



WELLNESS • RECOVERY • RESILIENCE

February 23, 2017
PowerPoint Presentations and Handouts

- Tab 2:** • PowerPoint: Santa Cruz County Innovation Plan
- Tab 3:** • PowerPoint: Merced County Innovation Plan
- Tab 4:** • PowerPoint: Riverside County Innovation Plan
- Tab 6:** • PowerPoint Innovation – The Verily View, Thomas R. Insel, MD, Verily Life Sciences



Innovation Plan- Integrated Health and Housing Supports

Erik G. Riera, Director

Pam Rogers-Wyman, Director Adult Services

Alicia Najera, Director of Watsonville Services



County of Santa Cruz

Population: 270K residents

Geographic Area: 607 square miles

Ethnicity: 33% Hispanic, 58% Non-Hispanic

Housing: Median Rent for 1 bedroom = \$1,500

Disability Income < \$1100 per month



Introduction- Goal

-Establish an Innovative Program that will more effectively support individuals in supportive housing through the use of:

- Telehealth monitoring devices to monitor mental health and other health conditions
- Peer and Family mentors to provide in home supports and reinforce healthy living and engagement in services- mental health, substance use disorder services and primary care

-For consumers who have a severe mental illness and a co-occurring other health condition such as diabetes, hypertension, obesity and Chronic Obstructive Pulmonary Disease (COPD)



Need:

- Adults with a severe mental illness have a lifespan that is 25-years shorter than the general population who do not have an SMI
 - Risk for chronic disease is much higher in individuals with SMI
 - Examples*:

Risk Factors	Schizophrenia	Bipolar Disorder
Obesity	45-55% prevalence, 1.5 -2X relative risk	26% prevalence
Diabetes	50-80% prevalence, 2-3X relative risk	10% prevalence
Hypertension	18% and over prevalence	15% prevalence

*Bartels, S. (December 20, 2013) Closing the Gap: Implementing Evidence Based Behavioral Health Practices for Older Americans., Geisel School of Medicine at Dartmouth Medical School



Need, continued....

- Individuals with SMI and other serious health conditions are at higher risk of losing their housing which is compounded by the additional risks that other health conditions place on the individual
 - Ability to secure housing in Santa Cruz is nearly impossible for this population
 - Out of market for affordability
 - Wait lists for Section 8's are years long
 - Other serious health conditions deteriorate over time and create risk for institutional placement
 - These individuals remain disproportionately housed in locked mental health rehabilitation centers at great expense to the County, and these facilities do not support opportunities for independent living that should be guaranteed to our clients



County of Santa Cruz

Serving the Community ~ Working for the Future

Proposal:

- Create an Integrated Health and Housing Support Program
 - Utilize apartments in the community that will be leased through a master lease agreement
 - Serve up to 60 individuals per year
 - Telehealth monitoring device in the home to monitor blood glucose, weight and BMI, and other health and mental health symptoms to flag individuals needing attention from the mental health team or primary care
 - Integration of information with the clients Electronic Health Record on the health and mental health side
 - Close coordination of care through a multidisciplinary team made up of nursing staff, medical assistants, peer and family mentors, case managers, psychiatrists and primary care physicians.



Program Participants:

- Individuals with a severe mental illness (SMI)
 - Receiving primary care services through a County operated FQHC
 - Require intensive community based housing supports to remain in the community due to a mental illness and/or substance use disorder
 - Have a co-occurring other health condition such as diabetes, COPD, obesity, hypertension
 - Interested in participating in the program voluntarily
- Program will be subject to IRB approval through our proposed evaluator, Applied Survey Research.



County of Santa Cruz

Serving the Community ~ Working for the Future

Learning Objectives:

- How to more effectively address mental health and other health conditions to support improved community tenure and symptom reduction through the use of telehealth monitoring devices, and peer and family mentors
- Anticipated results:
 - The more effective control of other health conditions, the more likely positive effects on the individuals mental health condition: Primary Area #1 being researched
 - The more effective both areas are controlled, the more likely an individual is to remain in independent housing: Primary Area #2 being researched
 - The use of peer and family mentors in a scattered site supported housing model will prove a highly effective model at supporting community tenure: Primary Area #3 being researched
 - Medication adherence will improve, thus contributing to improved health and other health stability, through the use of telehealth monitoring devices in the home: Primary Area #4 being researched



County of Santa Cruz

Serving the Community ~ Working for the Future

Community Input into the Proposed Plan:

- Evidence Based and Integrated approaches to services has been identified as a key priority area in the County's Mental Health Strategic Plan:
 - Santa Cruz County: A Community Roadmap to Collective Mental Health Wellness
- May 2016: Town Hall meeting to discuss options under MHSA planning in relation to MH Strategic Plan
- September 2016: Additional community forums to discuss Innovative Plan development
- September – October: Public Comment Period
- October 20, 2016: Public Hearing
- January 24, 2017: Board of Supervisors Approval for submission



Proposed Budget:

B. New Innovative Project Budget By FISCAL YEAR (FY)*							
EXPENDITURES	Beg: April 2017				Ends: March 2022		
	FY1617	FY1718	FY1819	FY1920	FY2021	FY2122	Total
NON RECURRING COSTS (equipment, technology)							
Contractor: Telehealth Devices @ \$1,000/each x 60 devices	60,000	-	-	-	-	-	60,000
Contractor: Telehealth Integration Fees @ \$30,000	30,000	-	-	-	-	-	30,000
Iphone (for Medical Assistant @ approx. \$200/each)	200	-	-	-	-	-	200
Total Non-recurring costs	90,200	-	-	-	-	-	90,200
Personnel							
Medical Assistant (Salaries & Benefits)	21,509	90,924	96,099	96,099	98,489	75,719	478,839
Medical Assistant (Operational Costs)	1,549	4,192	4,217	4,217	4,229	3,030	21,434
Total Personnel	23,058	95,116	100,316	100,316	102,718	78,749	500,273
CONSULTANT COSTS/CONTRACTS (clinical, training, facilitator, evaluation)							
Contractor: Integrated Health Housing Support Team	162,718	671,346	684,773	698,468	712,436	545,013	3,474,754
Contractor: Master Lease & Rent Subsidies	95,000	380,000	391,400	410,970	431,519	339,821	2,048,710
Total Contract Operating Costs	257,718	1,051,346	1,076,173	1,109,438	1,143,955	884,834	5,523,464
OTHER EXPENDITURES (please explain in budget narrative)							
Contractor: Telehealth Connection/Software Fees (60 devices)	12,420	49,680	50,400	51,120	51,840	39,420	254,880
Contractor: Program Evaluation	50,000	25,000	25,000	50,000	50,000	25,000	225,000
Total Other Expenditures	62,420	74,680	75,400	101,120	101,840	64,420	479,880
BUDGET TOTALS							
Non-recurring costs	90,200	-	-	-	-	-	90,200
Personnel	23,058	95,116	100,316	100,316	102,718	78,749	500,273
Contract Operation Costs	257,718	1,051,346	1,076,173	1,109,438	1,143,955	884,834	5,523,464
Other Expenditures	62,420	74,680	75,400	101,120	101,840	64,420	479,880
Total Gross Budget	433,396	1,221,142	1,251,889	1,310,874	1,348,513	1,028,003	6,593,817
Administrative Cost @ 15% Net of INN Funds	45,408	103,162	106,666	114,702	119,375	91,288	580,602
Grand Total	478,804	1,324,304	1,358,555	1,425,576	1,467,888	1,119,291	7,174,419
C. Expenditures By Funding Source and FISCAL YEAR (FY)							
Estimated total mental health expenditures for the entire duration of this INN Prc	FY1617	FY1718	FY1819	FY1920	FY2021	FY2122	Total
Innovative MHSAs Funds	348,128	790,911	817,774	879,381	915,210	699,875	4,451,280
Federal Financial Participation	73,188	303,440	310,828	316,242	322,725	246,951	1,573,374
Behavioral Health Subaccount	19,988	79,953	79,953	79,953	79,953	59,965	399,765
Other funding* - MHSAs CSS	37,500	150,000	150,000	150,000	150,000	112,500	750,000
Total Proposed Administration	478,804	1,324,304	1,358,555	1,425,576	1,467,888	1,119,291	7,174,419



Questions?

Thank-you for your time and consideration of our proposal.

Proposed Motion

- **Proposed Motion:** The MHSOAC approves Santa Cruz County's Innovation Project, as follows:
- **Name:** Integrated Health and Housing Supports
- **Amount:** \$4,451,280
- **Project Length:** Five (5) Years





**BEHAVIORAL HEALTH AND
RECOVERY SERVICES (BHRS)**

**ABC FRAMEWORK MODEL
Innovative Strategist Network
(ISN)**

Hope
CHANGES EVERYTHING

Introduction



- We are presenting Merced County's Innovative Plan
- Designed for transformational benefits
- Community wide Innovative thinking, strategies and actions
- Catalyst for improved health outcomes and services.



Project Overview

- Development of an Innovative Strategist Network (ISN)

- To provide barrier-free services and linkages to services, allowing clients to be given the services and supports they need through an open, whole person care, and more customizable version of mental health services delivery.

- Implement ISN using an ABC Framework Model

- **A**ppreciative inquiry: provides a positive approach to care that builds off of “what has been going well” and “what can be done to make things better”.
- **B**uilding Capacity: focuses on understanding the obstacles that inhibit people from getting and maintaining needed services.
- **C**are coordination: brings together various providers and information systems to coordinate health services, patient needs, and information to help better achieve the goals of treatment and care.



Project Overview (continued)

■ Implementation of ISN

- ISN will serve all ages (youth, TAY, adult and older adult) through both internal BHRS program staff and external contracted services, Monday – Friday, 8 am to 5 pm, with possibility of flexible operating hours.
- ISN team will consist of seven (7) direct service Strategists, each with a unique skill-set designed to address gaps in service. Since each Strategist has different qualifications ranging from clinical to community to peer expertise, a Strategist can be paired with a client, based on the identified level of care required.

■ Areas of Innovation Focus

- Increase access to services
- Promote interagency collaborations



Project Overview (continued)

■ Service Needs

- Merced County has a population that continues to grow, and the Central California Alliance for Health reports that there are 127,603 Medi-Cal beneficiaries in Merced County which has an overall population of 268,455.
- BHRS currently serves 3,891 of those beneficiaries
- The ISN goal is to be able to address service gaps and build capacity beyond the limits of Mental Health Plan guidelines.
- The ISN would also be more flexible than the program requirements of a Full Service Partnership.

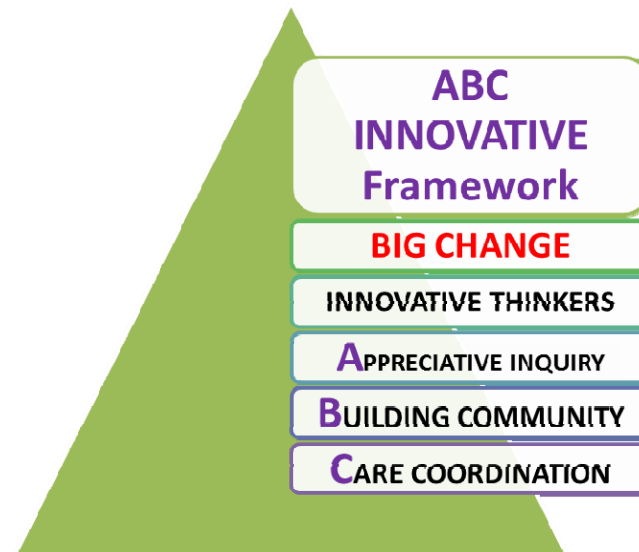
■ Baseline Data

- The first 6 months to one year of ISN implementation will be a program-building period which will include establishment of baseline data and further id of gaps.

Program Grand Strategy

“ABC Framework Model adapted from the principles of

- Leadership Development
- Change Management
- Capacity Development



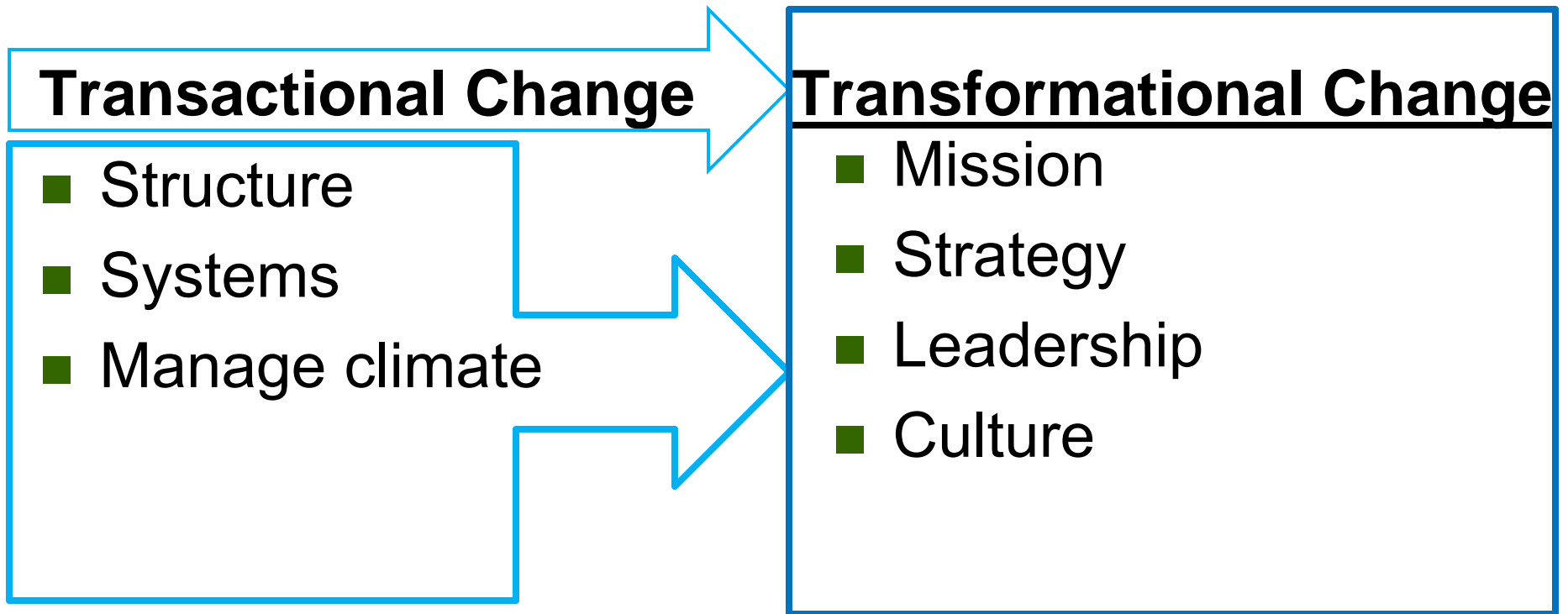


Program Grand Strategy (Cont.)

- **Open Mental Health Pathways**
- **KEY Strategist (ISN)**
- **Innovative Thinkers (ISN)**
- **Infuse The Community System**



Steps to Transformational Change





How is the ISN Innovative?

- Increase access to and quality of services
 - ISN creates a network of Innovative thinkers and strategists that can readily identify strategies and coordinate care that lead to positive outcomes and improved services, wellness and recovery
 - Provide timely care and uncomplicated entry into services through decreased barriers and improved coordination among involved partners
- Promote interagency collaborations
 - Create a clear infrastructure for interagency cooperation and coordination, including a process for identifying and referring clients to ISN
 - Improve communication flow and knowledge of available resources to ensure timely and improved access to services

Community Planning Process

- ❑ The development of the ISN came to be through the MHSA Community Planning Process :
- ❑ Community meetings and focus groups held at multiple locations and attended by:
 - ❑ Consumers, Family Members of Consumers, Child Care Providers, Public Agency Representatives, Community Representatives, Public Members
- ❑ Key informant interviews
- ❑ MHSA Ongoing Planning Council
- ❑ The Stakeholder process is active and robust



Community Planning Process

- Main issues identified in focus groups and by stakeholders:
 - Insufficient system flow
 - Absence of infrastructure
 - Shortage of capacity to provide services
 - Need for strategic goals and system wide improvement and sustainability

- MHSA 16/17 Annual Update, including ISN Innovation Project, approved by Board of Supervisors on November 22, 2016



ISN Customer Profile

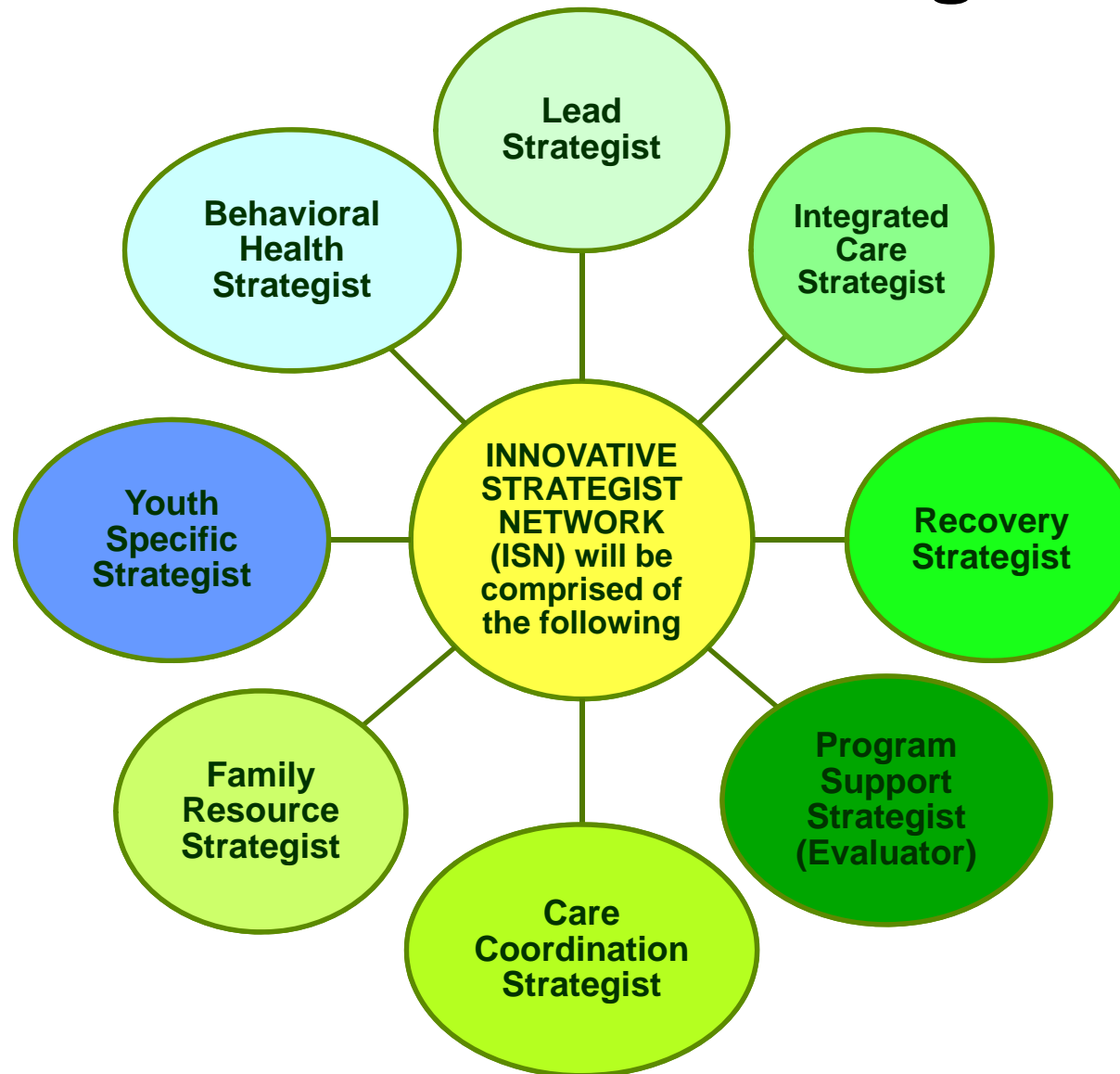


ISN will work with individuals with Serious Mental Illness (SMI) and those with mild to moderate problems

ISN will support the client with this barrier profile:

- Limited Availability of Medical and Health Professionals
- Closed pathways to healthcare
- Limited Affordability
- Policy Limitations
- Lack of Family and Community Support
- Stigma and Discrimination
- Disconnect with Service Providers
- Experience with system failure

ISN Team Profile – 8 Strategists



How will services flow ?



- **Step 1:** ISN receives walk-in service requests or referrals from community or partners
- **Step 2:** ISN staff (strategists) work with clients to complete paperwork/intake of data
- **Step 3:** ISN Staff or Team determine appropriate avenue of care/appropriate strategy
- **Step 4:** ISN is not appropriate for client and client is referred to other services, OR
- **Step 5:** ISN is appropriate for client and client is connected to appropriate Strategist

How will services flow? (Cont.)



- **Step 6:** Client meets with assigned Strategist
- **Step 7:** Client receives on-going ISN services and continues until other referral made or appropriate and successful discharge
- **Step 8:** Strategist may link client to other ISN services as needed based on level of care required
- **Step 9:** ISN client continues in program until discharge, OR
- **Step 10:** Referrals made to higher level of care as needed



Budgeting and Time Period

- Proposed 5-Year Implementation Period
 - Adult ISN funding total: \$5,597,288 (BHRS)
 - Internal BHRS funding for the Program Support Strategist will fund a contracted Program Evaluator
 - Youth ISN funding total: \$1,265,000
(Contracted)
- TOTAL 5-YEAR FUNDING: \$6,862,288



Learning Objectives

Merced County BHRS seeks to learn:

- How does the ISN, with the focus on strength-based strategies to open pathways to wellness, impact improved access to services and linkages to other providers?
- How will developing an “ABC Innovative Framework Model”, inclusive of the 4D-Cycle approach, impact positive client outcomes and stigma reduction?
- How does the development of a professional and knowledgeable Strategic/Innovative team build community capacity and care coordination?
- How does the ISN increase the number of adults being served and provided adequate resources and services?
- Does the ISN impact adults desiring improvements in their mental health and wellness by identifying resources and connections to appropriate care?



Project Evaluation

- BHRS will develop an evaluation framework and a team to consider the effectiveness of the ISN, including consideration of the identified learning objectives and evaluation of system and client level outcome measures, including, but not limited to, data reports, development and tracking of program goals and satisfaction surveys
- ISN Project evaluation team will include internal BHRS staff and an expert external evaluator secured through a fair bid process, such as Request for Proposal (RFP)
- ISN Project evaluation will be a multi-year process and stakeholders will be updated and have input along the way
- Progress and outcomes will be communicated to the community through presentations and updates at MHSA Ongoing Planning Council meetings, community partner meetings, and Behavioral Health Board meetings



The Transformational Outcome

- By 2021 the Merced Community will be familiar with the ABC Innovative Framework philosophy which will have documented benefits of promoting recovery and wellness.
- By June 2021 there will be an increase of mild to moderate clients receiving innovative specialty care.



The Transformational Outcome (Cont.)

- By June 2021 the pathways to healthcare will be open by:
 - Creating effective access for individuals experiencing barriers to mental health care
 - Improving the client experience in achieving and maintaining wellness
 - Improving care coordination across the system, including linkages to other needed resources and timely access to mental health services



ISN Success and Sustainability

- At the conclusion of the five-year project timeline, if the ISN is determined to be a successful program and worthy of sustainability, BHRS will take the necessary steps to transition the ISN under both the Community, Services and Supports (CSS) and Prevention and Early Intervention (PEI) Components of MHSA.
- The ISN incorporates essential elements that adhere to both CSS and PEI components.
- This transition would involve comprehensive reporting of the project findings, data and outcomes to stakeholders, the community, the MHSA Ongoing Planning Council and the MHSOAC.



Questions ?

Proposed Motion

- **Proposed Motion:** The MHISOAC approves Merced County's Innovation Project, as follows:
- **Name:** Innovative Strategist Network (ISN)
- **Amount:** \$6,862,288
- **Project Length:** Five (5) Years





Riverside County MHSA Innovation Plan Commercially Sexually Exploited Children (CSEC)

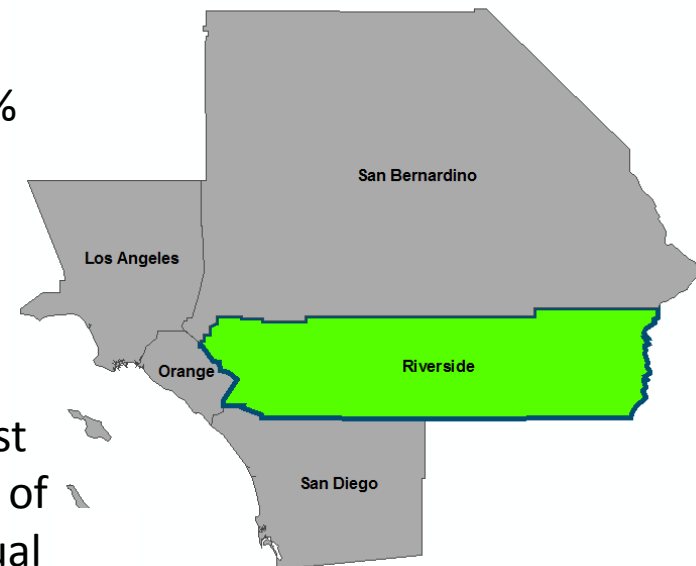
Riverside County Profile

Riverside County is the fourth most populous county in the state with an estimated 2,323,527 residents (2015)*

Approximately 26% of the population is under the age of 18

Overall Population

- Hispanic/Latino 47%
- Caucasian 38%
- Black/African American 6%
- Asian/Pacific Islander 7%
- Multiracial 2%



Riverside directly north of San Diego and directly east of Los Angeles has been referred to as an extension of LA when identifying “hot spots” for commercial sexual exploitation of children

*<http://www.dof.ca.gov/Forecasting/Demographics/Projections/P-3>: Excel Data Files; Total Population Only by Race Ethnicity and Age

CSEC Defined

- **Child sex trafficking** is one of the most common types of **commercial sexual exploitation**. Child sex trafficking victims include girls, boys, and LGBTQ youth. Victims could be anyone – your daughter, neighbor, or nephew.
- According to the federal Trafficking Victims Protection Act **sex trafficking** is defined as “the recruitment, harboring, transportation, provision, obtaining, patronizing, or soliciting of a person for the purposes of a commercial sex act.”
- A **commercial sex act** is “any sex act on account of which anything of value is given to or received by any person.” Therefore, any youth who is under 18 who is exploited through commercial sex, where something of value – such as money, drugs or a place to stay – is traded for sexual activity, is a victim of sex trafficking.

Community Planning Process

MHSA Year Round On-Going Planning process

MHSA Planning Committees

Committees represent a broad cross-section of community

Mental Health Consumers—Family Members – Community Members – Peer Specialists – Family Advocates
Parent Partners – Community Based Orgs – Public Agency Staff – Behavioral Health Commissioners

Four Age Span Committees

Children- TAY
Adult and Older Adult

Cross Collaborative Committees

Criminal Justice
DPSS
Cultural Competency/Reducing Disparities
Consumers Wellness Coalition
Behavioral Health Commission

Prioritizing Issues

Bringing Forward Concerns of
Community and Stakeholders

Generating Ideas

CSEC as Priority

Parent Partners
heard about the
need from parents,
school districts,
providers

**Community
expressed need to
understand how to
better serve CSEC
Youth and avoid
additional
traumatization of
victims and their
families in the
process**

TAY Collaborative
Committee
identified need

Cross-Collaborative
Committees (DPSS &
Criminal Justice)
expressed concerns
with not knowing
about treatment
options that work for
CSEC youth

Questions Arose

What therapeutic Responses are best ?

What works with this population?

What are the treatment options available?

MHSA Steering

Age Span Committees

Children –TAY

Cross Collaborative Committees

Criminal Justice
RCAHT

CSEC Committee(DPSS)

Riverside Co.

Assessment Team

TAY Collaborative

Behavioral Health
Commission

MHSA Year Round
On-Going Planning
Process

Eliciting feedback
and informed
decision making
through MHSA
Planning
Committees

Collaborative
Committees
and TAY
Collaborative
Brought
Forward Ideas

Conference call
with MHSOAC
Feedback
Discussion

Submittal to
MHSOAC for
Feedback

Development of
Innovation
Proposal

30-Day Comment
Period
November 2016

Public Hearing
December 2016

Submittal to
MHSOAC
January 2017

BOS Approval

Steering Committees represent a broad cross-section of community
Mental Health Consumers–Family Members – Community Members – Peer Specialists–Family Advocates–
Parent Partners–Community–Based Orgs–Public Agency Staff–Behavioral Health commissioner

The Need

Youth that have experienced commercial sexual exploitation present unique challenges for therapy. Current therapies are ineffective for this unique population. Victims of CSEC are difficult to engage and retain in therapy.

- CSEC youth are at a high risk for experiencing symptoms of traumatic distress including PTSD, anxiety, and depression.
- CSEC youth often do not view their exploitation as traumatic
- Dangerous and risky behavior.
- Repeated running away, often returning to the abuser.
- Multiple problems can overwhelm caregivers and lead to challenges in providing stable placement.
- Recently at least 129 youth have been identified as CSEC victims by County Probation or the Department of Public Social Services.

Total Innovation \$6.2 Mil over 5 years* Yr 1- \$1.8 Mil. Yr 2- \$1 Mil. Yr 3-\$1 Mil.

Yr 4 and 5 are \$1.1 Mil each year

*Rounded dollar figures

The Challenge

- There is a lack of knowledge regarding the model of mental health service delivery that is most effective for child victims of commercial sexual exploitation.
- A review of the literature showed little information is available on which mental health approaches best promote and support recovery and the transition into productive lives and a hopeful future.
- Researchers have recently suggested that adaptations to evidence-based treatments are needed to address the complex clinical needs of these youth (Cohen, Mannarino, & Kinnish, 2015).

Innovation Project

The Proposed Project

The proposed CSEC Field Based Project combines an adapted TF-CBT model to effectively treat trauma with a field-based coordinated Specialty Care Team approach designed to meet the challenges of continued engagement with CSEC youth.

Key Activities

- Focus on engagement, meet youth where they are at.
- Field based one youth, one family, one team.
- Adapt TF-CBT to include Motivational Interviewing and significant work with Caregivers/Families.
- Utilize Parent Partners and TAY Peers with experience as exploited youth.
- Train agency partners and caregivers/parents in trauma informed care.

Innovation Project

The CSEC Field Based Project will establish four teams:

- ✓ Staffing: Clinical Therapist, Child Psychiatrist, Parent Partner, a Peer Specialist (with transition age youth experience), a Licensed Vocational Nurse, and a shared Behavioral Health Specialist.

Focus on providing a rapid response to request for treatment for a CSEC youth and their families or caregivers.

A field-based coordinated Specialty Care Team using a “Wraparound” like approach is best suited to address the challenges.

Utilizing strategies suggested by the developers of TF-CBT, these teams will be trained in using TF-CBT with an adaptation to include motivational interviewing and significant work with caregivers to engage and treat CSEC youth (Cohen, Mannarino, & Kinnish, 2015).

Expected Outcomes

Expected Outcomes

- Increase engagement and retention in treatment services
- Reduce trauma symptoms
- Increase mental well-being
- Decrease recidivism back into commercial exploitation
- Reduced running away and decrease placement challenges
- Increases in participation in school or work

Target Population

- It is expected that the program will serve approximately 100 CSEC youth per year.
- Referrals are expected from Probation, Department of Social Services, School Districts as well as outreach for youth self-referral.

The Innovation

MHSA Project Category – Makes a change to an existing mental health practice that has not yet been demonstrated to be effective.

Primary Purpose – Increase the quality of mental health services including measurable outcomes.

1. Specific therapies, which may help reduce trauma symptoms related to CSEC, have not been tested and little is known about their effectiveness.
2. There is little information regarding engagement of CSEC victims and their families into care and their successful return to the community.
3. The CSEC Field Based Project aims to test an adapted evidence-based practice (TF-CBT) to determine if the adaptation delivered within a coordinated specialty care model will, as a whole, improve outcomes for this vulnerable population.

Learning Goals

CSEC Field Based Project will contribute new knowledge on the best service delivery approach for working with CSEC youth and contribute to knowledge on new methods to apply TF-CBT for this vulnerable, hard to reach population.

Goal 1: Effectiveness of adapting TF-CBT for a commercially sexually exploited youth population to understand if this adapted approach delivered in a field based Specialty Care Team model increases engagement, retention, and outcomes.

Goal 2: Effectiveness of a coordinated Specialty Care Team approach with a CSEC team including the use of TAY Peer Specialist and Parent Partners to increase engagement and retention in services and improve outcomes.

Learning Goal 1

Effectiveness of adapting TF-CBT for a commercially sexually exploited youth population

Does this adapted TF-CBT approach delivered in a Specialty Care Team model increase engagement, retention, and outcomes?

- ✓ Pre to Post surveys to measure trauma symptoms
- ✓ Pre to Post Surveys to measure general mental well-being and functioning (YOQ)
- ✓ Functional outcomes will also be collected such as participation in school or work, reduced running away and placement challenges, and recidivism rates for youth returning to trafficking.

Learning Goal 2

Effectiveness of a coordinated field based Specialty Care Team approach with a CSEC team including the use of TAY Peer Specialist and Parent Partners

Does utilizing TAY Peers and Parent Partners increase the likelihood that CSEC youth will engage and continue in Services and improve outcomes ?

- ✓ Measurement will include retention and completion of treatment services
- ✓ Structured interviews for Family/Caregiver relationships
- ✓ Structured interviews on youths experience with TAY Peers and Parent Partners

Proposed Motion

- **Proposed Motion:** The MHISOAC approves Riverside County's Innovation Project, as follows:
- **Name:** Commercially Sexually Exploited Children Mobile Response
- **Amount:** \$6,252,476
- **Project Length:** Five (5) Years



***Innovation –
The Verily View***

**Thomas R Insel, MD
Verily Life Sciences**

Feb 23, 2017

Our Problem Statement

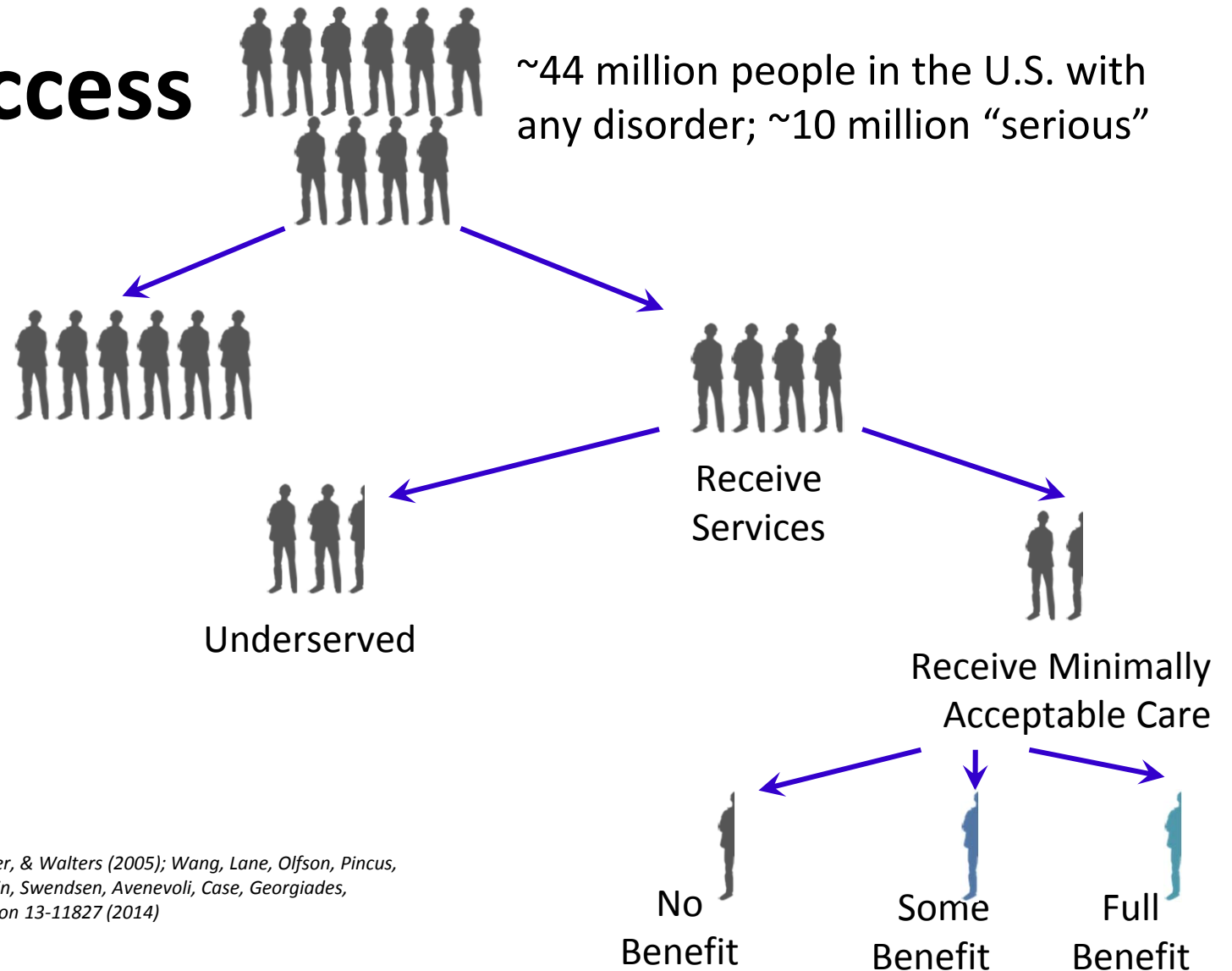
Mental illnesses occur more frequently, affect more people, require more prolonged treatment, cause more suffering by the families of the afflicted, waste more of our human resources, and constitute more financial drain upon both the public treasury and the personal finances of the individual families than any other single condition.

JFK
Feb 5, 1963



Why Have We Failed to Bend the Curve?

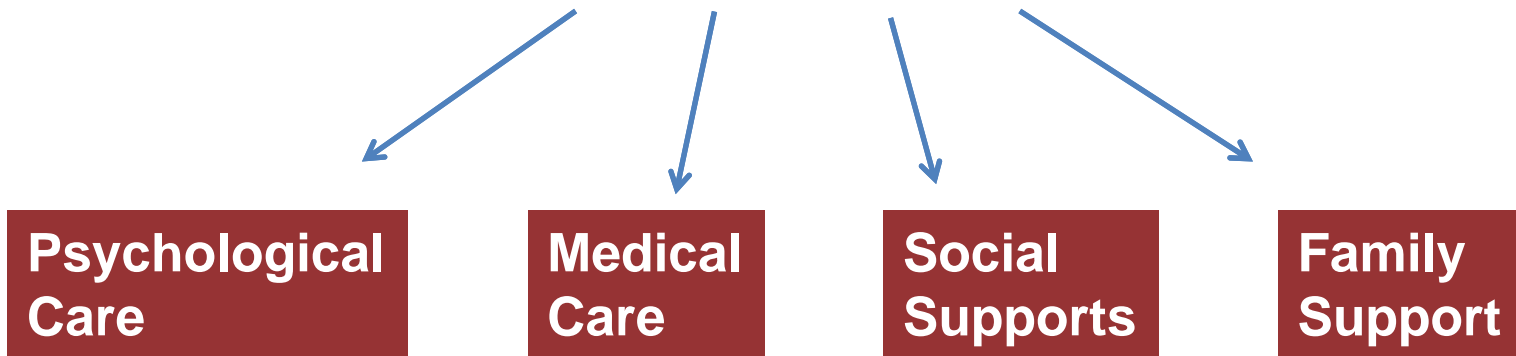
Lack of Access



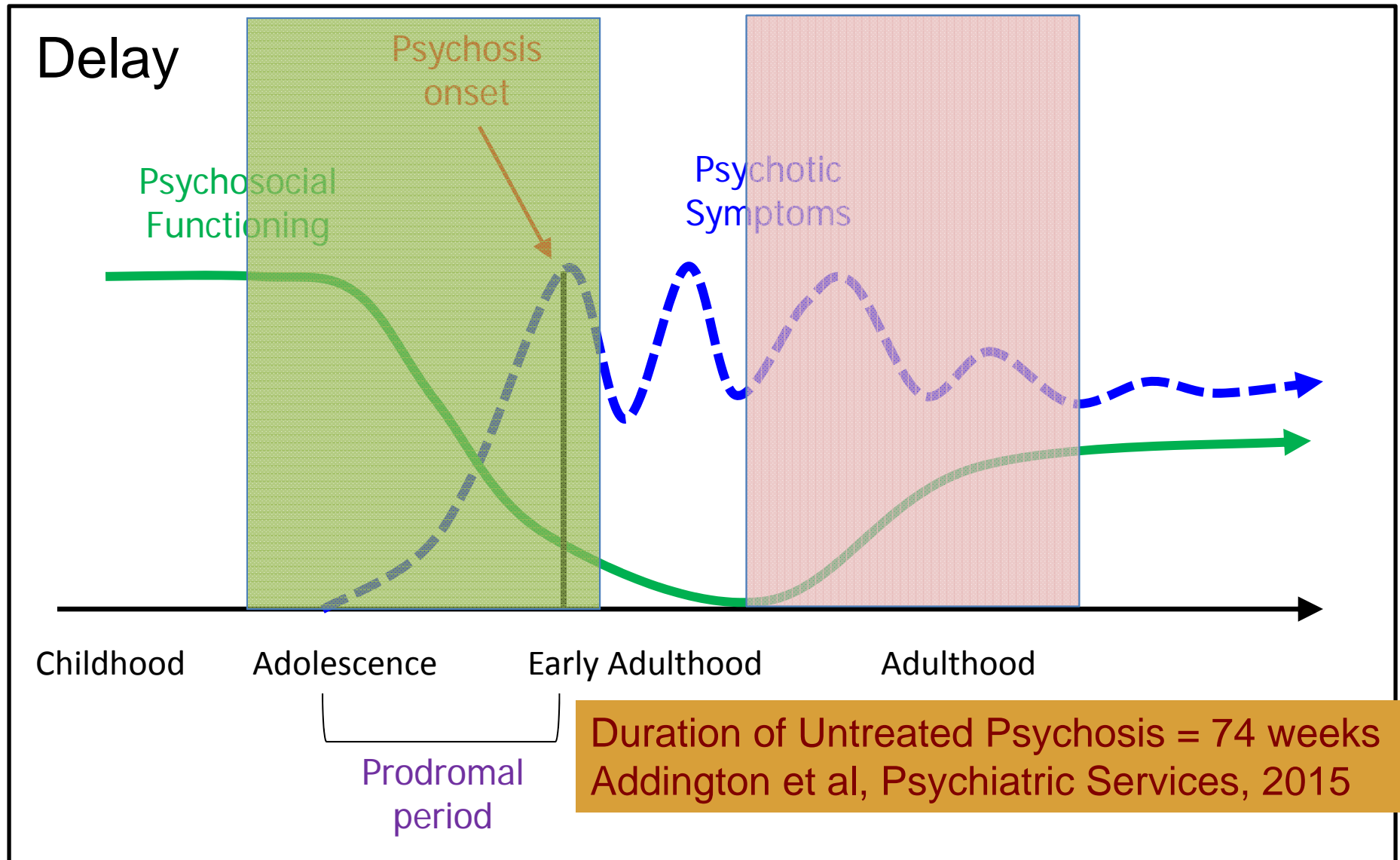
SOURCES: NSDUH (2013); Kessler, Chiu, Demler, & Walters (2005); Wang, Lane, Olfson, Pincus, Wells, Kessler (2005); Merikangas, He, Burstein, Swendsen, Avenevoli, Case, Georgiades, Heaton, Swanson, Olfson (2011), SSA Publication 13-11827 (2014)

Why Have We Failed to Bend the Curve?

Fragmentation



Why Have We Failed to Bend the Curve?



Why Have We Failed to Bend the Curve?

Not only quantity but quality!

Lack of measurement based care

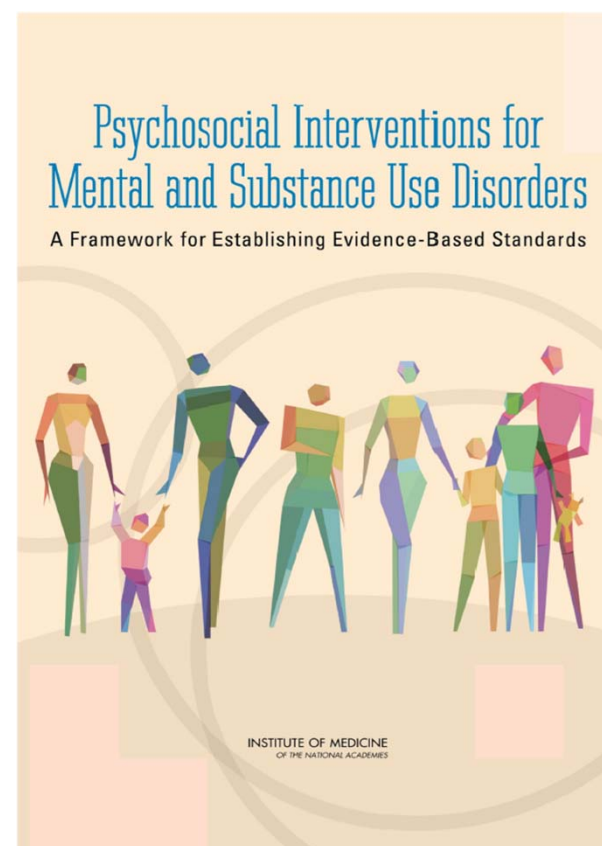
“17.9% of psychiatrists and 11.1% of psychologists routinely administer sx rating scales to their patients. On the basis of clinical judgment alone, mental health providers detect deterioration for only 21.4% of their patients who experience increased symptom severity.”

Fortney JC et al, Psych Serv, 2016

Lack of training

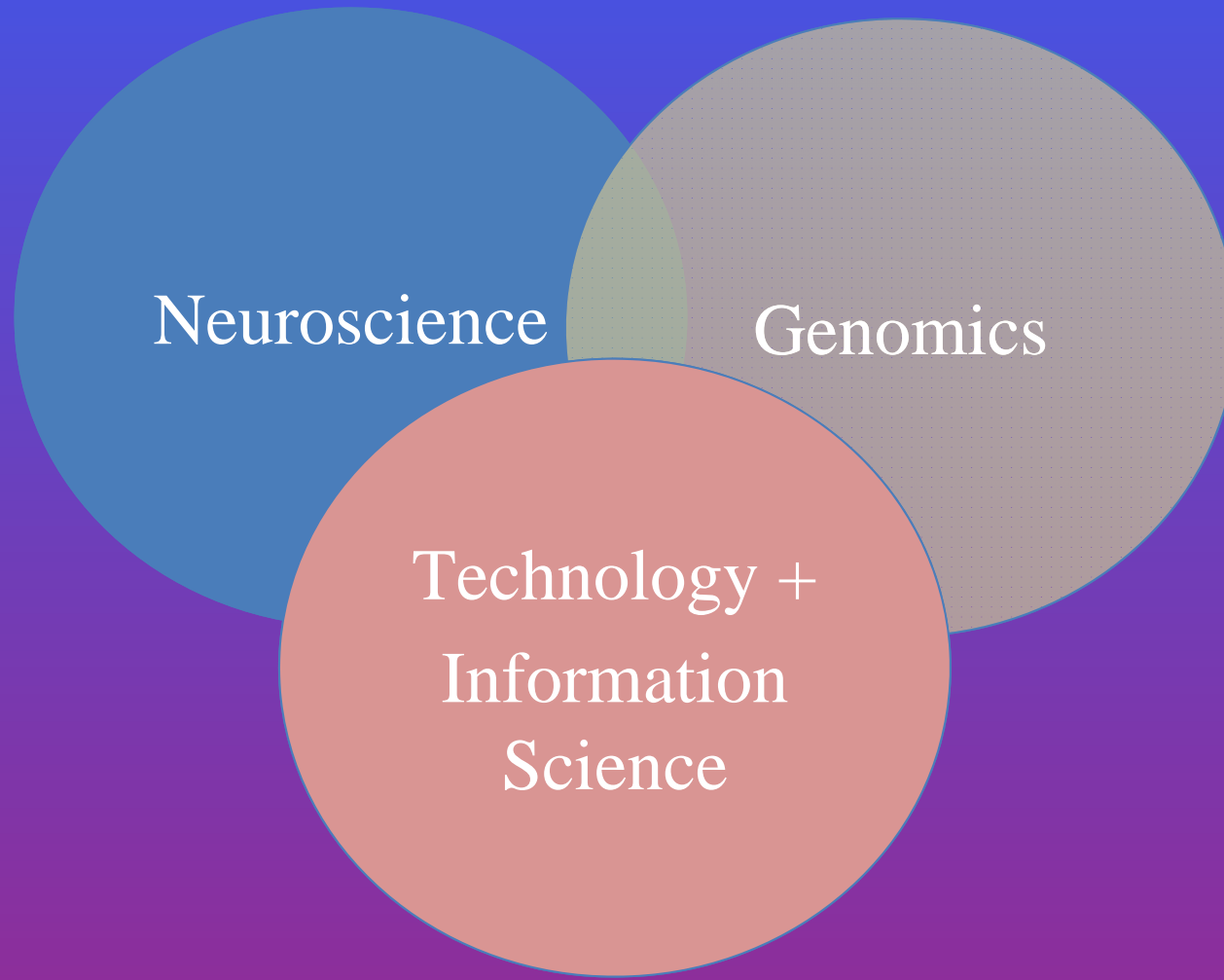
60% of mental health workforce receive NO training in any evidence-based psychosocial treatment

Weissman MM et al Arch Gen Psych, 2006



**Treatment depends on the provider's preference
not the consumer's needs.**

Three Concurrent Revolutions



Tom Goodwin, Tech Crunch, 2015

“Uber, the world’s largest taxi company, owns no vehicles.

Facebook, the world’s most popular media owner, creates no content.

Alibaba, the most valuable retailer, has no inventory.

And Airbnb, the world’s largest accommodation provider, owns no real estate.

Something interesting is happening.”

Google's mission is
to organize the world's
information and
make it universally
accessible and useful.

The Technology Revolution

	2006	2016
Smartphones	64M	2B
Facebook users	12M	1.8B
Google searches	250M/day	> 3.5B/day
Apps in App Store	<15K	2M
Analytics	Hypothesis testing stats	Machine Learning

Using Software to Bend the Curve

Access	Apps, online platforms
Fragmentation	Coordination, continuity
Delay	Early, continuous detection
Poor Quality	Evidence-based interventions
Workforce	Telehealth, training
Stigma	Education, anonymity

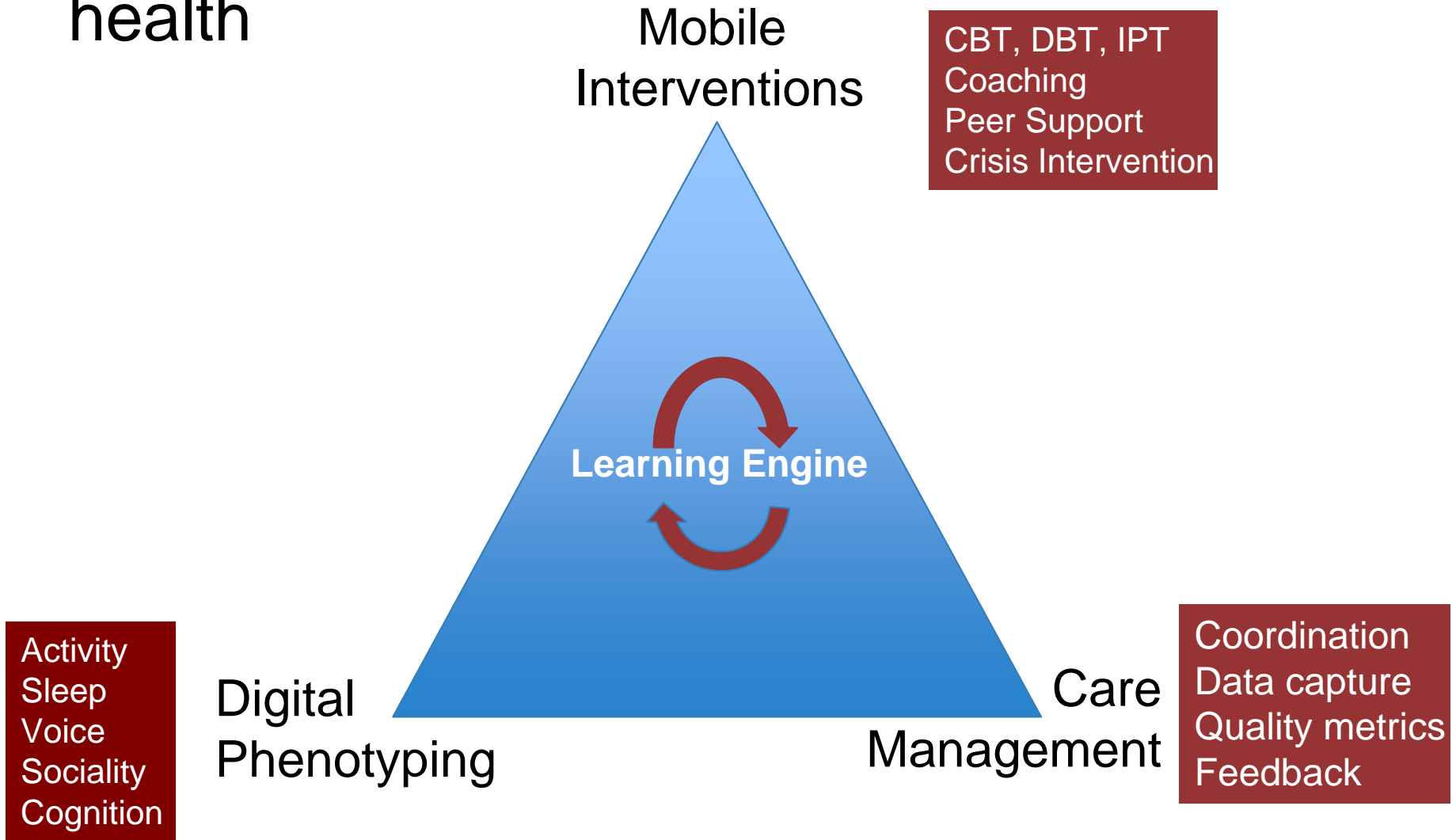
**Subjective + objective markers of:
mood, behavior, cognition**

Slide 11

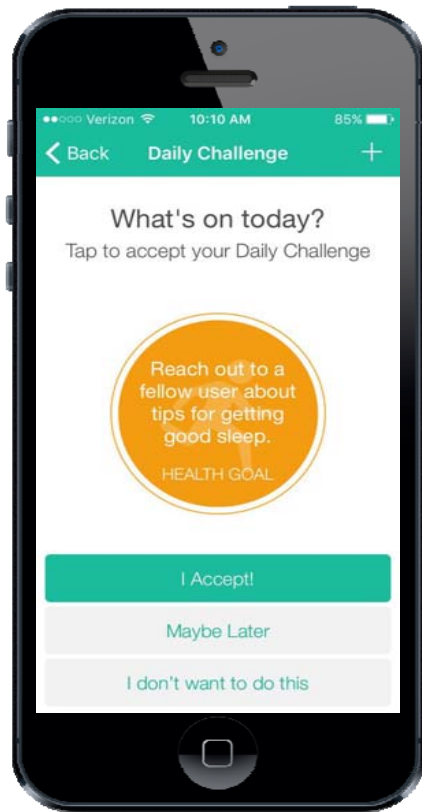
MOU [3]1 Microsoft Office User, 2/1/2017

MOU [4]1 Made some tweaks
Microsoft Office User, 2/1/2017

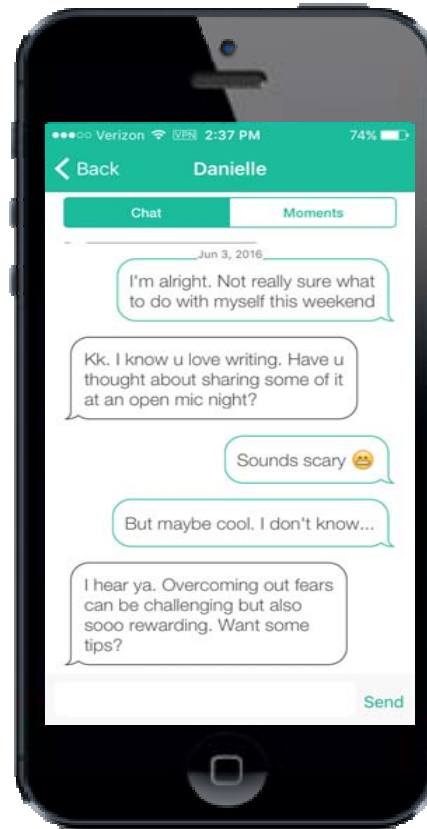
Closed loop learning systems for mental health



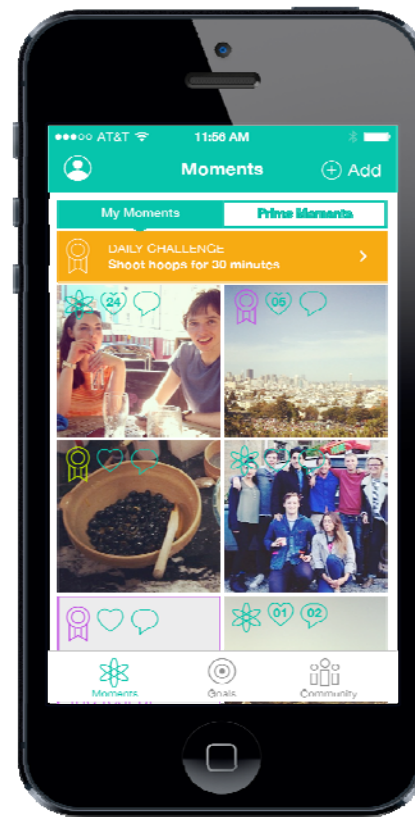
PRIME: addressing access, delay, quality, workforce and stigma



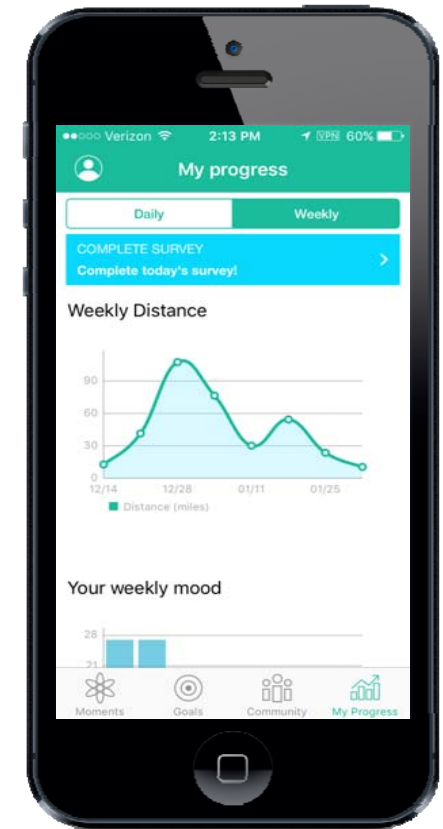
Goal setting to motivate healthy behavior



Text-based coaching with mental health professionals



Social networking to encourage engagement



Tracking activity level and outcomes that consumers care about

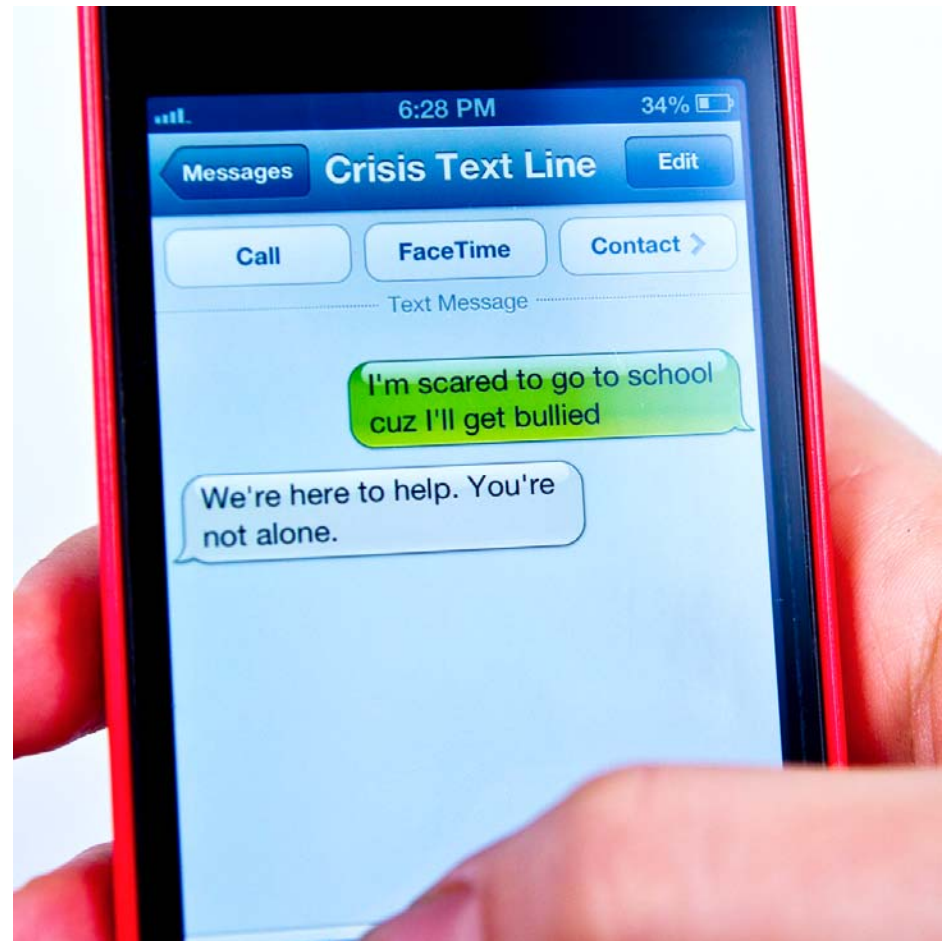
(Courtesy of Danielle Schlosser, UCSF)

CRISIS TEXT LINE |

**Anyone in the
U.S. can text
741741**

**Immediate
access to
trained crisis
counselors**

**Users may get
support for
FREE 24/7**



CRISIS TEXT LINE |

™

31M

messages since 2013

75% below age 25

1/3 of messages -- depression and suicide

19% from 10% lowest income zipcodes

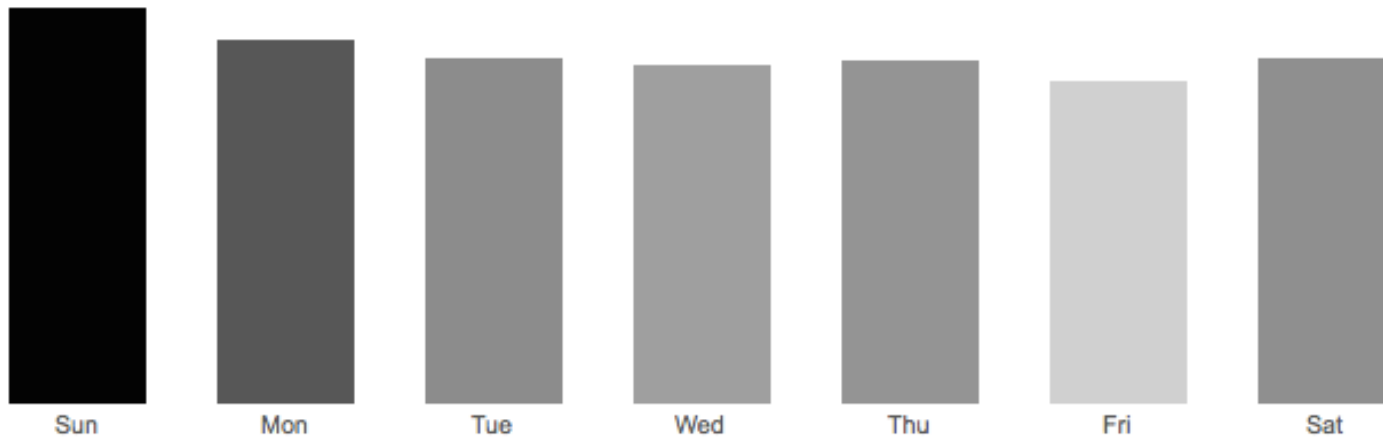
9% Native American; 14% Hispanic

> 3K active rescues

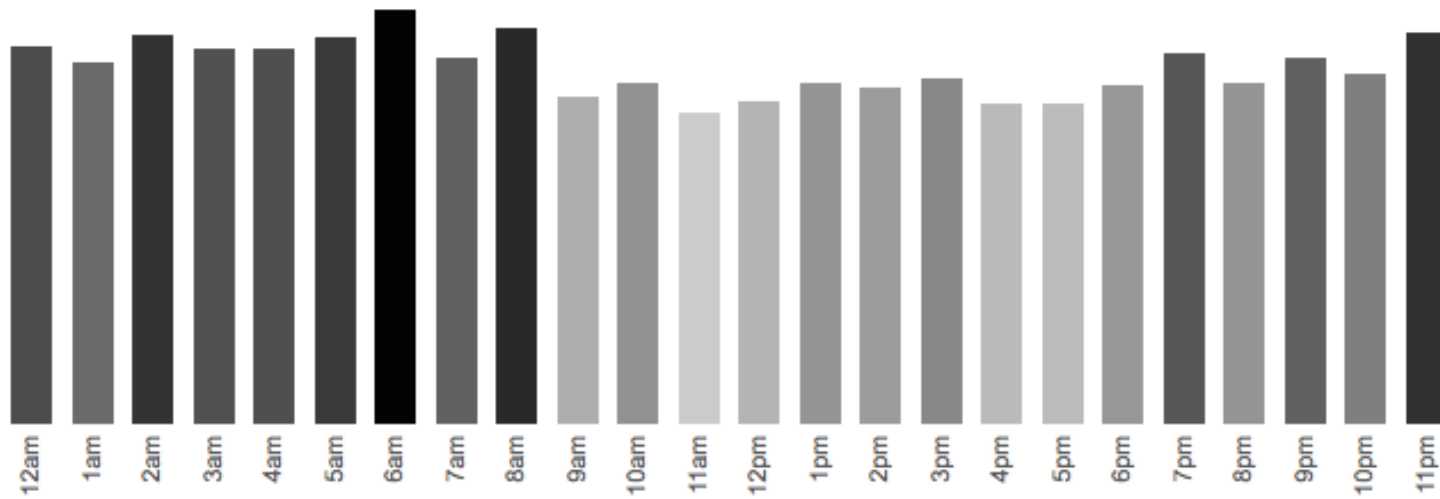
Texters in CA experiencing **Suicidal Thoughts** also experience these issues in the same conversation

Anxiety	17%	Lgbtq Issues	3%
Bereavement	2%	Physical Abuse	5%
Bullying	4%	Relationships	15%
Depression	47%	School Problems	3%
Eating Disorder	2%	Self Harm	17%
Family Issues	23%	Sexual Abuse	2%
Friend Issues	10%	Stress	20%
Health Concerns	2%	Substance Abuse	2%
Isolation	13%	Suicidal Thoughts	100%

Texters in CA experiencing Suicidal Thoughts over the week



Texters in CA experiencing Suicidal Thoughts over the day



7 Cups

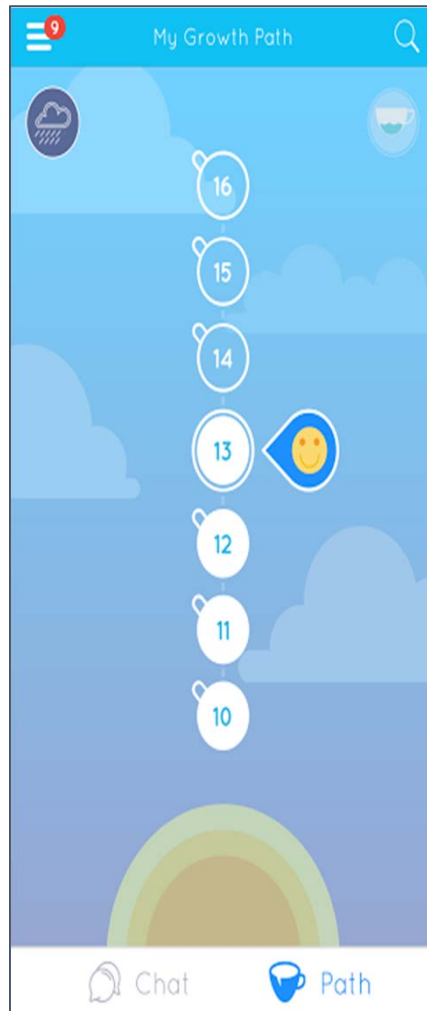


Connected Care

Growth Paths or Integrated Treatment Plans

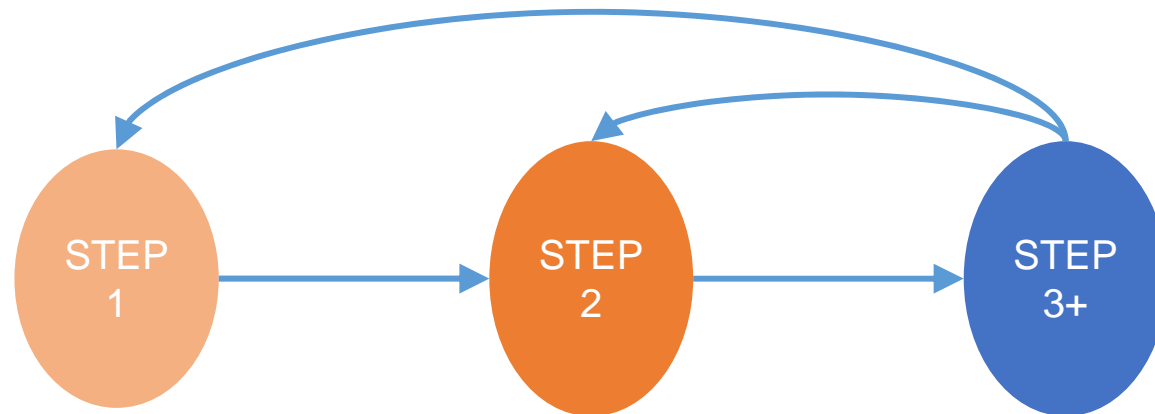


31 growth paths based on empirically supported treatment protocols. Paths are recommended after users have selected an issue and/or completed the DASS-21 wellness test.



Users upgrade to unlock these paths.

Treatment & Outcome Research via Growth Paths



- Baseline Assessment with the DASS-21 (Depression, Anxiety, Stress Scale)
- Initial Diagnosis

- Emotional Support from Listeners or Therapists
- Therapeutic Activities via the Growth Path

- Reassess with DASS-21 every 20 Steps on Growth Path
- Track Individual and Group Outcomes
- Adapt treatment

7 Cups is 10X better and accelerating



7 Cups	Traditional Mental Health
On Demand	Weeks to Months to be Seen
Free or Affordable	\$100+ for single 50 minute session
No Stigma – anonymous, no fear of judgment	Stigma – fear of being judged
Community – Key part of Treatment	No Community – only relationship is with provider
Unlimited support – available 24x7	Limited Support – 50 minutes/week
Convenient – app or web; provider in your pocket	Inconvenient – Drive to office
Support in 140 Languages and 189 Countries	Support primarily in English and Developed Countries
Task Shifting + Stepped Care	Very Little Task Shifting and Stepped Care
Advanced Research Capabilities and Outcome Tracking	Limited Research Capabilities and Outcome Tracking

19% Growth Month Over Month for 36 Months



Location - Analytics | Audience Overview - Anal... | 7cups.com | All Web Site Data

Search reports and help

CUSTOMIZATION

Reports

- REAL-TIME
- AUDIENCE
 - Overview
 - Active Users
 - Cohort Analysis BETA
 - User Explorer
 - Demographics
 - Interests
 - Geo
 - Language
 - Location**
 - Behavior
 - Technology
 - Mobile
 - Custom
 - Benchmarking
- ADMIN

Primary Dimension: City | Metro | Other

Secondary dimension

City	Acquisition			Behavior			Conversions		
	Sessions	% New Sessions	New Users	Bounce Rate	Pages / Session	Avg. Session Duration	Connect Now Button Click (Goal 7 Conversion Rate)	Connect Now Button Click (Goal 7 Completions)	Connect Now Button Click (Goal 7 Value)
	789,482 <small>% of Total: 5.72% (13,806,823)</small>	58.32% <small>Avg for View: 53.22% (9.60%)</small>	460,437 <small>% of Total: 6.27% (7,347,348)</small>	50.32% <small>Avg for View: 45.19% (11.36%)</small>	6.07 <small>Avg for View: 6.76 (-10.15%)</small>	00:11:55 <small>Avg for View: 00:14:37 (-18.47%)</small>	2.75% <small>Avg for View: 2.83% (-2.79%)</small>	21,727 <small>% of Total: 5.56% (390,880)</small>	\$0.00 <small>% of Total: 0.00% (\$0.00)</small>
1. Los Angeles	143,793 (18.21%)	60.51%	87,015 (18.90%)	56.66%	5.10	00:10:01	2.44%	3,515 (16.18%)	\$0.00 (0.00%)
2. San Francisco	70,987 (8.99%)	61.03%	43,326 (9.41%)	56.38%	5.10	00:09:22	1.99%	1,412 (6.50%)	\$0.00 (0.00%)
3. San Diego	36,549 (4.63%)	65.06%	23,777 (5.16%)	55.80%	5.92	00:10:11	2.78%	1,016 (4.68%)	\$0.00 (0.00%)
4. San Jose	22,947 (2.91%)	60.78%	13,948 (3.03%)	50.29%	6.09	00:13:13	3.67%	842 (3.88%)	\$0.00 (0.00%)
5. Sacramento	16,404 (2.08%)	56.49%	9,266 (2.01%)	51.85%	5.74	00:13:27	2.88%	472 (2.17%)	\$0.00 (0.00%)
6. Irvine	13,578 (1.72%)	44.37%	6,024 (1.31%)	38.72%	3.62	00:07:01	2.21%	300 (1.38%)	\$0.00 (0.00%)
7. Riverside	9,685 (1.23%)	53.71%	5,202 (1.13%)	49.00%	6.67	00:13:06	2.93%	284 (1.31%)	\$0.00 (0.00%)
8. Fresno	9,561 (1.21%)	50.67%	4,845 (1.05%)	44.24%	5.66	00:14:28	1.96%	187 (0.86%)	\$0.00 (0.00%)
9. Anaheim	9,204 (1.17%)	47.61%	4,382 (0.95%)	46.84%	7.76	00:13:05	2.21%	203 (0.93%)	\$0.00 (0.00%)
10. Fremont	8,254 (1.05%)	55.56%	4,586 (1.00%)	30.95%	9.48	00:15:26	2.81%	232 (1.07%)	\$0.00 (0.00%)

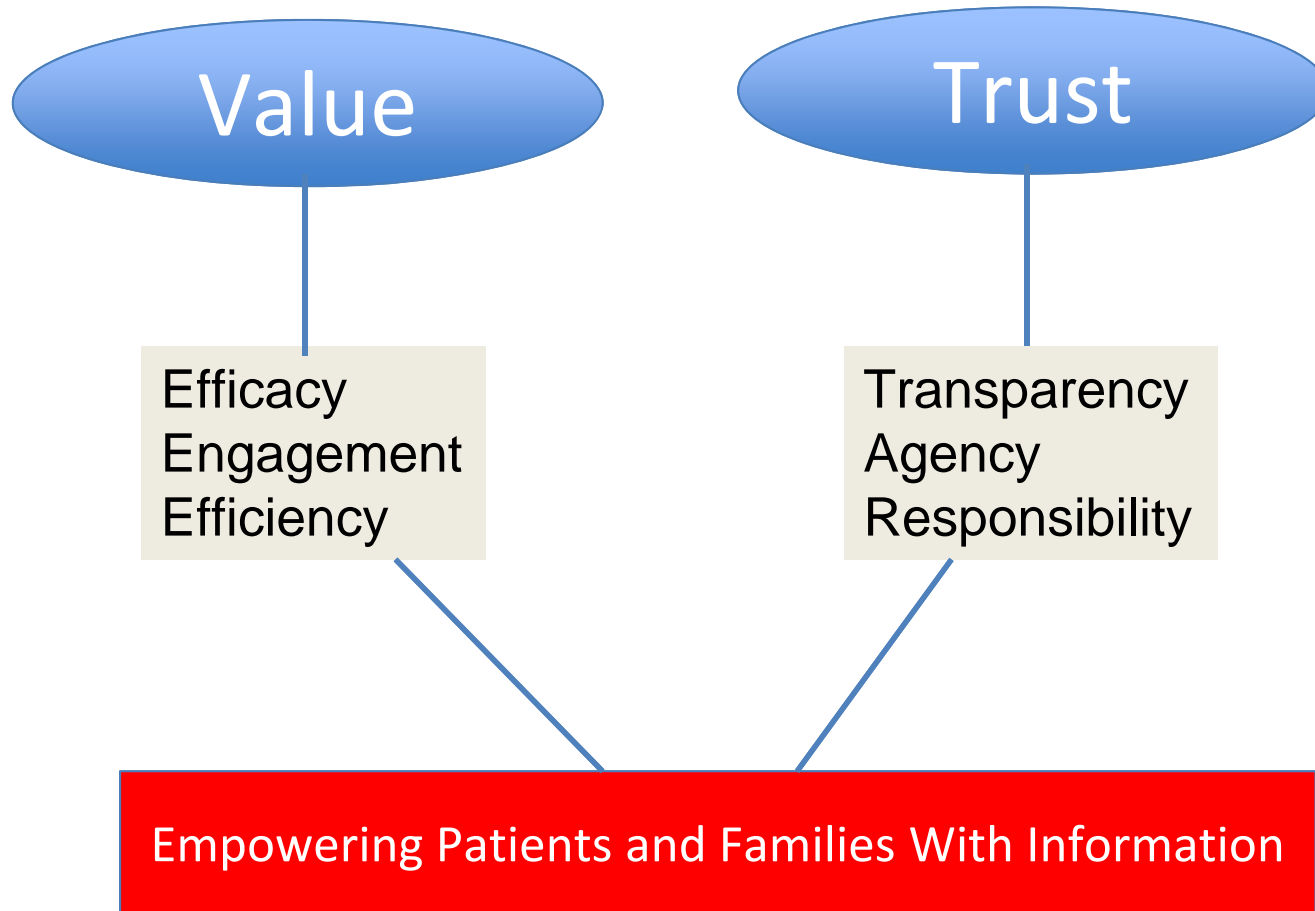
Show rows: 10 | Go to: 1 | 1 - 10 of 805

This report was generated on 2/15/17 at 5:38:42 PM - Refresh Report

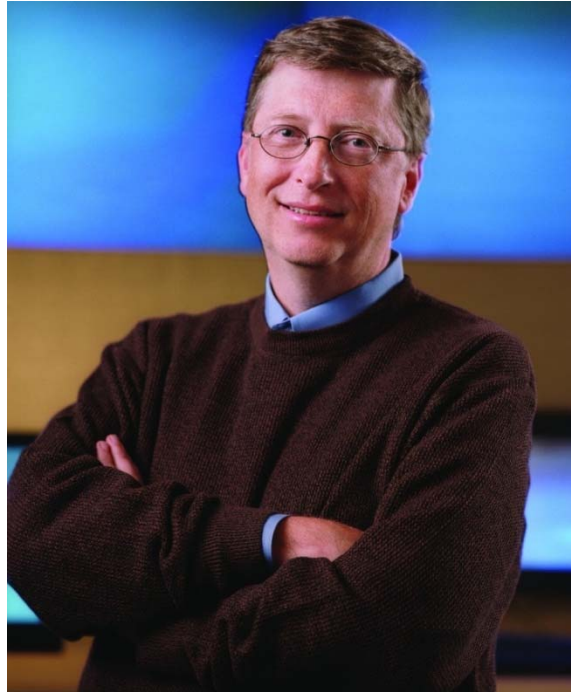
© 2017 Google | Analytics Home | Terms of Service | Privacy Policy | Send Feedback

5:39 PM 2/15/2017

The Opportunity and Challenge of the Technology Revolution



Finally



“We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten.”

--Bill Gates Jr.

Thank you !



*Organizing the world's **health** information and
making it universally accessible and useful*

verily