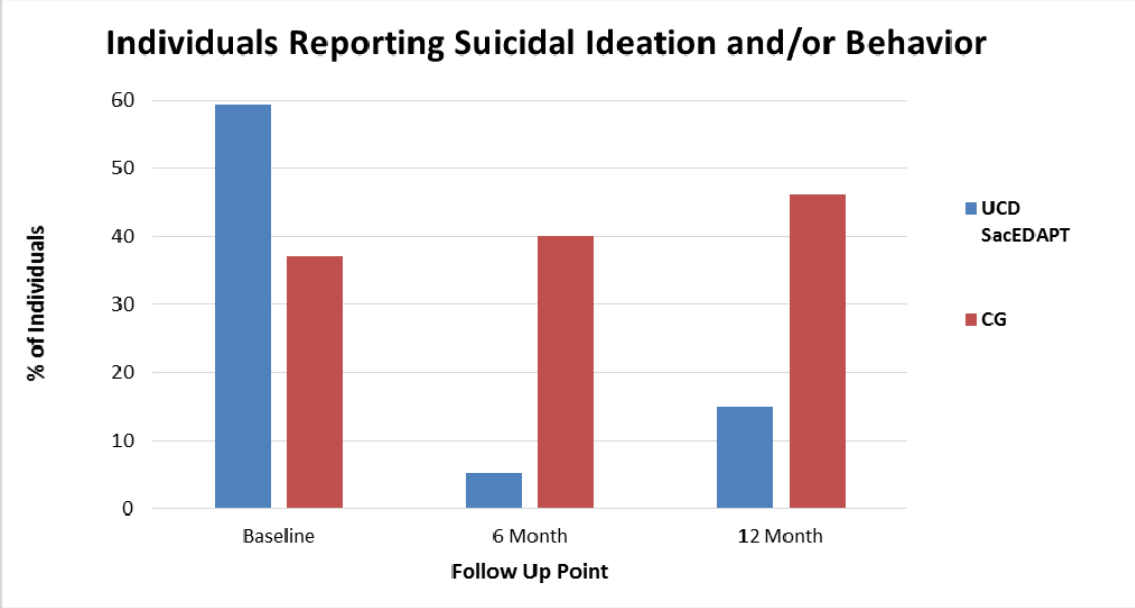




#2) Pilot Study: Results

In the first year of enrollment, compared to CG, EP clients showed:

- Greater reductions in suicidal ideation/behavior and NSSI
- Greater reductions in problematic substance use



#2) Pilot Study: Results

Obtained cost data by fiscal year for healthcare utilization, including hospitalization, crisis stabilization, and outpatient services.

- Overall, no statistically significant difference in costs
- Previous research suggests we need data from more than 1 site to find differences

#2) Pilot Study: Lessons Learned

- While we were able to obtain data on outcomes and costs, there were significant limitations that precluded strong conclusions

- **Larger sample sizes across consistent measures are needed to understand the impact of EP programs on outcomes and costs**

  → Motivation for statewide evaluation

#2) Pilot Study: Lessons Learned

Options for Statewide Evaluation:

- Longitudinal, prospective study of core data elements for EP vs Comparator
  - Most rigorous & comprehensive
- Longitudinal, prospective study using current data collection methods with improvements (e.g. CANS)
  - Improve coding of CANS, avoiding missing data
- Retrospective analysis using current data collection methods
  - Limitations will be same as pilot analysis, especially seeing changes over time

#3) Describe EP Programs in CA

Prior to proposing a method, must determine which California EP programs could be included in a statewide evaluation.

Currently working to:

- Identify all EP programs in California
  - Currently open and enrolling clients
  - In planning or development stages

- Reviewed various data sources → Found:
  - 27 counties with current EP programs
  - 10 counties planning EP programs

#3) Describe EP Programs in CA

With support of stakeholders, we developed an online survey to evaluate components of these programs:

- Who are they serving?
- What components of standard EP care do they provide?
  - First Episode Psychosis Services Fidelity Scale (FEPS-FS 1.0; Addington et al., 2013)
- How many individuals are they serving?
- How are they funded?
- What data are they currently collecting?
- What format is the data in? (Electronic vs Paper)

#3) Describe EP Programs in CA

Survey will be sent to program leadership of the active EP programs in coming weeks

Will assess similar domains via a separate online survey for the EP programs currently in development

Will contact MHSA Coordinators for the counties without EP programs to determine if they are considering implementing an EP program in the future and, if not, what are the concerns or barriers.

#3) Describe EP Programs in CA

Data from the EP program survey will be used to:

- Describe the EP programs that are currently active in California
  → Understand how services are being provided in each county and to whom

- Identify programs that serve comparable populations and provide comparable services consistent with EP practice guidelines
  → Potential programs to include in statewide analysis

- Identify potential sources of outcome and cost data that are available across EP programs and could be used in a statewide analysis

#4) Proposal for Statewide Evaluation of EP Programs in CA

Pilot analysis revealed challenges with retrospective approach based on available data

- EP programs represent a unique opportunity → most programs already collect data as part of their approach
  - Survey will determine what data could be used for statewide evaluation OR where gaps remain

- Survey is key next step in designing statewide analysis
  - Need the support of all counties to understand current landscape of EP programs to develop meaningful analysis

Given increasing demand for outcomes-based results (e.g. by funding sources - SAMHSA MHBG), statewide evaluation would make a significant contribution to demonstrating the impact of EP programs in California

UCDAVIS
BEHAVIORAL HEALTH CENTER
OF EXCELLENCE

Questions?
Suggestions?

MHSOAC
Mental Health Services
Oversight & Accountability Commission

SacEDAPT

CHPR
Center for Healthcare Policy and Research

UCDAVIS
BEHAVIORAL HEALTH CENTER OF EXCELLENCE

Thank You!

Thank you for your time, energy, and ideas.
We deeply appreciate your input.

MHSOAC
Mental Health Services
Oversight & Accountability Commission

SacEDAPT

CHPR
Center for Healthcare Policy and Research