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Perinatal Substance Use and Screening & Brief Intervention

FASD Prevention & Clinical Guidelines

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Alcohol-SBI

Acknowledgements

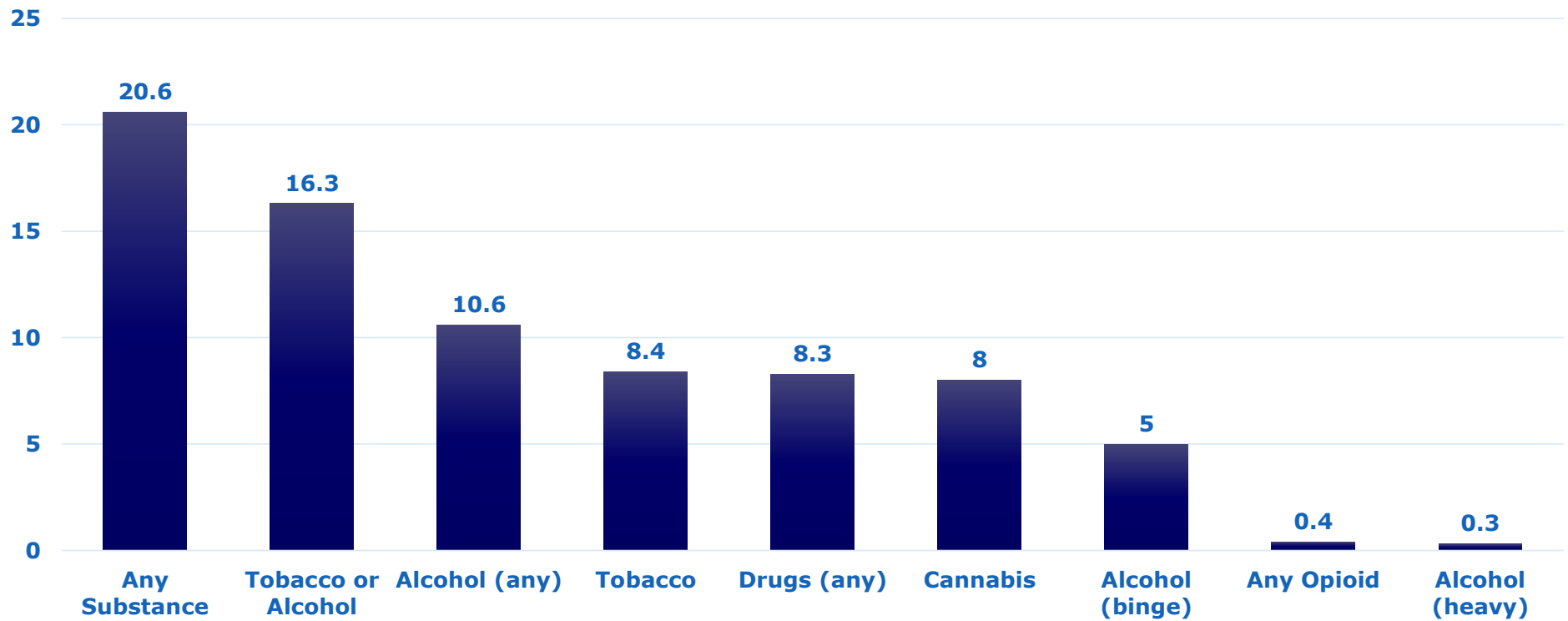
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Perinatal substance use

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Past-month substance use during pregnancy

U.S. National Survey on Drug Use and Health, 2020



Polysubstance Use in Pregnancy

Data from a national survey showed that **among pregnant women**

about **10%** had **at least one alcoholic drink** in the past 30 days



of those using alcohol, **40% also used other substances** (most often tobacco & marijuana)

Increased screening and interventions could improve the health of women and their children

Source: National Survey on Drug Use and Health (NSDUH), United States, 2015–2018

Costs of Prenatal Alcohol Use

Drinking too much is linked with many risks.

For any pregnant woman and baby

- miscarriage
- stillbirth
- prematurity
- fetal alcohol spectrum disorders (FASDs)
- sudden infant death syndrome (SIDS)

For anyone

- injuries/violence
- heart disease
- cancer
- sexually transmitted diseases
- fertility problems
- unintended pregnancy

Drinking too much for women includes...

PREGNANT	NON-PREGNANT		
 <p>any alcohol use by women who are pregnant or might be pregnant</p>	 <p>8 or more drinks per week (more than 1 drink on average per day)</p>	 <p>binge drinking (4 or more drinks within 2-3 hours)</p>	 <p>any alcohol use by those under age 21</p>

For men, see www.cdc.gov/vitalsigns/alcohol-screening-counseling.

Costs of Prenatal Alcohol Use




Alcohol use during pregnancy can lead to lifelong effects.

Up to **1 in 20** US school children may have FASDs.



People with FASDs can experience a mix of the following problems:

Physical issues

- low birth weight and growth 
- problems with heart, kidneys, and other organs 
- damage to parts of the brain 

Which leads to...

Behavioral and intellectual disabilities

- learning disabilities and low IQ 
- hyperactivity 
- difficulty with attention
- poor ability to communicate in social situations
- poor reasoning and judgment skills 

These can lead to...

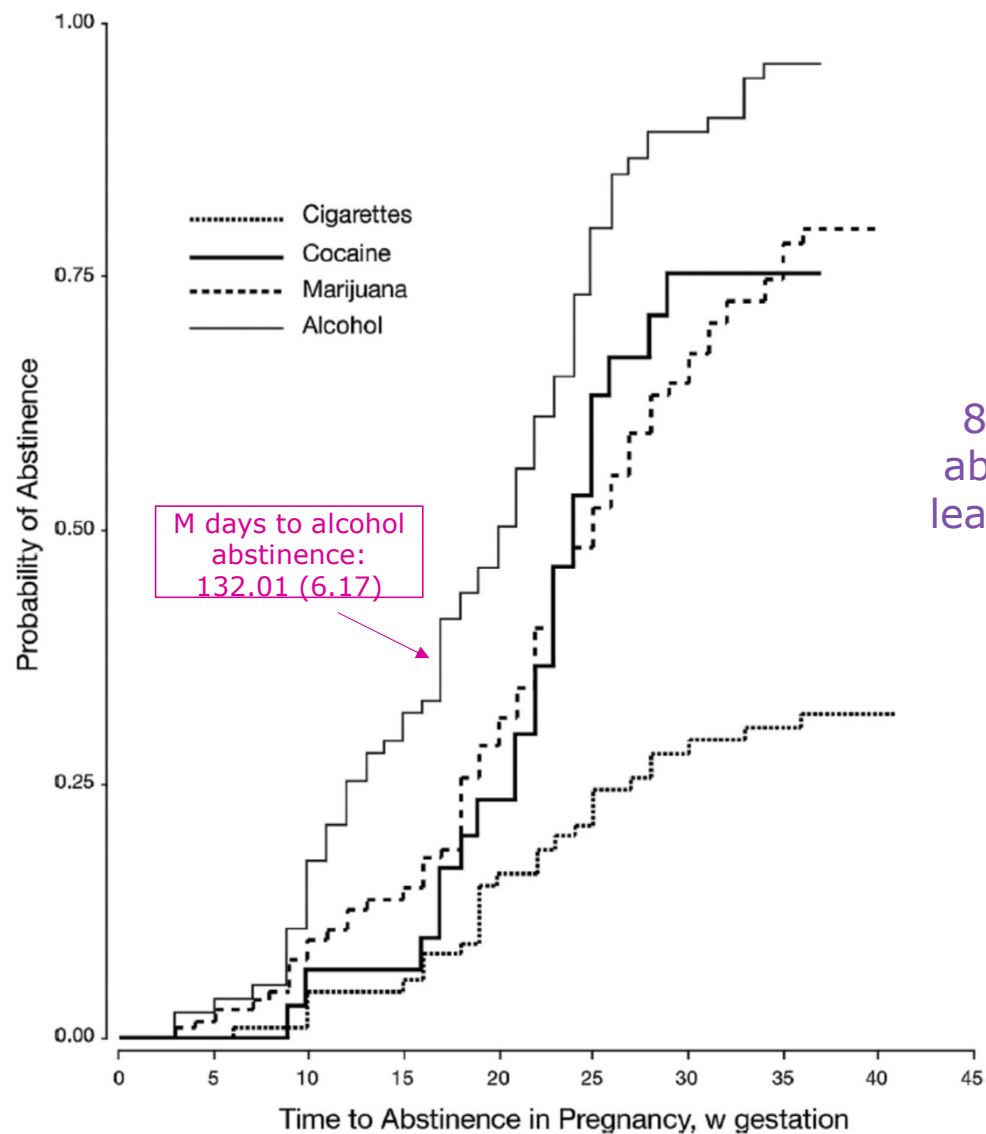
Lifelong issues with

- school and social skills 
- living independently
- mental health
- substance use 
- keeping a job
- trouble with the law

Drinking while pregnant costs the US **\$5.5 billion** (2010). 

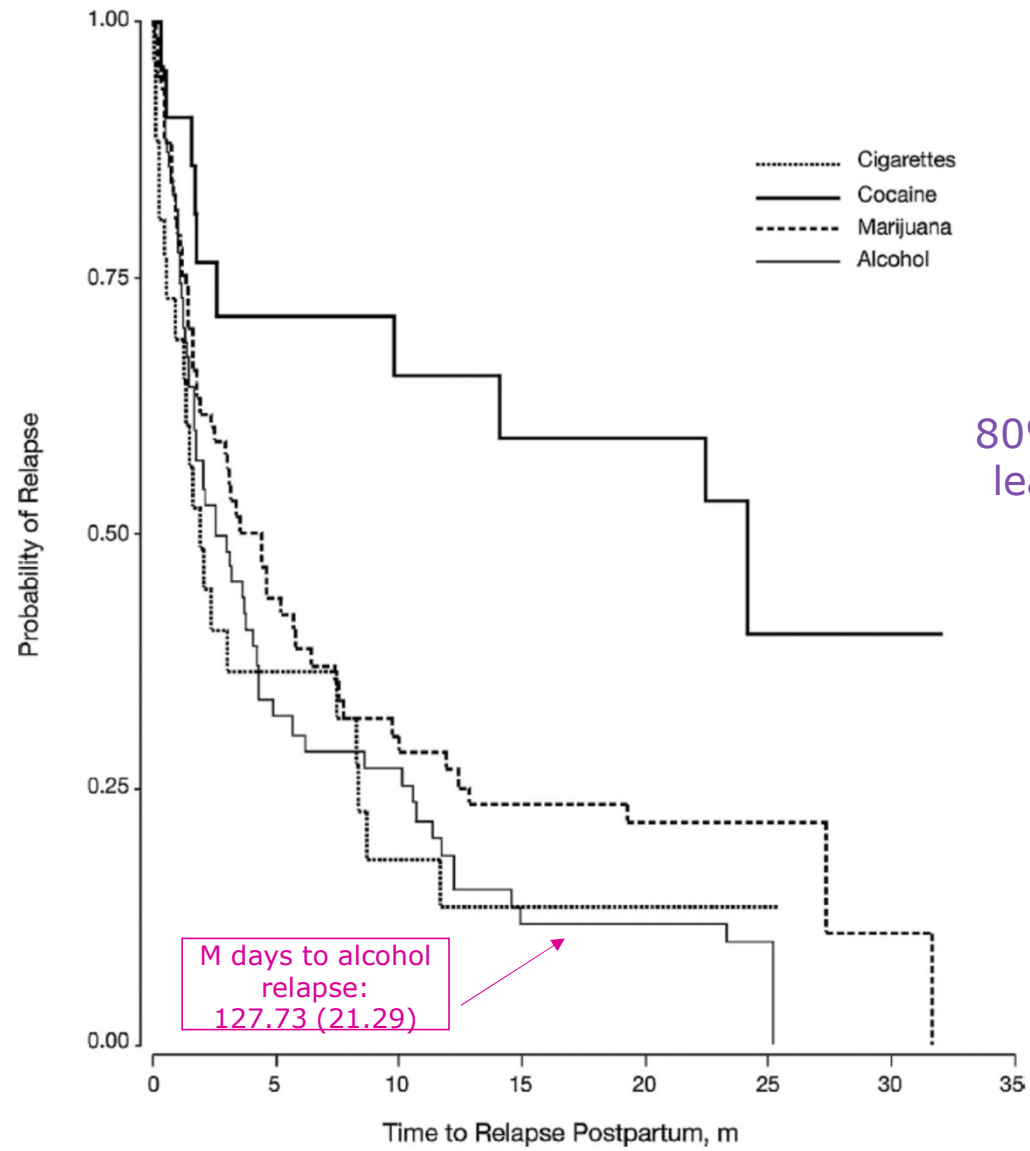
SOURCES: CDC Vital Signs, February 2016. American Journal of Preventive Medicine, November 2015.

Time to abstinence in pregnancy



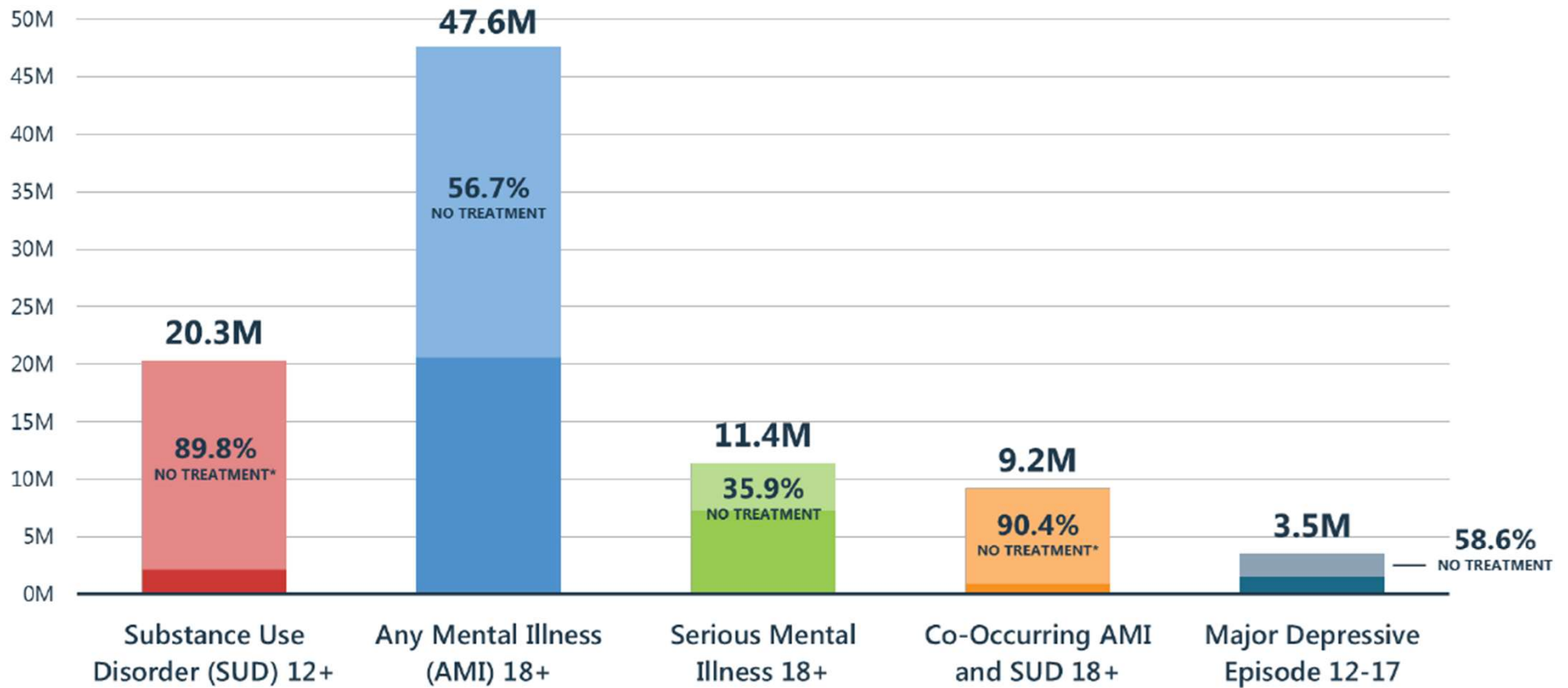
83% achieved abstinence to at least 1 substance

Time to relapse postpartum



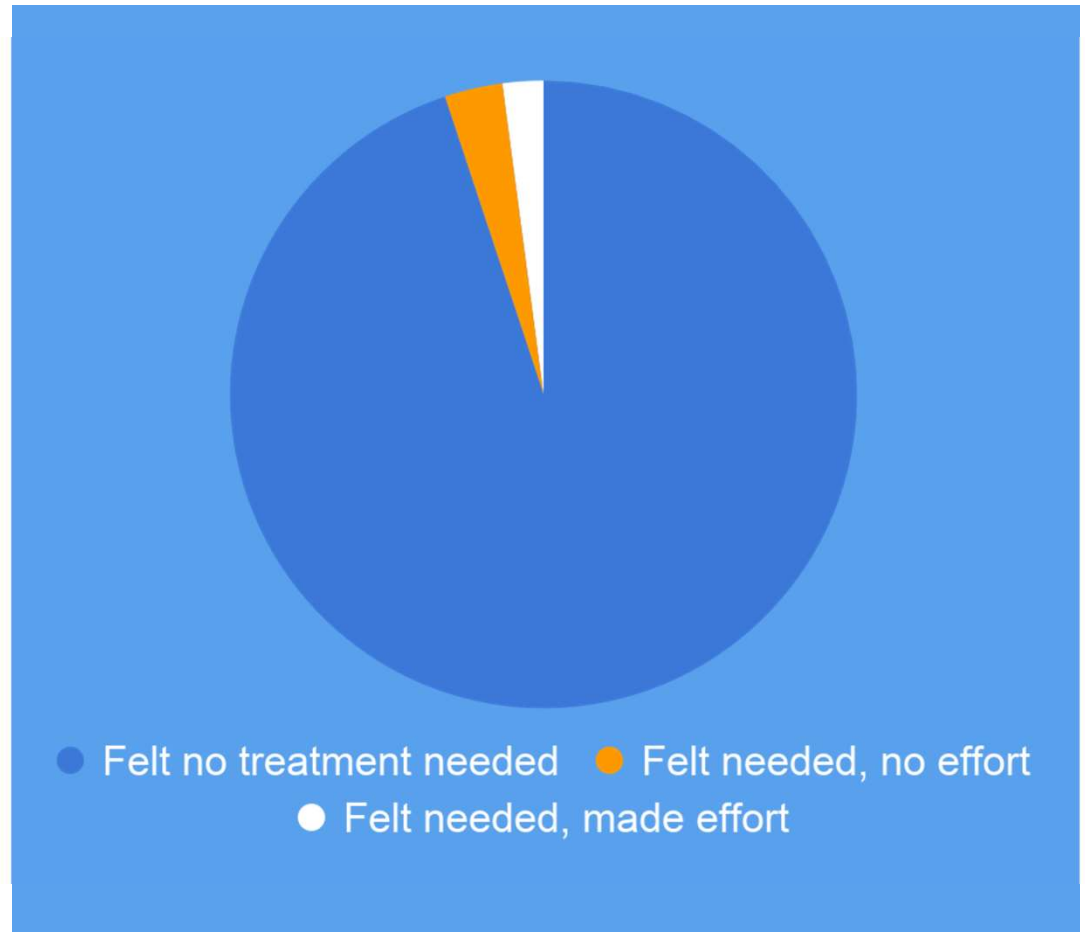
Despite Consequences and Disease Burden, Treatment Gaps Remain Vast

PAST YEAR, 2018 NSDUH, 12+



* No Treatment for SUD is defined as not receiving treatment at any location, such as a hospital (inpatient), rehabilitation facility (inpatient or outpatient), mental health center, emergency room, private doctor's office, self-help group, or prison/jail.

Perceived need for substance use treatment among people aged 12 or older who needed but did not receive specialty substance use treatment in the past year



(N = 18.9 million; National Survey on Drug Use & Health, 2019)

Preventing Prenatal Alcohol Exposure

- Public health focus on women of childbearing age
 - Prevention efforts have shifted to focus on ALL women of childbearing age who are unhealthy drinkers
 - Preconception use as strong risk factor for prenatal use
 - Approximately half of all pregnancies are unintended
 - First trimester, particularly weeks 3-8, as critical period for embryo formation
 - Example EBP: CHOICES

“No Amount of
Alcohol
Is **Safe** For
Pregnant Women
To Drink”

NIAAA

**National Institute on Alcohol
Abuse and Alcoholism**

Screening and Brief Intervention (SBI)

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Screening for Alcohol Use

Doctors, nurses, or other health professionals should screen* every adult patient, including pregnant women, and counsel those who drink too much. Providers can help women avoid drinking too much, including avoiding alcohol during pregnancy, in 5 steps.

1 Assess a woman's drinking.

- Use a validated screener (e.g., AUDIT (US)*).
- Take 6-15 minutes to explain results and provide counseling to women who are drinking too much.
- Advise her not to drink at all if she is pregnant or might be pregnant.
- Come up with a plan together.

"The best advice is to stop drinking alcohol when you start trying to get pregnant."



2 Recommend birth control if a woman is having sex (if appropriate), not planning to get pregnant, and is drinking alcohol.

- Review risk for pregnancy and importance of birth control use.
- Discuss full range of methods available.
- Encourage her to always use condoms to reduce risk of sexually transmitted diseases.

3 Advise a woman to stop drinking if she is trying to get pregnant or not using birth control with sex.

- Discuss the reasons to stop alcohol use before the woman realizes she is pregnant.

4 Refer for additional services if a woman cannot stop drinking on her own.

- Provide information on local programs or go to SAMHSA treatment locator. www.findtreatment.samhsa.gov
- Consider referral to treatment or recommend Alcoholics Anonymous. www.aa.org

5 Follow up yearly or more often, as needed.

- Set a time for return appointment.
- Continue support at follow-up.

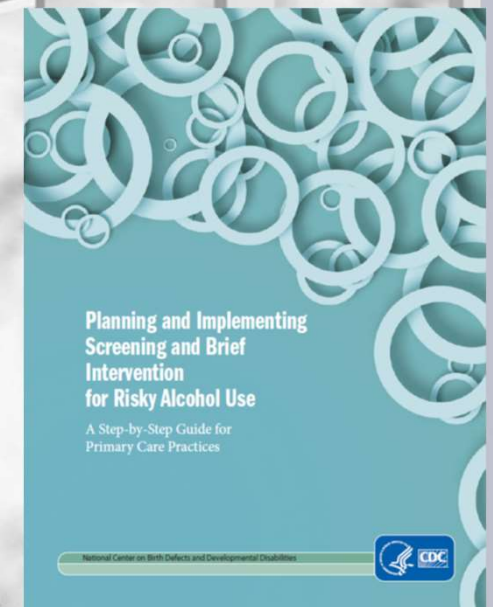
5 Steps to Screening for Alcohol Use

*Learn how to do alcohol screening and counseling at www.cdc.gov/ncbddd/fasd/alcohol-screening.html.

SOURCE: Adapted from American College of Obstetricians and Gynecologists. www.acog.org/alcohol.

Responding to non-treatment seeking in health settings: Screening and Brief Intervention (SBI)

- Involves universal screening for health risks, most often in healthcare settings; patients screening positive receive a brief (5-30 minute) motivational session
- SBI reduces substance use, but effects are small and implementation is a major challenge
- Electronic SBI (e-SBI) could scale up more readily, and could have advantages in terms of acceptability

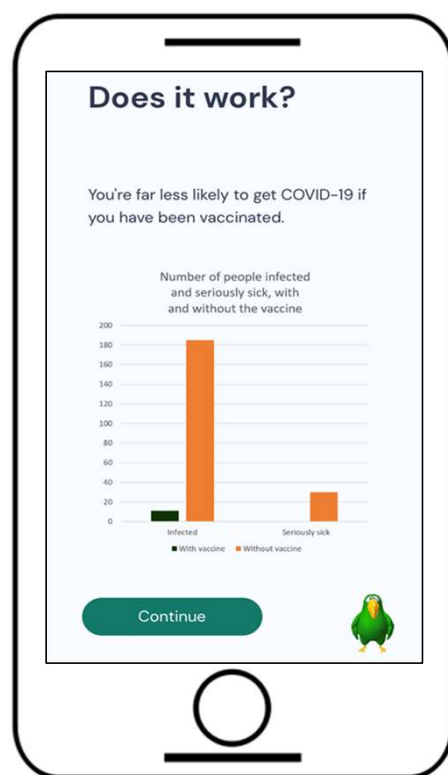
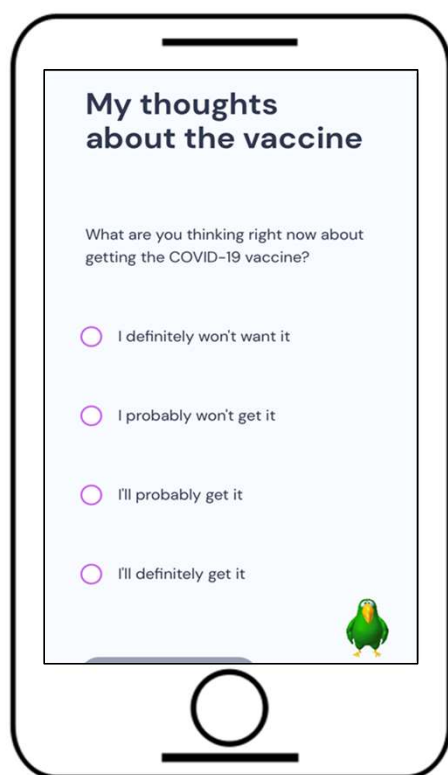


The promise of e-SBI

- e-SBI leverages technology to conduct SBI
- Can address challenges to provider-delivered SBI
 - Increased fidelity
 - Increased disclosure
 - Reduced cost
 - Reduced training time
 - Reduced provider time



e-SBI platform: Computerized Intervention Authoring System (CIAS) v.3.0



CIAS 3.0 allows easy development of interactive mobile web apps

- Open-source & non-commercial, with user-centered design
- Optimized for collaboration & sharing
- Key features include:
 - Animated talking narrator that can do natural language reflections and personalized feedback
 - Two-way tailored texting
 - Easy insertion of images and videos
 - Tailored report generation for users and healthcare providers

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<https://www.cias.app/>

(NIH/NIBIB EB028990)

Alcohol use in pregnancy

(Ondersma, Beatty, Svikis, Strickler, Tzilos, Chang, Divine, Taylor, & Sokol, 2015)

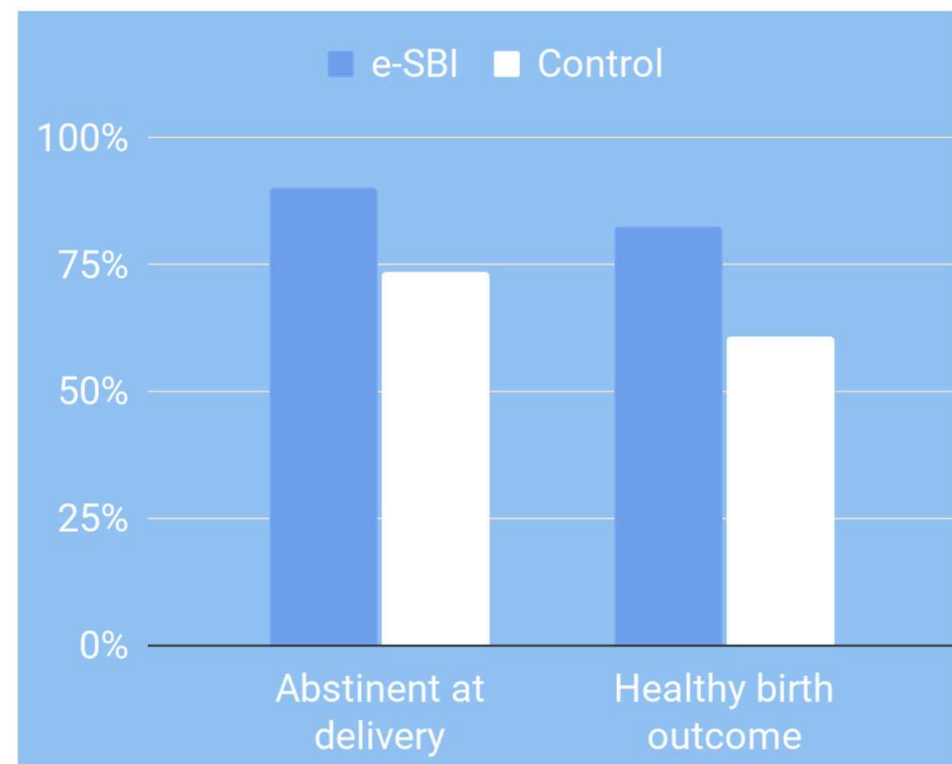


Overview

Pilot trial of e-SBI for alcohol use among 48 pregnant women recruited from routine prenatal care; follow-up at childbirth

Findings:

- As expected, there were no significant between-group differences
- Abstinence (OR = 3.4) and healthy birth outcome (live birth, normal birthweight, no intensive care; OR = 3.3) both support further study of alcohol e-SBI



e-SBI vs. SBI among at-risk women

(Martino, Ondersma, Forray, Olmstead, Gilstad-Hayden, Howell, Kershaw, & Yonkers, 2018)

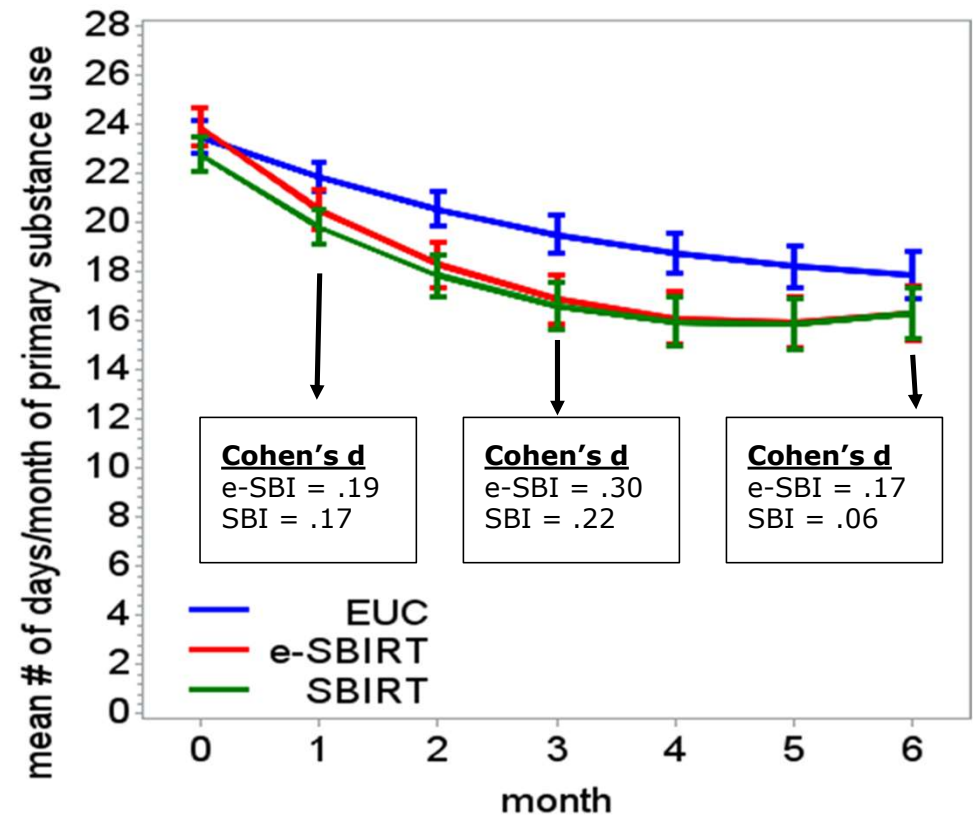


Overview

Person-delivered SBI vs. e-SBI vs. enhanced usual care among 439 women screening positive for unhealthy substance use during routine reproductive care; 17% pregnant

Findings:

- SBI and e-SBI both outperformed enhanced usual care, with steeper declines in substance-using days
- Effect sizes were in the small to moderate range
- NO effect on receipt of services



Abstinence outcomes, e-SBI vs. SBI

(Yonkers, Dailey, Gilstad-Hayden, Ondersma, Forray, Olmstead, & Martino, 2020)

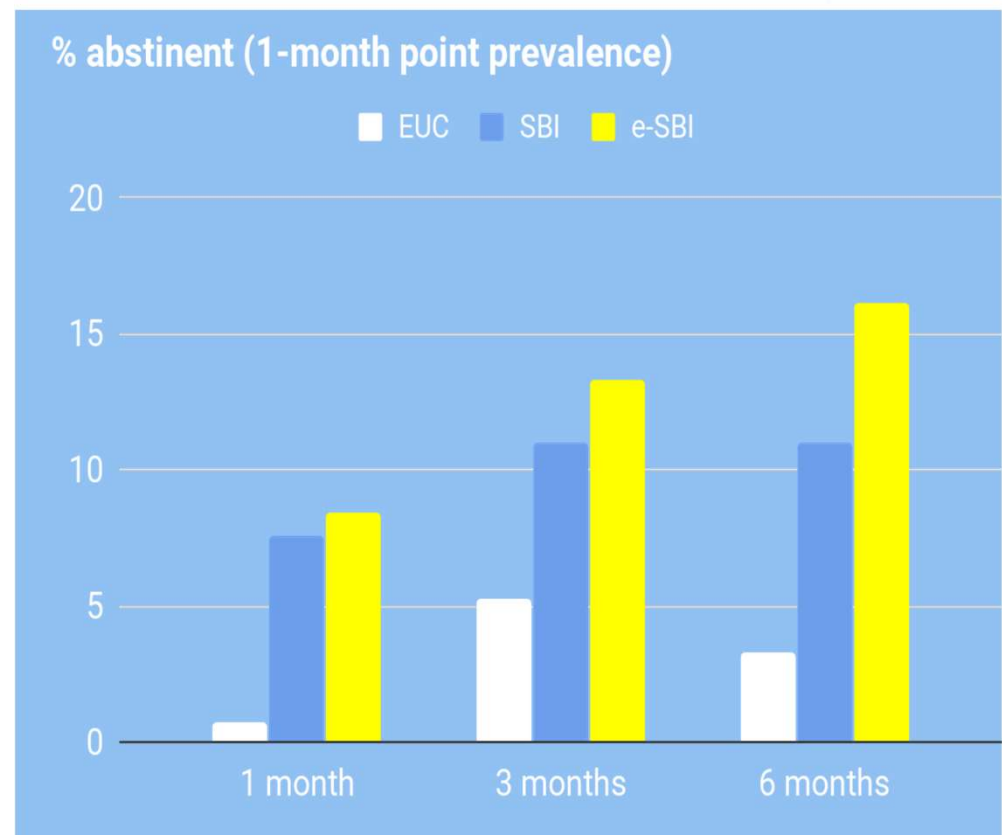


Overview

Abstinence is a readily understood and clinically meaningful endpoint that is not necessarily reflected in overall reductions in frequency of use.

Findings:

- Both interventions show significant increases in abstinence vs. EUC
- e-SBI showed a stronger advantage among pregnant women, and for illicit drugs



Satisfaction, Alliance, BI Content, e-SBI vs. SBI

(Loree, Yonkers, Ondersma, Gilstad-Hayden, & Martino, 2019)

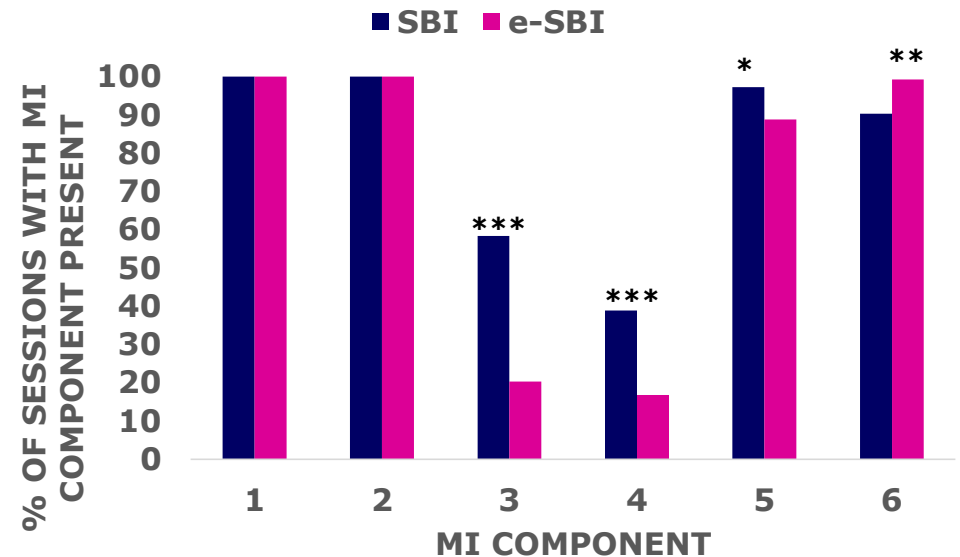
Overview

Acceptability and its relation to outcome has not been examined in e-interventions.

Fidelity (BI content as proxy) in e-interventions also understudied.

Findings:

- Satisfaction and alliance rated highly for both e-SBI and SBI; neither was correlated with outcome
- Content overall was similar with some exceptions



Cost effectiveness, e-SBI vs. SBI

(Olmstead, Yonkers, Ondersma, Forray, Gilstad-Hayden, & Martino, 2019)

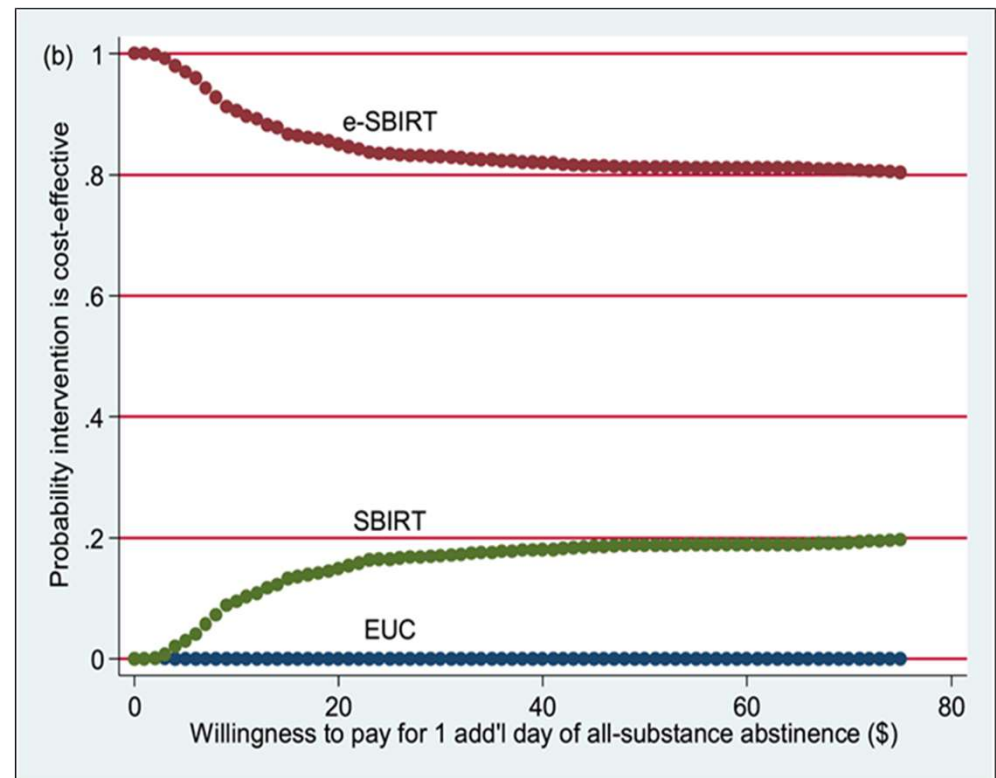


Overview

Cost-effectiveness is a critical consideration for long-term sustainability and use of limited resources.

Findings:

- e-SBI had the same approximate cost as enhanced usual care (EUC)
- e-SBI showed greater cost-effectiveness from both the clinic and patient perspectives



Implementing e-SBI in a large, integrated healthcare system

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Henry Ford Health

- Founded in 1915
- Large, integrated healthcare system serving southeastern and south-central Michigan, including metro Detroit
 - 5 acute care hospitals, 40+ medical centers
 - 1,700+ physicians and 23,000+ healthcare professionals and support staff
 - Main hospital is Detroit's sole safety net hospital
- Diverse patient population and service area (urban to rural)
 - 3.3M outpatients per year
 - 9,000 deliveries per year
- Pioneered Zero Suicide model and Perfect Depression Care
- Strong investment in virtual care and digital health



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Implementing e-SBI in HFH Women's Health

Overview

- Contact PI: Amy Loree, PhD, LP
 - HFH Center for Health Policy & Health Services Research
- Co-PI: Steven Ondersma, PhD
 - Michigan State University
- Funded by the CDC National Center on Birth Defects and Developmental Disabilities
 - Grant # NU84DD000001
 - Title: *SBI-tech Michigan: Optimizing SBI implementation for high-risk alcohol use among women of childbearing age*
 - Funding period & NCE: 9/30/2018-9/29/2023
- Target population: Women 18-45yo

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Goals

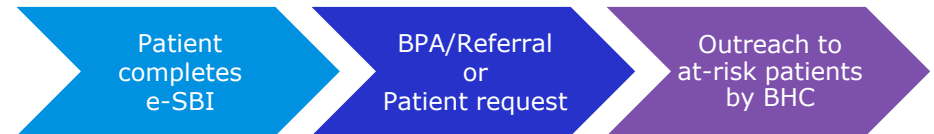
1. Design technology-based screening and brief intervention program (e-SBI) and integrate with EHR (Epic)
2. Implement e-SBI at approximately 15 HFH Women's Health
3. Evaluate implementation process and long-term sustainability



Alcohol-SBI

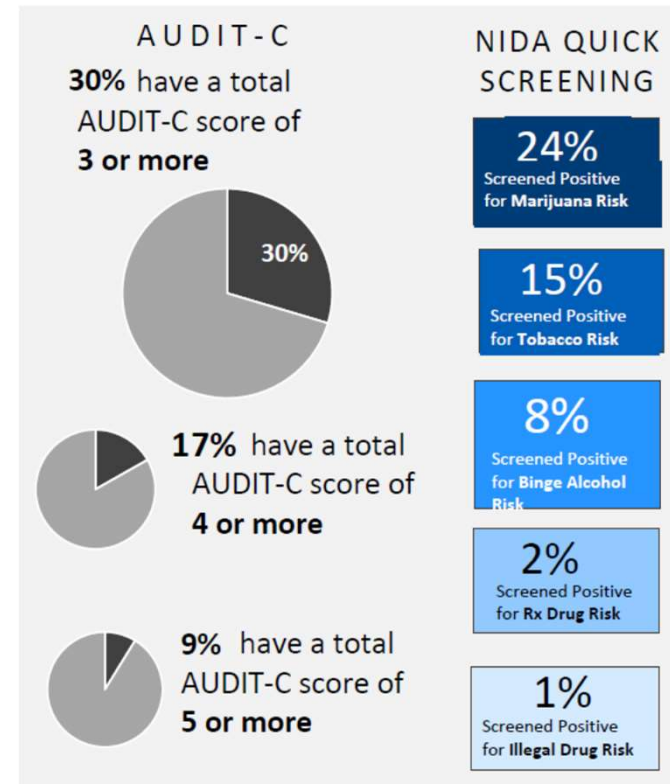
e-SBI Implementation

- Currently implemented at 3 WH clinics
 - Target go-live at clinics 4-7: November 2022
- Two options for completing e-SBI program:
 - Patient is sent MyChart message with link to the program to complete on their own device
 - Patient completes program on iPads in clinic waiting rooms prior to scheduled appointment
- Patients attending new and annual GYN and completed OB intake visits
- Patients referred for follow-up receive telehealth-based outreach by a licensed behavioral health clinician, who conducts additional assessment and provides additional services and/or referrals as needed



Health Checkup Screening

- AUDIT-C
 - Asks about typical use in the last 12 months
 - Scores < 3 are consistent with normal alcohol consumption and follow up questions may need to be asked about most recent use.
- NIDA Quick Screen
 - Includes binge drinking, tobacco, cannabis, prescription drugs, and illegal drug use
- PHQ-2/9, GAD-2/7, sleep, prenatal vitamins, general health and stress



Screening

95% found e-SBI easy or pretty easy to use

Screening Introduction

My health checkup



Hi, I'm Peedy. This program was made by experts to help you become healthier.

It will ask you some questions about your health. Then it will help you to think about what, if anything, you could change in order to be healthier. We hope it's helpful for you.

You'll have the choice later to send your answers to your doctor, if you want. Otherwise this is just between you and me.



Questions to finish in section : 0

Alcohol Screening Introduction

My health checkup



Now I have just a few questions about alcohol and other substance use. For these questions, a single standard drink equals one 12-ounce beer, one 5-ounce glass of wine, or a single 1.5-ounce shot. So a typical mixed drink equals two standard drinks, and a 40-ounce equals about 4 standard drinks.



OK, got it




Questions to finish in section : 25

Brief Intervention

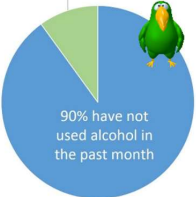
60% of screen+ elect to complete BI

Personalized Feedback

Personalized Feedback
Feedback just for me



10% used any alcohol



90% have not used alcohol in the past month

Questions to finish in section : 4

Change Plan Slide

I want to cut down
Best Reason to change



What's the biggest reason you've decided to cut down?

- To improve my health
- To protect my children or baby
- To save money
- Because bad things happen when I drink
- It just feels right
- Spending more time with positive people
- To make healthier decisions
- Something else not listed



Questions to finish in section : 6

Brief Intervention

Personalized Feedback via Tailored Videos

Personalized Feedback

Message from Dr. Jones and Dr. Hansen



Questions to finish in section : 5



<https://youtu.be/pUoiIxuo2eo>

Clinic Staff Training

- Training activities are tailored to the needs of each clinic
- May include any combination of the following:
 - Brief (15-30 min) virtual or in-person training with relevant staff (e.g., providers, nurses, MAs, CSRs)
 - Presentations at clinic staff meetings, huddles, and Grand Rounds
 - Emailed tip sheets
 - One-on-one detailing

Screening Feedback Report

e-SBI Report

accessible via the Notes tab in patient's EHR

Screening responses accessible in Screening tab



Any domain with a + sign suggests a possible risk in that area. Past year substance use is positive if patient reports any use.

+	+	+			
Alcohol (AUDIT-C)	Past Year Binge Drinking	Past Year Tobacco	Past Year Marijuana	Past Year Rx Non Medical	Past Year Other Drugs

Patient interested in: talking to a Behavioral Health Specialist; talking with provider;

Best Practice Advisory

Alcohol Screening and Brief Intervention Alert: Your patient screened positive for at-risk alcohol use. Please review the e-SBI report in the Notes tab in Chart Review.

Suggested talking points if submitting a referral:

- Thanks for completing the health check-in on the iPad today.
- Your responses suggest that you may be at increased risk for health issues related to alcohol use. I wonder what you think about that.
- We have a program that helps women make healthy changes in areas like alcohol use, eating, sleep, etc. Would it be alright if I had a behavioral health specialist from the program reach out to you?

ⓘ

✓ Accept (1) ✕ ⏏

Order Do Not Order 🏠 Ambulatory referral to Alcohol SBI

Acknowledge Reason _____

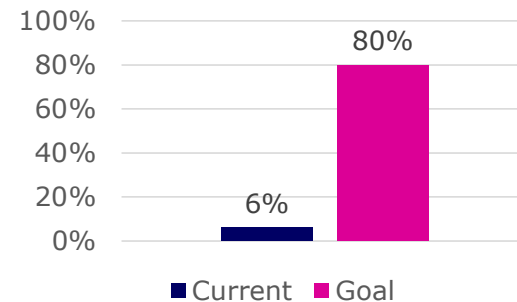
Patient Declines Not Applicable This Visit

Includes suggested talking points for initiating a brief discussion about alcohol use with patient

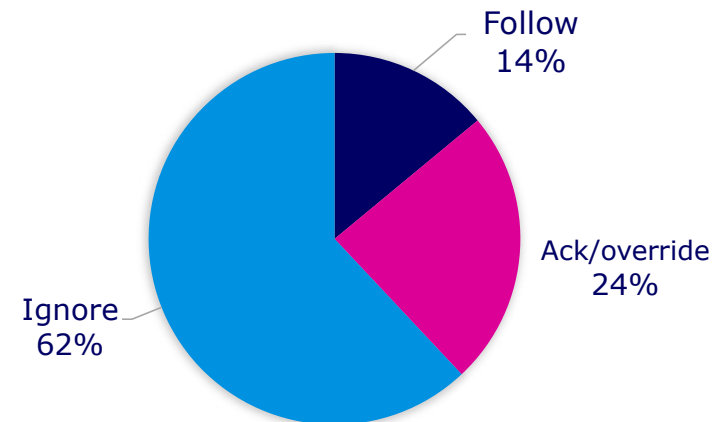
e-SBI easily integrated? Not so fast...

- Additional steps are difficult for CSRs to fit in, especially during busy periods
- Determining who should be given the iPad is also a challenge
- COVID necessitated a major shift in how patients access their health care
- Patients receive MANY MyChart reminders
- Providers receive MANY BPAs
- Clinics juggling multiple studies, initiatives, priorities

TOTAL SCREENINGS



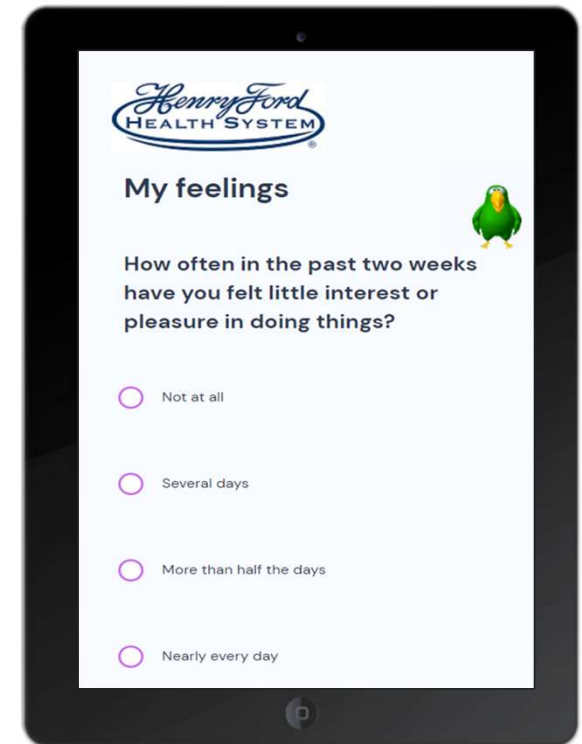
INTERRUPTIVE BPA OUTCOMES



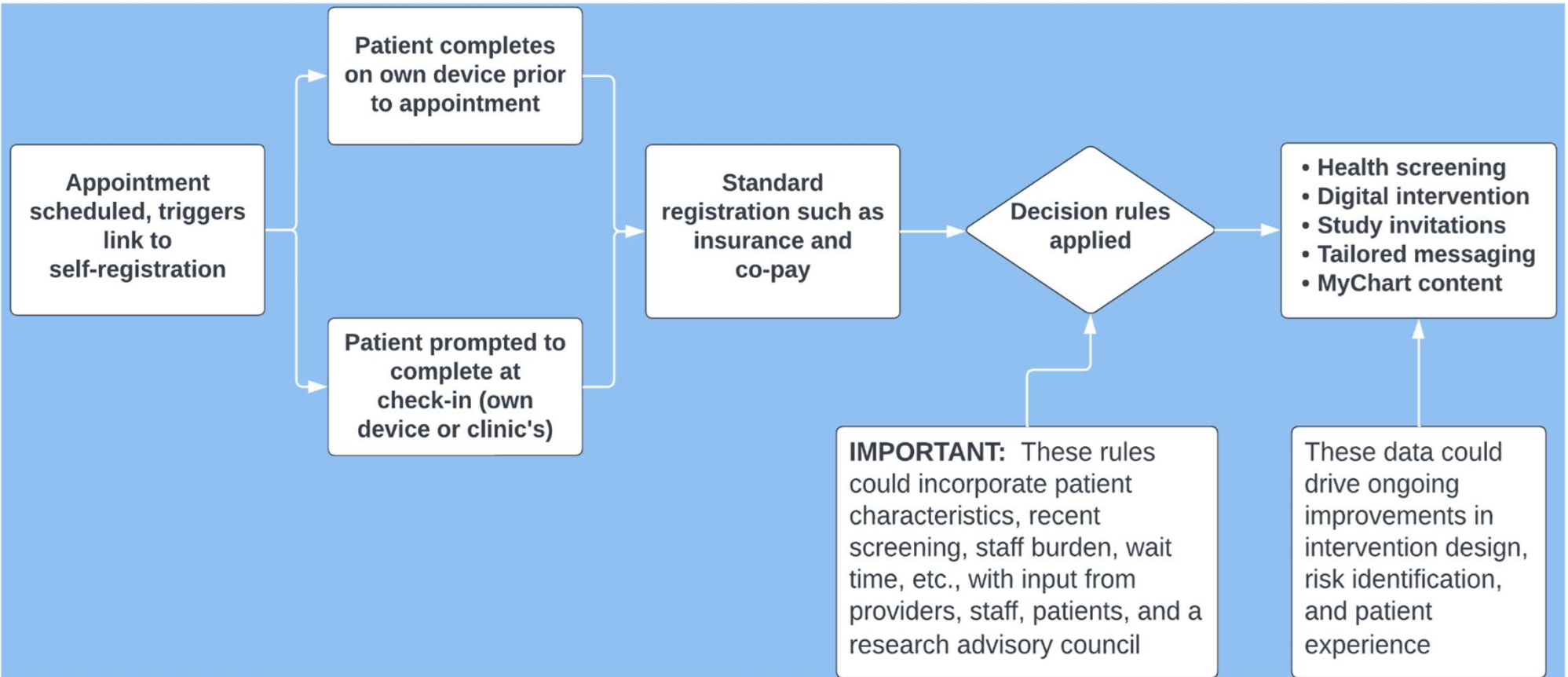
e-SBI in HFH Pediatric Clinics

(PI Jordan Braciszewski, PhD)

- Screening adolescents for substance use and depression/anxiety
- Collaboration between research team and clinical leadership to address limitations of paper and pencil screening
- Switched to electronic screening, now being used at 7 Pediatrics clinics and 2 Family Medicine clinics
 - Youth are handed an iPad by MA upon arrival
 - Screening rates have improved 4-24%
 - Over 3500 new substance use screenings, with more than 250 brief interventions delivered



A roadmap for sustainable integration of e-SBI



Thank you!

Amy Loree, PhD

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