

Making Apps and Web-based Tools Part of Your Integrated Behavioral Health Team

August 21, 2014





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(webinar moderator) SAMHSA-HRSA Center for Integrated Health Solutions, Associate National Council for Behavioral Health

Rose Felipe







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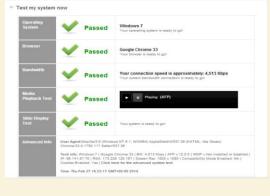
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Before We Begin

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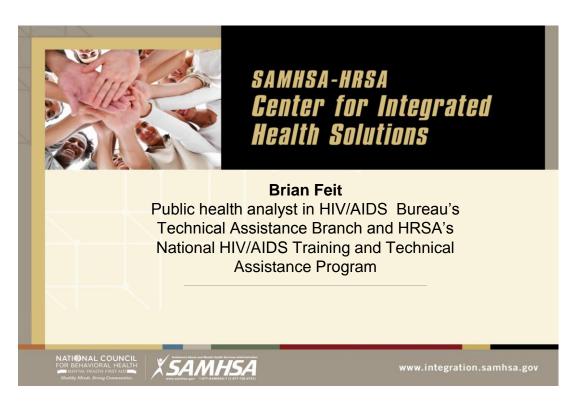
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Clinical applications for technology tools in primary care settings: Integrating Seva

Chantelle Thomas, PhD
Behavioral Health Consultant, Health Psychologist
Access Community Health Care Center, Clinical Assistant Professor,
Department of Family Medicine,
University of Wisconsin

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Chantelle Thomas, PhD Behavioral Health Consultant, Access Community Health Center, Madison, WI

Dr. Chantelle Thomas has been employed with Access Community Health Care Centers, a Federally Qualified Health Center, as a Behavioral Health Consultant for over five years. She is passionate about working with the under-served and is tasked with the management of specialty populations within the organization. She has been the lead consultant in the Health Promotions Clinic at Access, developed for the purpose of treating dual diagnosis individuals within the primary care setting. Dr. Thomas has over twelve years of experience working with dual diagnosis populations in both residential and outpatient treatment settings. She also provides training for medical residents through the Department of Family Medicine at the University of Wisconsin Hospital & Clinics in Madison, Wisconsin.





Objectives

- Discuss organization setting & infrastructure
- · Describe the role of integrated behavioral health staff
- Discuss challenges inherent to treating dual diagnosis in primary care setting
- Describe SEVA system, relevance, recruitment, & integration into clinic work flow
- Explore Lessons learned

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Clinic Statistics

- Approximately 80,000 patient visits annually ~10,000 BHC
- Last year we served 23,000 residents in Dane County
- Population based care model
- Four full-time psychologist, 2 part-time psychologists, 2 fulltime social workers, 1 part-time SW, 2 post doctoral fellows, & range of interns/practicum students
- · Six visits scheduled daily per clinic- 60-70% are handoffs
- Visit lengths range from 15 to 25 minutes

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Behavioral Health Consultants (BHCs)

- We are not a substance abuse treatment facility
- Staff are trained as generalists (pediatrics through geriatrics)
- Staff training: behavioral analysis, CBT, behavior modification, motivational interviewing
- Internal Training semi-annual training seminars
- Health Promotions Clinic for more complex patients
- Awareness of referrals for more specialty Alcohol and Other Drug Abuse (AODA) community treatment options: residential/outpatient treatment



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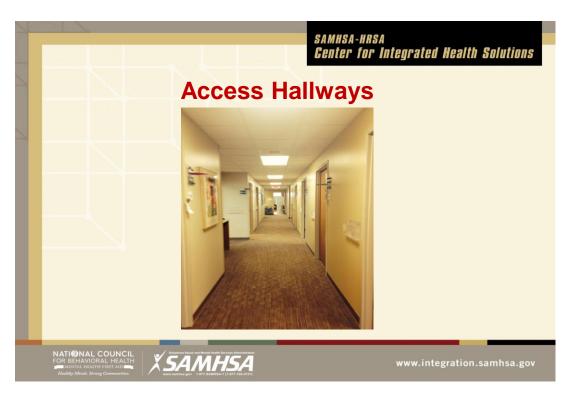
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Role of BHC

- Assess severity of the substance use disorder
- What level of care is appropriate Can this patient be safely managed in primary care?
- What are the treatment options based on insurance?
- What is the patient motivated for or willing to consider in terms of change? Non judgmental present-focused motivational enhancement.
- What co-morbid mental health diagnosis may be impacting patient's ability seek out or engage with treatment



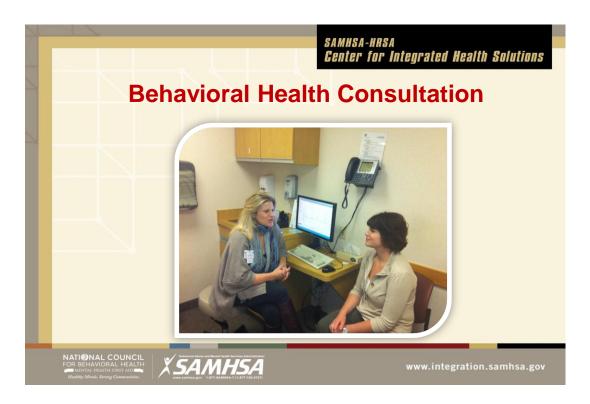


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Electronic Medical Record

- All BHC visits (includes psychiatric consult visits) are visible to all providers within the University of Wisconsin System
- Includes UW Hospital, UW Urgent Cares, Physical Therapy, Occupational Therapy, Pain Clinics, UW Specialty Clinics (Medical specialty), Bariatric, Neuropsychology, Health Psychology, AODA treatment, Nutrition, Dietician
- Psychiatric and psychotherapy notes from outside agencies within the UW system require "break the glass" function
- Informed consent acquired prior to meeting with BHC





Why do we need more?

- Limited community treatment options are further limited by insurance
- Nature of patient population: high levels of psychosocial stress, practical/financial barriers, severity of mental health symptoms, and isolation
- Available treatment options require patients consistently follow through or be comfortable with group modalities.
- Population based care requires more sophisticated outlets for case management

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SEVA ~ selfless caring

- Smart phone application developed by University of Wisconsin, School of Engineering, Center for Health Enhancement Studies
- Utilizes innovative technology to assist substance abusing patients across three federally qualified health care centers (Montana, Wisconsin, & New York)
- Smart phone application previously used for patients following residential treatment now being implemented across the country
- Provides psycho-education skills development pertaining to relapse prevention, cognitive behavioral therapy, & harm reduction – (TES)
- Creates a virtual online recovery community for patients

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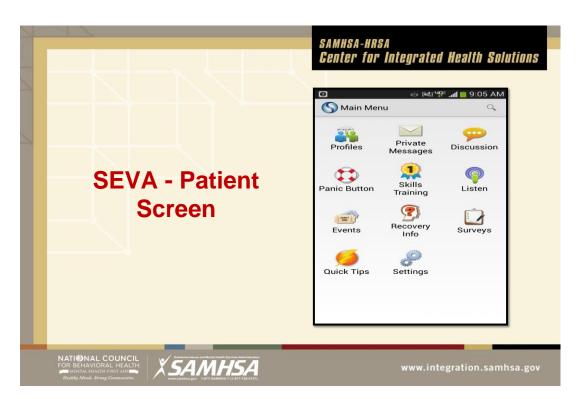
Therapeutic Education System - TES

- Self-directed, web-based behavioral intervention for substance use disorders (licensed by HealthSim, LLC)
- · Built into the SEVA application (skills training)
- Addresses broad array of skills and behavior designed to help substance abusing individuals stop their substance use, gain life skills, and establish new, healthy, and adaptive behaviors

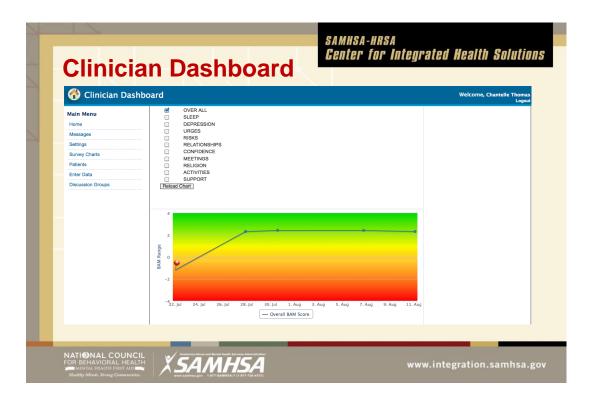
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Brief Addiction Monitor Scale

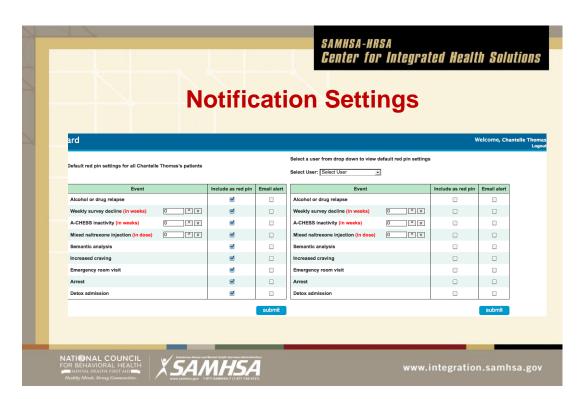
- Philadelphia Veterans' Administration Medical Center (Cacciola, Alterman, DePhilippis, Drapkin, Valadez, Fala, Oslin, & McKay, 2012)
- Risk Factors: Scale is composed of Cravings, Physical Health, Sleep, Mood, Risky situations, Family/social problems
- Protective Factors: Scale is composed of Self-efficacy, Self-help behaviors, Religion/spirituality, Work/school participation, Adequate Income, Sober support
- Prediction for relapse risk is calculated based on the ratio of risk to protective factors

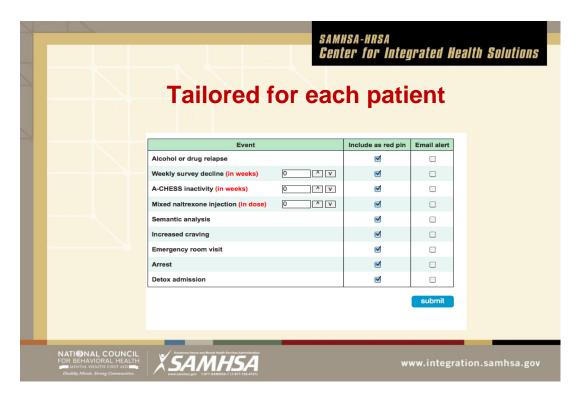
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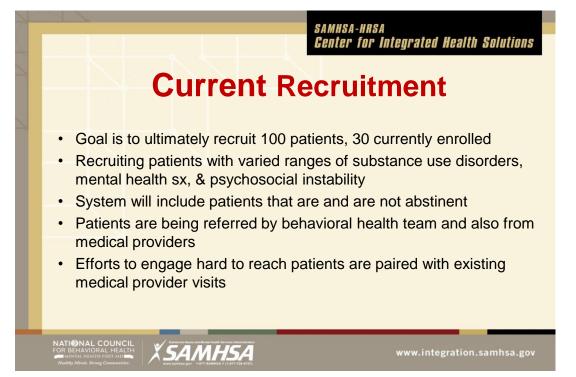
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Tracking & Clinic Workflow

- · Keeping provider efficiency at the forefront
- · A tool creating more work for providers ceases to be useful
- Important to consider how a technology tool can help patients while helping providers to use their time with patients more efficiently
- Patient charts and relevant SEVA information is reviewed prior to meeting with patients on the day of clinic
- System typically accessed by providers to: 1) gather relevant clinical information and/or 2) for case management

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Case Examples

- Several patients with high risk factors can be tracked even when not presenting or directly communicating with the clinic or providers
- Frequent relapsing can be monitored for patients who on medications that carry implications for risk
- Patients with severe substance use disorders & chaotic interpersonal circumstances are found to more frequently use the system (vs. stable patients)

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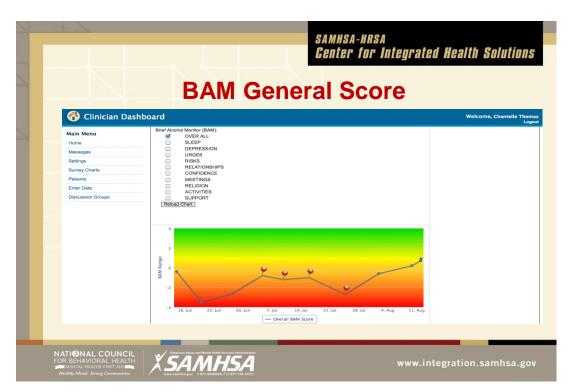
Example #1

- 43 year old Caucasian female
- Bipolar I Disorder
- Severe substance use disorder crack and marijuana dependence
- Severe complex trauma history with active Post Traumatic Stress Disorder (PTSD) symptoms
- Unemployed reliant on others for financial support
- Unable to follow through with treatment outside clinic despite multiple referral attempts

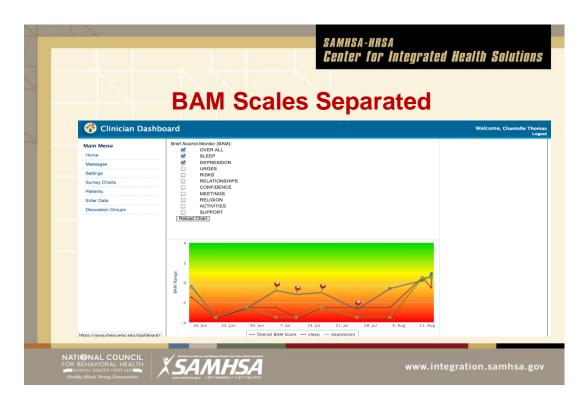
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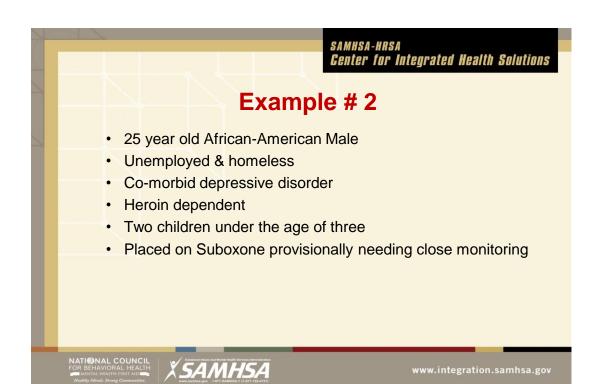
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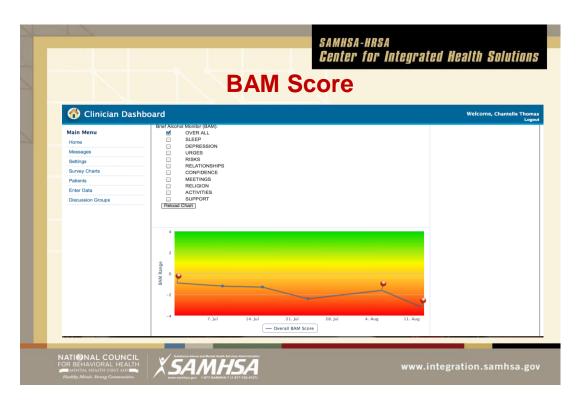


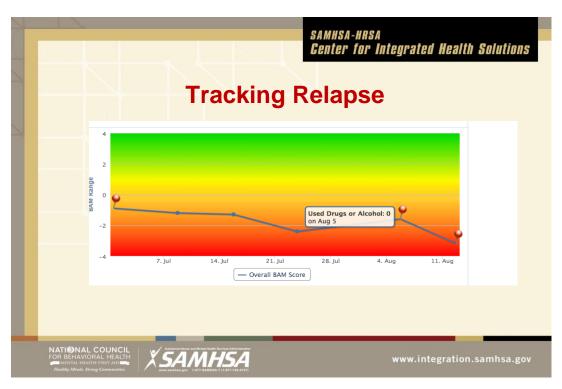


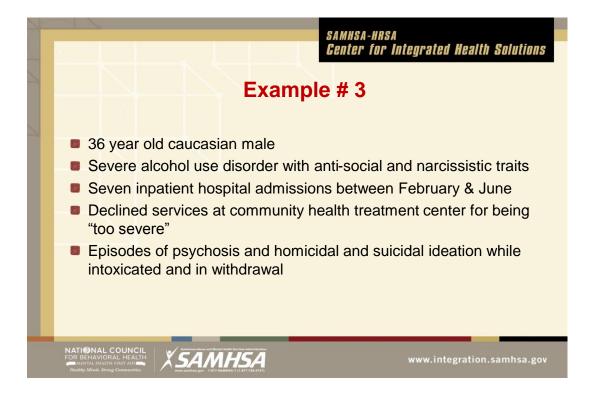
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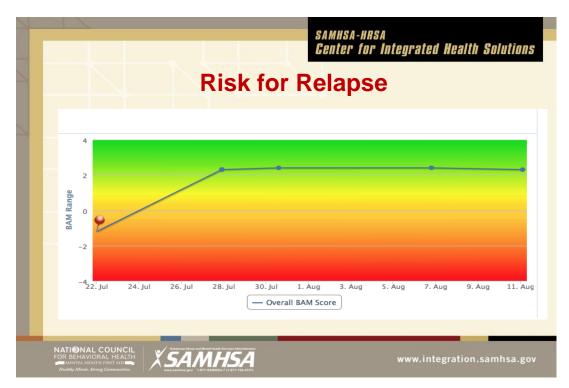




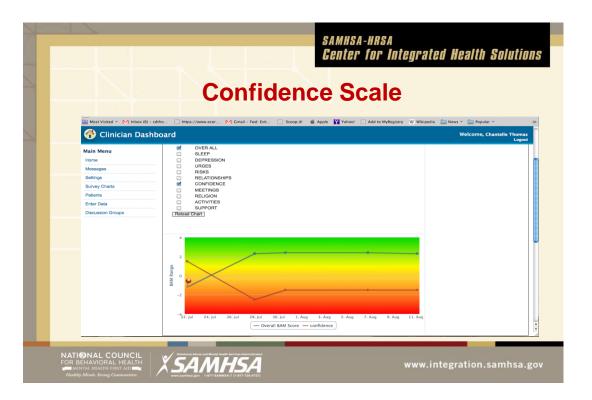


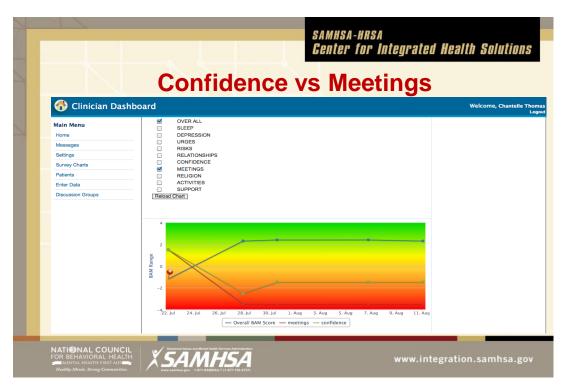


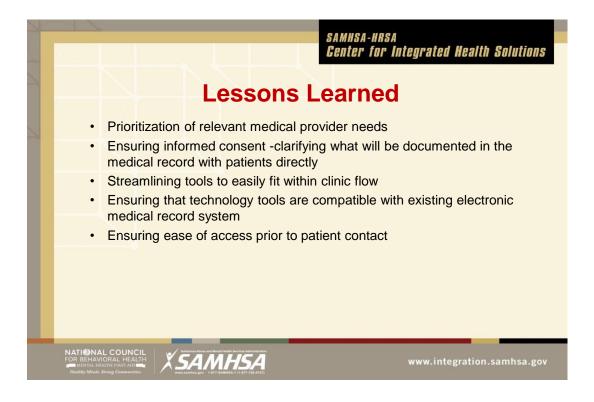




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Technology-based Behavioral Health Therapeutic Tools: Integration into Practice

Lisa A. Marsch, PhD,

Director, Dartmouth Center for Technology and Behavioral Health Director, Dartmouth Psychiatric Research Center Geisel School of Medicine at Dartmouth College HealthSim, LLC

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Lisa A. Marsch, Ph.D.

Director, Center for Technology and Behavioral Health, Director, Dartmouth Psychiatric Research Center, Department of Psychiatry, Geisel School of Medicine at Dartmouth College The Center for Technology and Behavioral Health is a national P30 "Center of Excellence" supported by the National Institute on Drug Abuse (NIDA), composed of an interdisciplinary research and development group focused on the systematic application of state-of-the-science technologies to the delivery of substance abuse treatment and related behavioral health issues (including HIV prevention and mental health). Dr. Marsch has led a line of research focused on the development and evaluation of technology-based interventions targeting substance abuse treatment, as well as HIV prevention, mental health, and other areas of behavioral health. These technology-based therapeutic tools reflect an integration of science-based behavioral interventions with evidence-based informational technologies. This research has provided novel empirical information regarding the role that technology may play in improving the prevention and treatment of substance use disorders and other behavioral health issues by improving quality of care, access to care, and treatment outcomes, while reducing costs of care.

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Disclosure

 Affiliation with HealthSim, LLC, a small business that develops/deploys technology-based behavioral health tools

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Promise of Applying Technology to Behavioral Health

- The digital landscape of Internet and mobile technologies has transformed our society, (e.g., in finance, retail, travel, and social relations).
- Technologies can also enable new models of behavioral health care both within and outside of formal systems of care, while increasing the quality and reach of care and reducing costs.
- They may include applications for clinical populations (e.g., substance use, mental health, medication-taking) as well as prevention/wellness promotion (e.g., "quantified self movement" of behavioral tracking to increase self-knowledge via data)

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Promise of Applying Technology to Health

- Technology offers considerable promise for impacting the spectrum of health and wellness, ranging from assessment, prevention, treatment, recovery support, and care coordination
- Assessment and Monitoring Tools: increase standardization and accuracy of data collection, in a wide array of settings, in real time
- Interventions: e.g., prevention interventions; behavior therapies; self-learning and self- management tools (skills training, goal setting/tracking, behavior change)
- Therapeutic support for individuals, families, and clinicians
- Engage consumers and a care network of their choosing (e.g., decision support systems, social media)
- · Expand reach of clinicians

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Promise of Applying Technology to Health

- Reach: Offer great promise for enabling the widespread dissemination of evidence-based interventions targeting health behavior.
- Quality: Deliver care with fidelity, ensuring delivery of empiricallysupported care
- Personalization: Responsive to each individual's profile of needs, preferences, culture, level of cognitive functioning, etc.
- Engagement: Offer the potential to enable individuals (and optionally an extended support network) to play leading roles in their own care management.

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Promise of Applying Technology to Health

- Enable on-demand access to "just in time" therapeutic support via electronic devices, delivered anytime/anywhere
- Can prevent costly escalation of health-related problems and unnecessary healthcare utilization.
- Reduce stigma and barriers/disparities in access to care endemic to many traditional care models
- Increase service capacity of systems of care (ability to treat a much larger number of clients with the same number of clinicians)
- Considerable population-level significance due to the large unmet behavioral health needs

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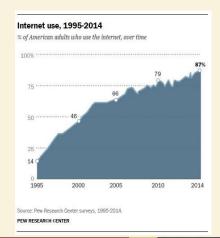
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Ubiquity of Technology

- Access to the Internet and mobile devices has been growing at extraordinary rates.
- Over 90% of individuals worldwide have access to mobile phone services, totaling about 6.8 billion mobile phone subscriptions worldwide.
- There are over 1.4 billion smartphones in the world, and smartphone access is expected to triple globally to 5.6 billion by 2019.
- Internet and mobile access is also high and growing among even the most traditionally underserved and vulnerable populations



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Promise of Applying Technology to Behavioral Health

Research has demonstrated that technology-based behavioral health tools (if developed well and in collaboration with the target audience):

- Can be highly useful and acceptable to diverse populations
- Have a large impact on health behavior and health outcomes
- Can produce outcomes comparable to, or better than, clinicians
- Increase quality, reach, and personalization of care
- · Can be cost-effective
- Can be responsive to individuals' health behavior trajectory over time

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Prevalence and Significance of Behavioral Health Disorders

Mental health and substance use disorders are common

- Approx. 1 in 4 to 1 in 5 adults are diagnosable with ≥1 mental health disorders
- Approx. 1 in 10 adults are diagnosable with ≥1 substance use disorders

Persons with behavioral health disorders are among the most frequent and costliest utilizers of health care services.

- Overall annual economic cost of mental health disorders estimated at over \$300 billion (increased from \$35 billion in 1996)
- WHO estimates that mental illness accounts for more disability in developed countries than other groups of illnesses (including cancer and heart disease)

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The Role of Behavioral Health in Chronic **Disease Management**

Behavioral Health Disorders are highly prevalent among Clinical Populations with **Chronic Physical Health Conditions**

(approx. 133 million Americans, accounting for over 75% of health care costs)

e.g., Persons with diabetes have 40-72% incidence of depression; 50% incidence anxiety

All chronic physical health conditions diseases require health behavior change, and the course and treatment of chronic diseases are frequently complicated by behavioral health problems

- Lower quality of life, poorer response to treatment, worse medical and psychiatric outcomes, higher mortality and higher costs of care.
- e.g., when depression co-occurs with diabetes, health care costs increase by 50-75%.



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The Role of Behavioral Health in Chronic Disease Management

- Under the Affordable Care Act (ACA), health care settings that have traditionally focused on physical health conditions (e.g., primary care) must now also offer care for substance use and mental health disorders.
- As a result of this confluence of factors, there is a tremendous and growing need to care for behavioral health care in health care settings that do not currently have sufficient capacity to meet this need.





Unprecedented Opportunities for Effective and Cost-effective Technology-based Solutions

- Technology offers great promise for helping to realize the integration of behavioral and physical health in a manner that increases quality of care while containing costs.
- Mobile communication technologies that embrace the behavioral dimensions of multiple chronic-condition care can dramatically decrease barriers to successful management.
- Health information and communication technologies may transform health care service delivery models.

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Implementation of Technology-based Therapeutic Tools

- Technology-based therapeutic tools may be deployed via numerous flexible models (e.g., treatment of substance use disorders).
- They may be used along with more traditional models of intervention delivery (e.g., offered as an adjunct to substance abuse treatment).
- In this clinician-extender" model, clinicians have the opportunity to extend their reach (e.g., supplement to clinician-delivered therapy, pharmacological treatments, etc.)





Implementation of Technology-based Therapeutic Tools

- Alternatively, these therapeutic tools may replace a portion of typical client-clinician interaction.
- This may allow a treatment program to treat more clients with the same number of clinicians and/or free-up clinicians to have more time to spend with clients in need of more intensive care.

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Implementation of Technology-based Therapeutic Tools

- These tools may also be offered as stand-alone interventions.
- This may be particularly relevant in rural or other settings where access to care may be limited or for individuals who do not wish to engage in traditional models of care.

(e.g., 90% of persons with substance use and/or mental health disorders are not in treatment)





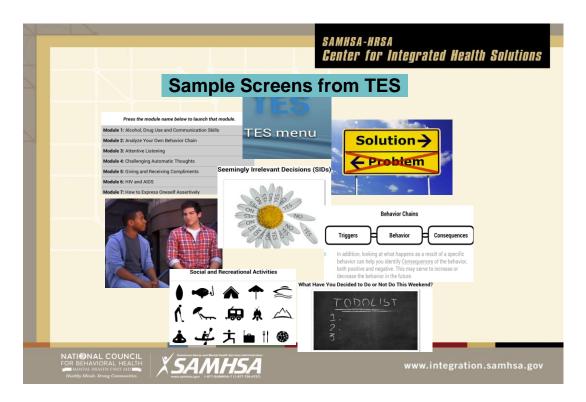
The Therapeutic Education System (TES) as an exemplar

- Therapeutic Education System (TES) is an interactive, behavioral therapy intervention for substance use disorders.
- Central focus on skills training (e.g., problem solving, coping, communication, decision-making, stress management, goal setting, managing negative moods) and maintaining healthy, reinforcing activities
- Employs informational technologies of demonstrated effectiveness
- Available on multiple platforms (including web-based desktop computers, Android smartphones, iPhones, iPads, etc.).

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Findings from Scientific Research

- When TES replaces clinician-delivered behavioral therapy, TES is as effective as evidence-based behavioral therapy delivered by therapists.
- When TES partially substitutes for, or is added as a supplement to, standard community-based behavioral treatment, it improves treatment outcomes (as much as doubles abstinence rates).
- TES has been shown to be cost-effective and reduce downstream medical costs.

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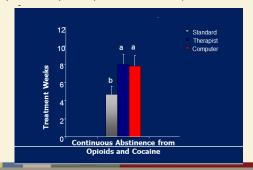
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Partial Replacement Model in Specialty Addiction Treatment - Efficacy Trial

- A NIDA-funded randomized, controlled trial (n=135)
- TES is as efficacious as comparable evidence-based, clinician-delivered therapy and better than standard treatment in promoting objectively-verified drug abstinence among individuals in outpatient buprenorphine treatment (Bickel, Marsch et al., 2008)



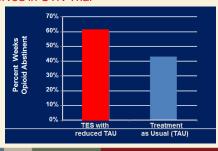
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Partial Replacement Model in Addiction Specialty Treatment – Effectiveness Trial

- NIDA-funded trial (n=160; 12 month evaluation) demonstrated TES enhances abstinence rates in outpatient addiction treatment when TES substitutes for part of standard counseling (Marsch, 2013)
- A similar effect observed in CTN Trial



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Partial Replacement Model in Addiction Specialty Treatment – Effectiveness Trial

- Data from the same trial showed that participants with low cognitive functioning, high anxiety, high ambivalence about treatment and heavy alcohol use at treatment entry had better outcomes when receiving TES as part of treatment vs. standard treatment.
- Technology-based interventions may be useful in minimizing the impact of specific risk factors on treatment outcome.

(Acosta, Marsch et al., 2012; Kim et al., Under Review)





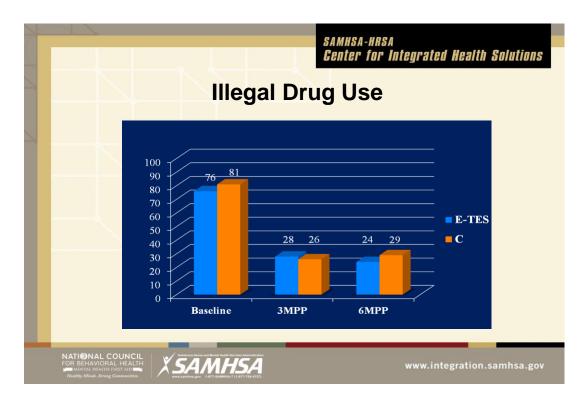
Multi-Site Evaluation of TES in prisons: Comparative Effectiveness

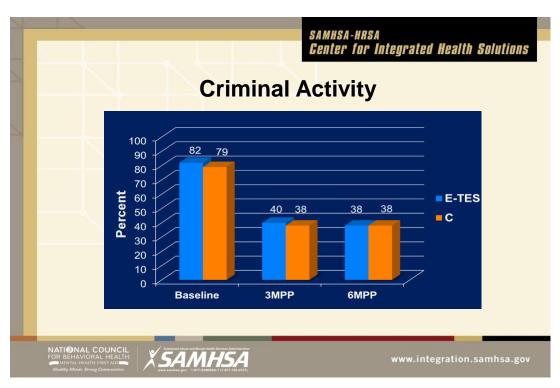
- Employed random assignment of male and female inmates with substance use disorders (N=513) to (E) TES (N=258), or (C) Clinician-Delivered Care (N=255) across 10 sites in 4 research centers linked to the NIDA-funded CJDATS network (in CO, WA, PA and KY).
- The prospective, longitudinal study design consisted of three assessment points —baseline and 3- and 6- months post prison release.

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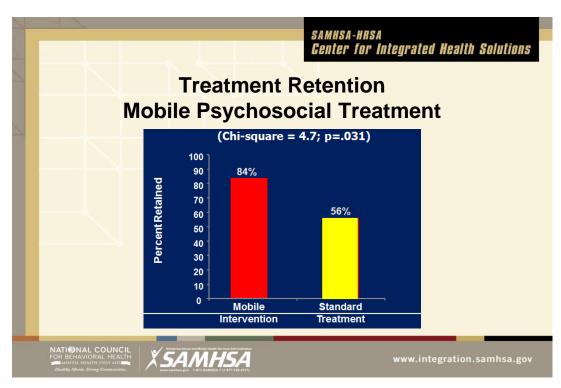
Example of a Mobile Psychosocial Intervention as an Adjunct to Care

- Random assignment of 50 new intakes in outpatient addiction treatment to:

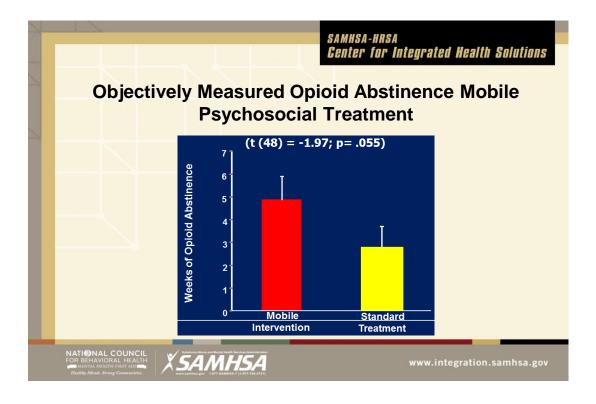
 (1) standard care or (2) mobile phone/web-based psychosocial treatment for 12 weeks
- The mobile intervention demonstrated good feasibility and acceptability:
 Participants typically maintained their mobile phones for the duration of the treatment, used the mobile program and reported high levels of acceptability of the program (e.g., how useful, how easy to use, etc.).
- Qualitative data indicate that several participants reported using the mobile phone-based intervention during times of heightened risk for drug use.



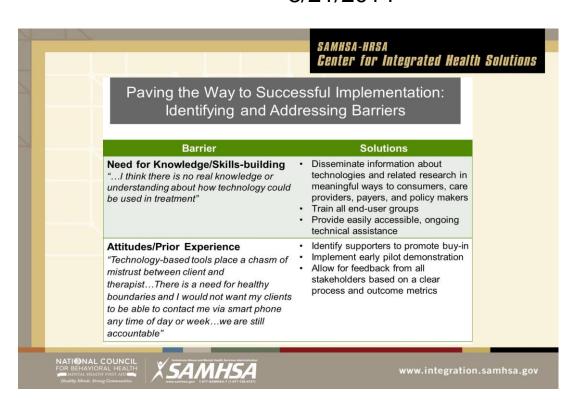


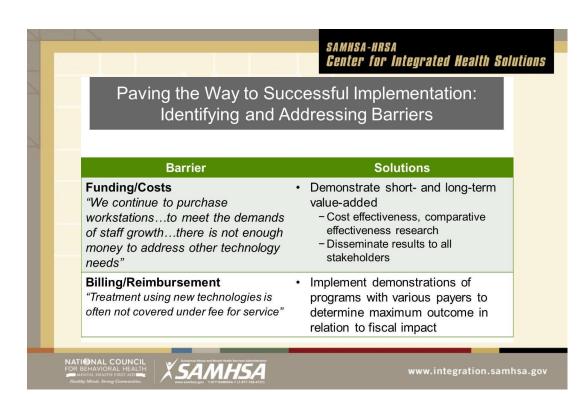


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Samhsa-Hrsa Center for Integrated Health Solutions Paving the Way to Successful Implementation: Identifying and Addressing Barriers **Barrier Solutions** Accessibility Use technology appropriate to "Customer base is primarily indigent context, population and 90% report not having access to a Utilize community resources computer, a smartphone or the internet Develop technology on multiple in their living environment"..."getting platforms service reception in remote rural areas is an issue" Privacy/Security Technologists and behavioral "Biggest barrier is protection of health experts work collaboratively confidential information...The rules to enhance: - Authentication: intended person? need to catch up to technology - Training regarding use and growth" protection of information XSAMHSA www.integration.samhsa.gov







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P30 "Center of Excellence" funded by the National Institute on Drug Abuse



- Enhance quality, pace of achievement, and impact of innovative scientific research focused on the development, evaluation, and dissemination of technology-based therapeutic tools
- Harness existing and emerging technologies with effective learning and intervention strategies
- Transform the delivery of evidencebased behavioral health care

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SAMHSA Treatment Improvement Protocol (TIP) on Technology and Behavioral Health

IN PRESS!

- Part 1: A Practical Guide for the Provision of Behavioral Health Services
- <u>Part 2:</u> An Implementation Guide for Behavioral Health Program Administrators
- <u>Part 3:</u> A Review of the Literature (online literature review that links to select abstracts and a bibliography)

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