



# How Mobile Health Technology May Improve Addiction Treatment for Patients and Providers

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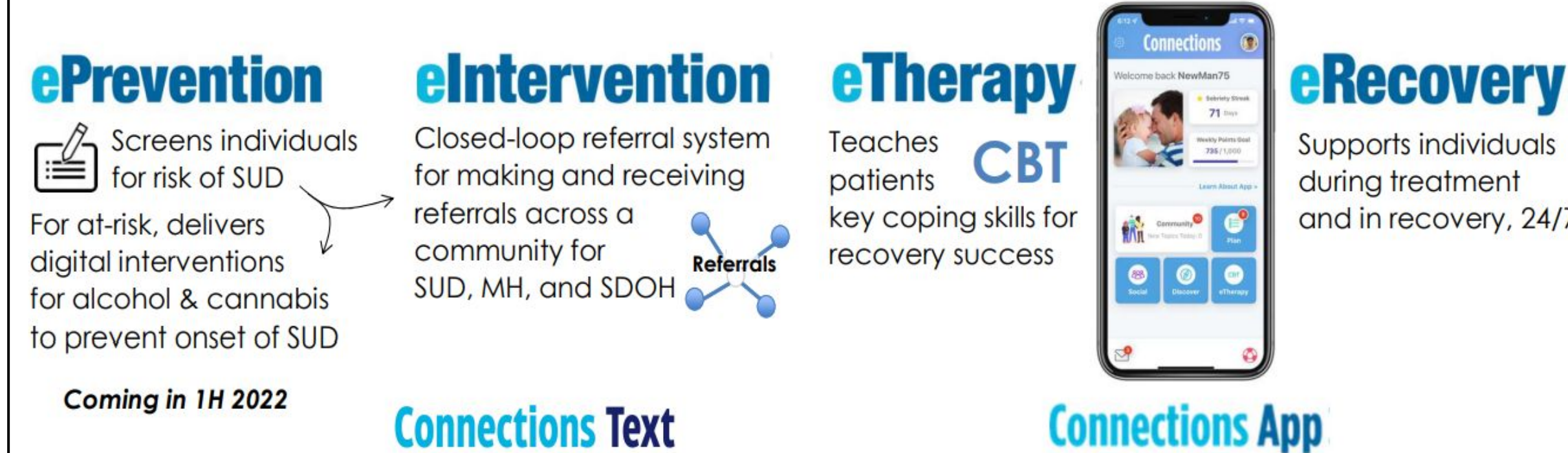
## Background

- 93.5% of individuals with substance use disorder (SUD) and 93.2% of individuals with both SUD and any mental illness are not being treated in any formal setting.
- Well studied factors causing this astronomically high number include lack of insurance, availability, provider attitudes, cost, transportation, stigmatization of mental health and SUDs, and multicultural factors.
- Diversus is a multidisciplinary community-based mental health facility that provides inpatient and outpatient treatment.
- During review of Diversus EMR, over 1,800 patients met criteria for SUD, but have not been engaged in treatment by providers. Only 325 of those patients are in treatment.
- SUD is chronic in nature, whereby individuals undergo multiple cycles of remission, relapse, and treatment reentry before achieving sustained recovery.
- CHES Health is a digital health company with a mission to address the individual and societal crisis of SUD.
  - Interest was peaked due to its success in several randomized clinical trials as well as in practice in Oklahoma and West Virginia
  - Utilizes evidence-based solutions for the addiction management lifecycle from **prevention** to **intervention** to **treatment & recovery**.
  - Implements a closed-loop referral system to connect individuals with treatment services within the community.
  - Helps patients maintain recovery, stay in treatment longer, and relapse less often.
- Target Outcomes
  - Fewer readmissions, fewer returns to higher level of care, and fewer overdoses.

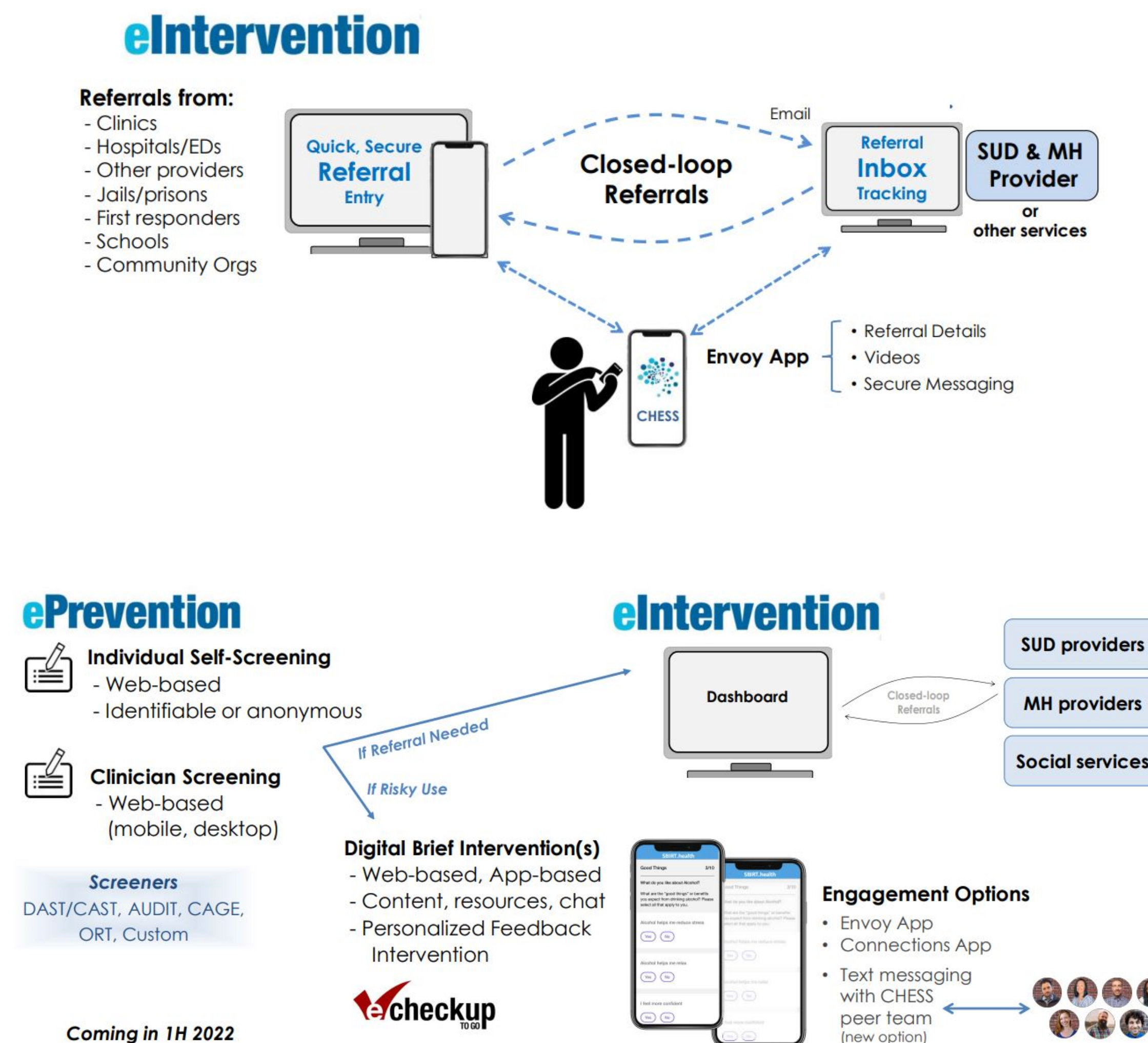
## Prior Impact of CHES Health App

- Using the app correlates with a **40-50% reduction in key relapse risk factors** (social isolation, poor coping mechanisms, and delayed intervention)
- Using the app correlates with **patients staying in treatment 20% longer**, including **30-45% reduction** in early drop-out from Intensive Outpatient programs.
- Clinical trials by both Drs. Gustafson & Carroll, with 6–12-month follow-ups, **found 30-50% greater abstinence** compared with control group.
- A Medicaid managed care organization (MCO) measured a **\$270 per member per month total cost of care savings** among members with the app vs similar cohort without the app (readmission avoidance).
- **85%+** told their providers CHES Health improved their SUD treatment.

## CHES Platform



## ePrevention & eIntervention



## Connections App

- Peer Community
  - Anonymous discussions forums.
  - Recovery, mental wellness, and fun/social topics.
- Support Group Meetings via video
- Peer Engagement Team
  - Moderate online discussion 24/7, promote topics, provide 1:1 support when necessary, alert providers/case manager when help is needed.
- Link to Local Resources and Care Team
- eTherapy
  - Cognitive Behavioral Therapy (CBT).
  - Self-guided programs to teach durable recovery skills.
- Other Recovery Support Tools
  - Daily motivations, sobriety tracking, recovery tracking via assessments (BAM, PHQ-9, TEA, etc), appt and Rx reminders, **high-risk location alerts**, educational content.

## Limitations

- Access to mobile health technology through smart devices
- Technology literacy
- Health literacy
- Health system funding
- Language barriers
- Lack of evidence based therapeutic apps for comparison

## Discussion

- Implementation of CHES Health has been shown to improve SUD treatment experience for patients and providers.
  - Screening and easy closed-loop referral system has been shown to improve identification and engagement of SUD patients.
  - Takes pressure off community providers to follow SUD patients throughout treatment.
  - Allows patients to accept treatment when they are ready.
  - Patients receive 24/7 support through community and peer engagement.
  - Patients can remain anonymous to decrease barriers of shame and guilt surrounding treatment.
- Decreased healthcare costs related to SUD treatment.
- This treatment modality is the first of its kind to be implemented in the state of Colorado.
- There are several barriers to the use of mobile health technology that need to be addressed to make treatment more equitable.

## Future Objectives

- Perform qualitative interviews with individuals who have used SUD apps and ask about what resources were missing (i.e job resources, language, etc).
- Hold focus groups with other medical students to talk about these problems and brainstorm solutions.
- Aggregate data from the implementation of CHES Health at Diversus health clinics in order to track relapse outcomes through data analysis.
- Brainstorm ways to implement CHES Health in other at need health systems in Colorado.

## References



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