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Screening for Substance Use in Primary Care: Screening Tools and Guidance for Implementation

Jennifer McNeely, MD, MS

Associate Professor, Department of Population Health
NYU Grossman School of Medicine

February 14th, 2023



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How to Participate in Q&A

****Use the “Q&A” area of the attendee control panel****



****We will reserve 20 – 30 minutes for Q&A after the presentation****

Webinar Faculty



Jennifer McNeely, MD, MS
Associate Professor, Department of
Population Health
NYU Grossman School of Medicine
February 14th, 2023

Disclosures

- Jennifer McNeely, MD, MS, faculty for this educational activity, has no relevant financial relationship(s) with ineligible companies.

Target Audience

- The overarching goal of PCSS is to train healthcare professionals in evidence-based practices for the prevention and treatment of opioid use disorders, particularly in prescribing medications, as well for the prevention and treatment of substance use disorders.

Educational Objectives

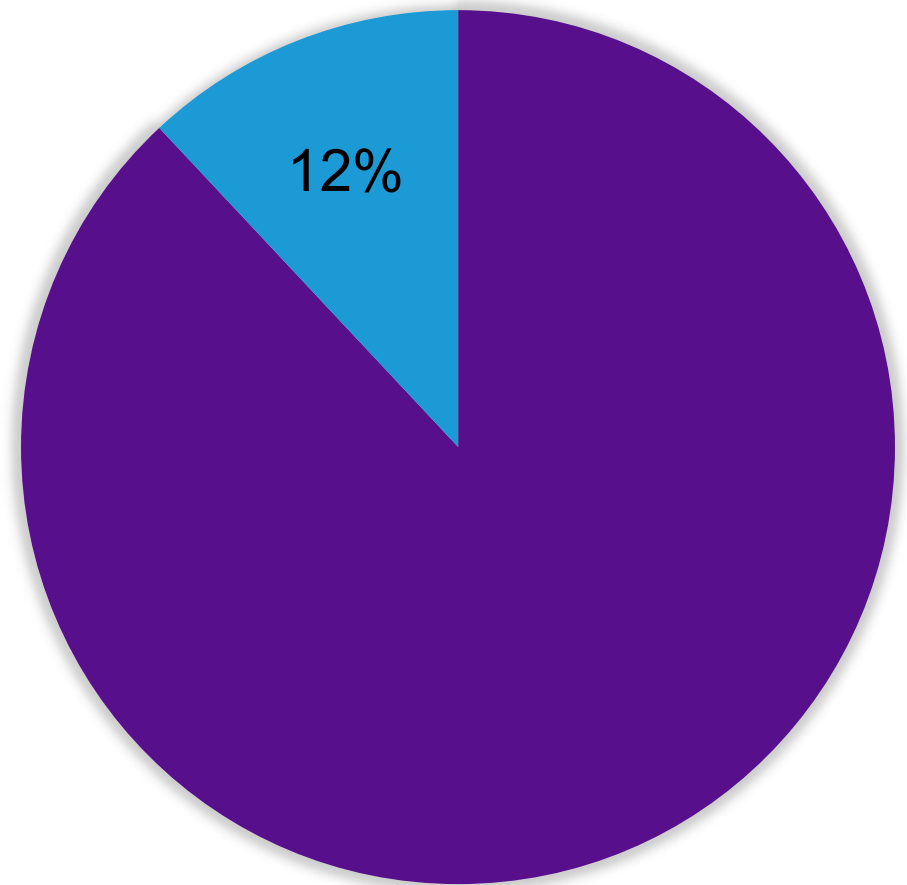
1. Apply the **screening guidelines** and current state of the evidence to your practice.
2. Review and evaluate **screening instruments** introduced in the webinar.
3. Consider screening **implementation** in general medical settings based on the needs of your current patients.

Substance Use Drives Poor Health Outcomes in the General Population

- Substance use leads to more death and disability than any other preventable condition
- Alcohol is the 3rd leading cause of preventable death in the US
- Opioid and other drug-related overdose continues to climb
 - - Over 108,000 overdose deaths per year in the US
 - - Leads all-cause mortality under age 50

Most People with Substance Use Disorder (SUD) are not Engaged in Addiction Treatment

- 21.6 million people with SUD
- 2.6 million (12%) received addiction treatment
- Majority (~60%) had a primary care visit



Health Care Contacts are an Opportunity for Intervention with Patients

- High prevalence of substance use in medical settings:
 - Primary care: 24% with risky use, 7% with SUD
 - Hospital inpatient: 17% with SUD
 - ED: 11% of all visits are for SUD
- High utilization of acute care
- *But...* most health care providers are unaware of their patients' substance use

Cherpitel and Ye, *Drug and Alc Dep* 2008
Roche et al., *Drug and Alc Dep* 2005
Walley AY, et al., *J Addict Med* 2012
D'Amico EJ, et al., *Medical Care* 2005
Zhang, West J Emergency Med 2021
McKnight-Eily LR et al., *MMWR* 2017
Hallgren KA et al., *JSAT* 2020

Current Screening Guidelines

- United States Preventive Services Task Force (USPSTF)

- Alcohol: Recommended (Grade B)

Population	Recommendation
Adults 18 years or older, including pregnant women	The USPSTF recommends screening for unhealthy alcohol use in primary care settings in adults 18 years or older, including pregnant women, and providing persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy alcohol use.

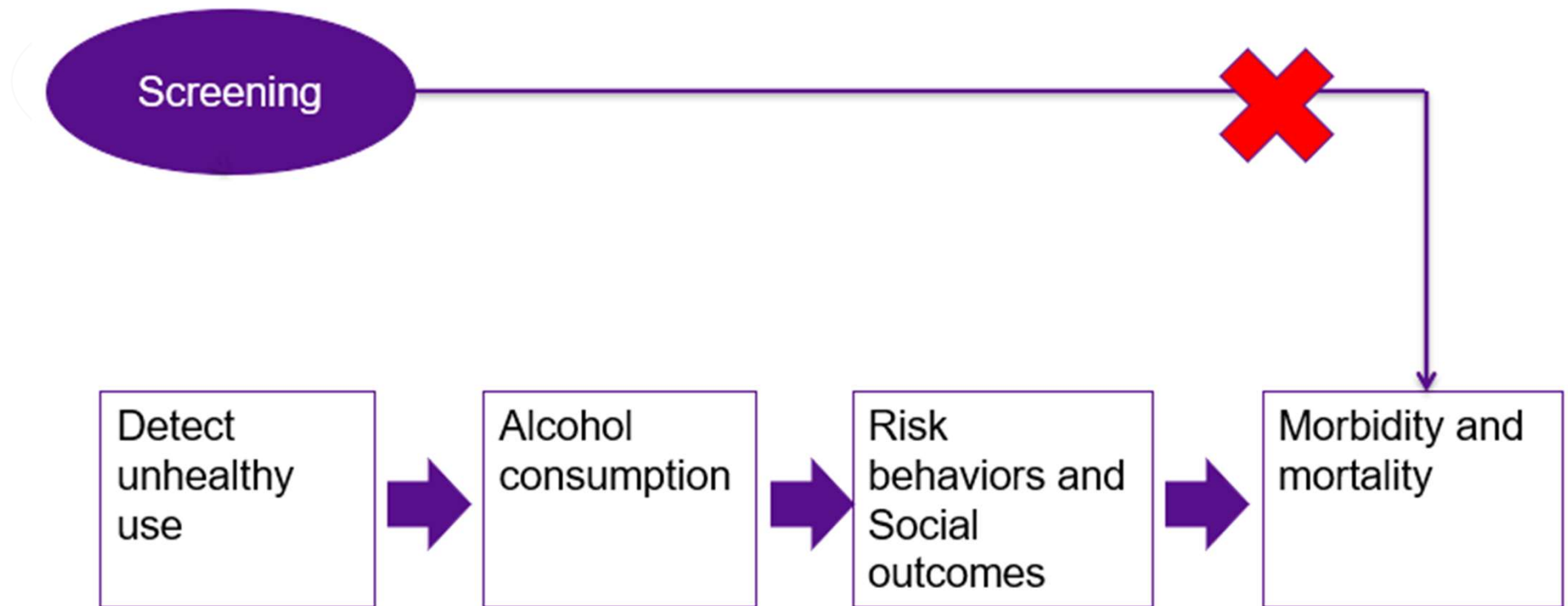
- Drugs: Recommended (Grade B)

Adults age 18 years or older	The USPSTF recommends screening by asking questions about unhealthy drug use in adults age 18 years or older. Screening should be implemented when services for accurate diagnosis, effective treatment, and appropriate care can be offered or referred. (Screening refers to asking questions about unhealthy drug use, not testing biological specimens.)
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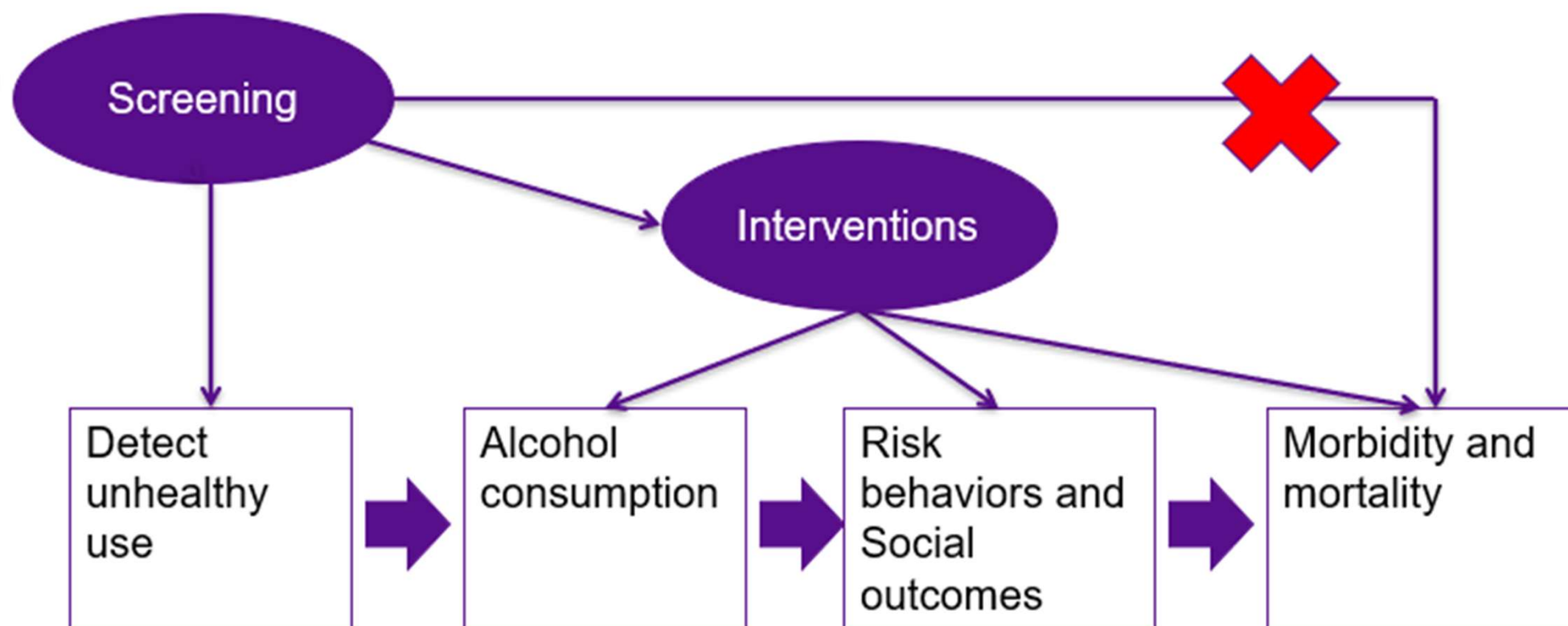
USPSTF. Screening and behavioral counseling interventions to reduce unhealthy alcohol use. JAMA 2018

USPSTF. *Screening for Unhealthy Drug Use*. JAMA 2020

USPSTF Evaluation of Alcohol Screening



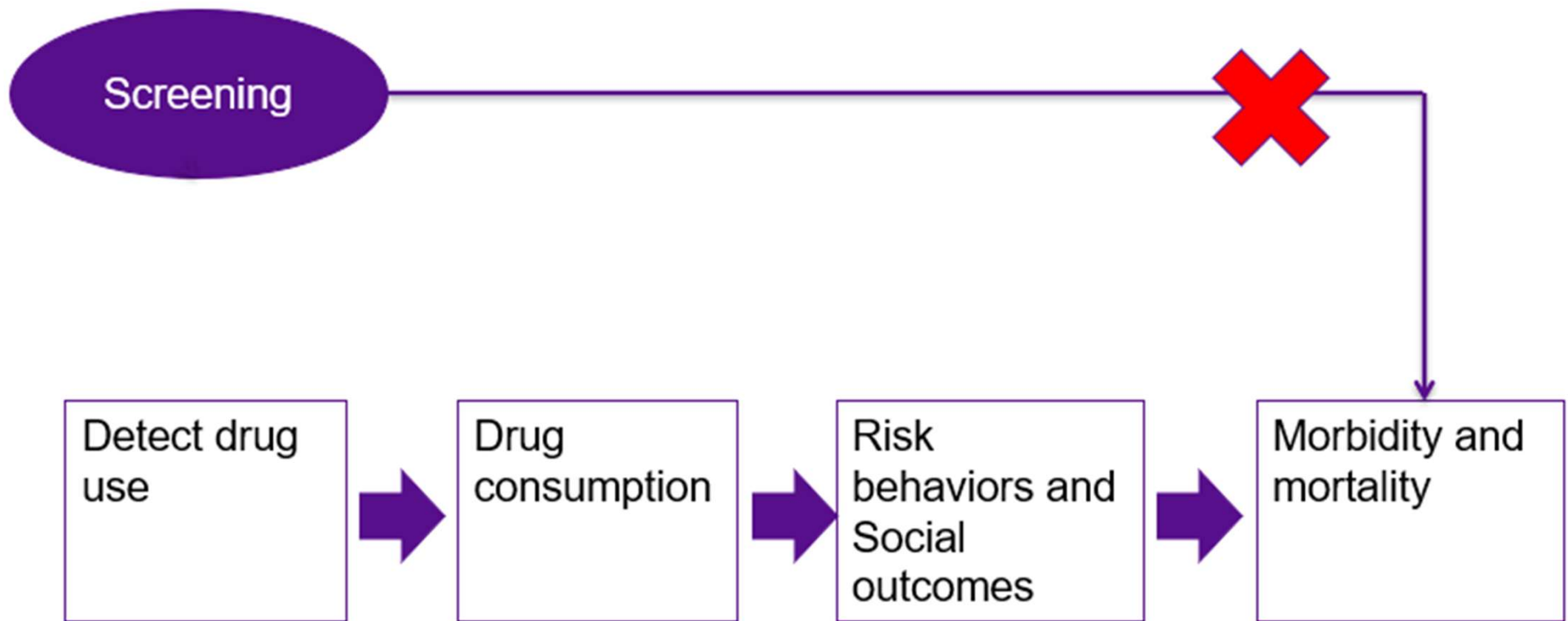
USPSTF Evaluation of Alcohol Screening



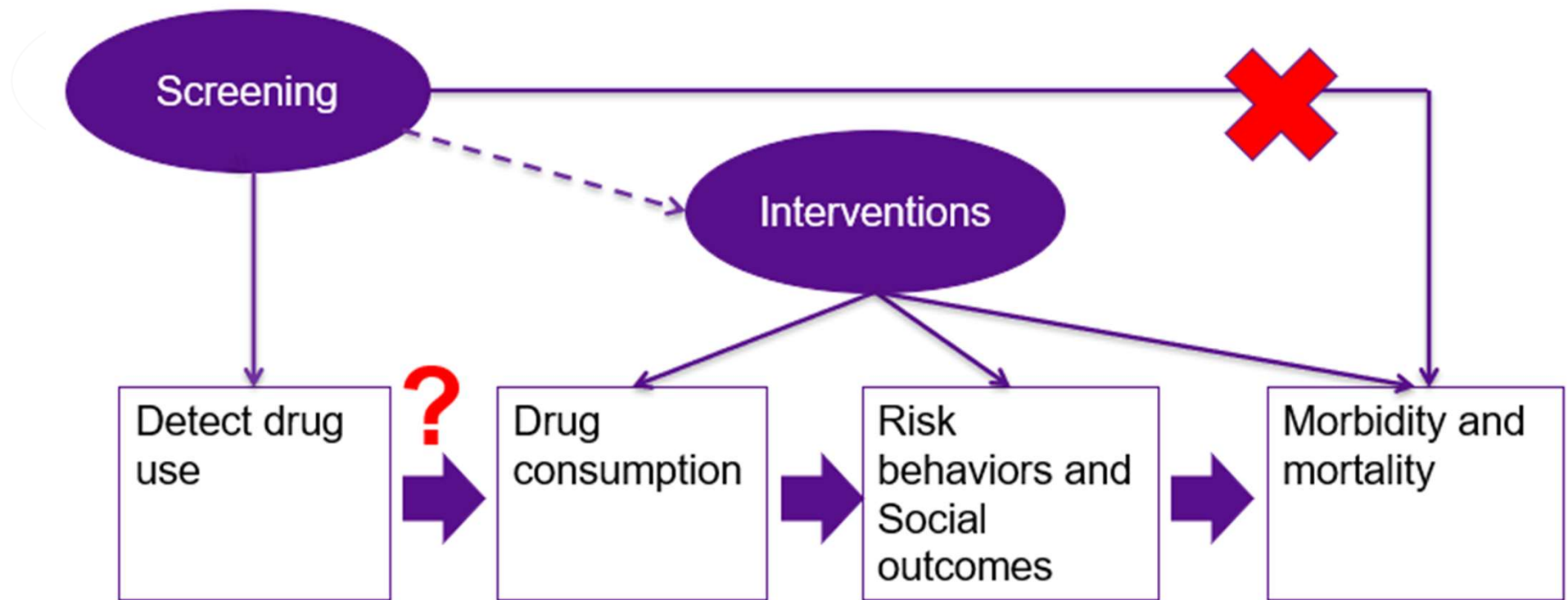
Alcohol Screening and Brief Intervention

- Reduces hazardous and harmful alcohol consumption
- Decreases health care utilization
 - Fewer hospitalizations
 - Lower costs
- Ranked as one of the five most effective clinical preventive services
- Best evidence in primary care

USPSTF Evaluation of Drug Screening



USPSTF Evaluation of Drug Screening



USPSTF Drug Screening Recommendation

- Grade B recommendation (moderate evidence and certainty):
 - Screen adults 18+
 - Screen by asking questions about unhealthy drug use, not toxicology testing
 - Screen when ‘services for accurate diagnosis, effective treatment, and appropriate care can be offered or referred.’

Screening for Unhealthy Drug Use
Neither an Unreasonable Idea Nor an Evidence-Based Practice

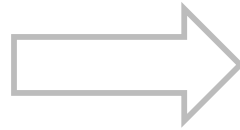
Richard Saitz, MD, MPH

JAMA June 9, 2020 Volume 323, Number 22



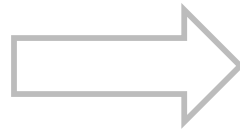
Value of Identifying Substance Use

Screening



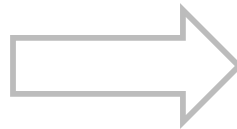
Reduce consumption

- Brief intervention
- Treatment



Clinical care

- Patient safety
- Accurate diagnoses
- Treatment outcomes
- Prevention



Population health

- Prevalence, surveillance
- Inform service design

Reducing Stigma

- Normalize asking about substance use as a health behavior
- Universal screening can avoid making patients feel targeted
- Focus on health and prevention
- State how you can help
- Respect privacy

Depression, tobacco, drugs, alcohol, and risky behaviors affect your health.
To provide you the best care possible, we need to ask about them.
So we ask – everyone. The conversation can also start with you.
We are here to help!

Deprimirse, fumar, consumir drogas y licor y comportarse en forma arriesgada, son factores que afectan su salud. Para que damos brindarle la mejor atención que nos sea posible, debemos preguntarle acerca de estos factores. Por lo tanto, nosotros hacemos estas mismas preguntas a todos. Usted también puede iniciar el tema de conversación. ¡Estamos aquí para servirle

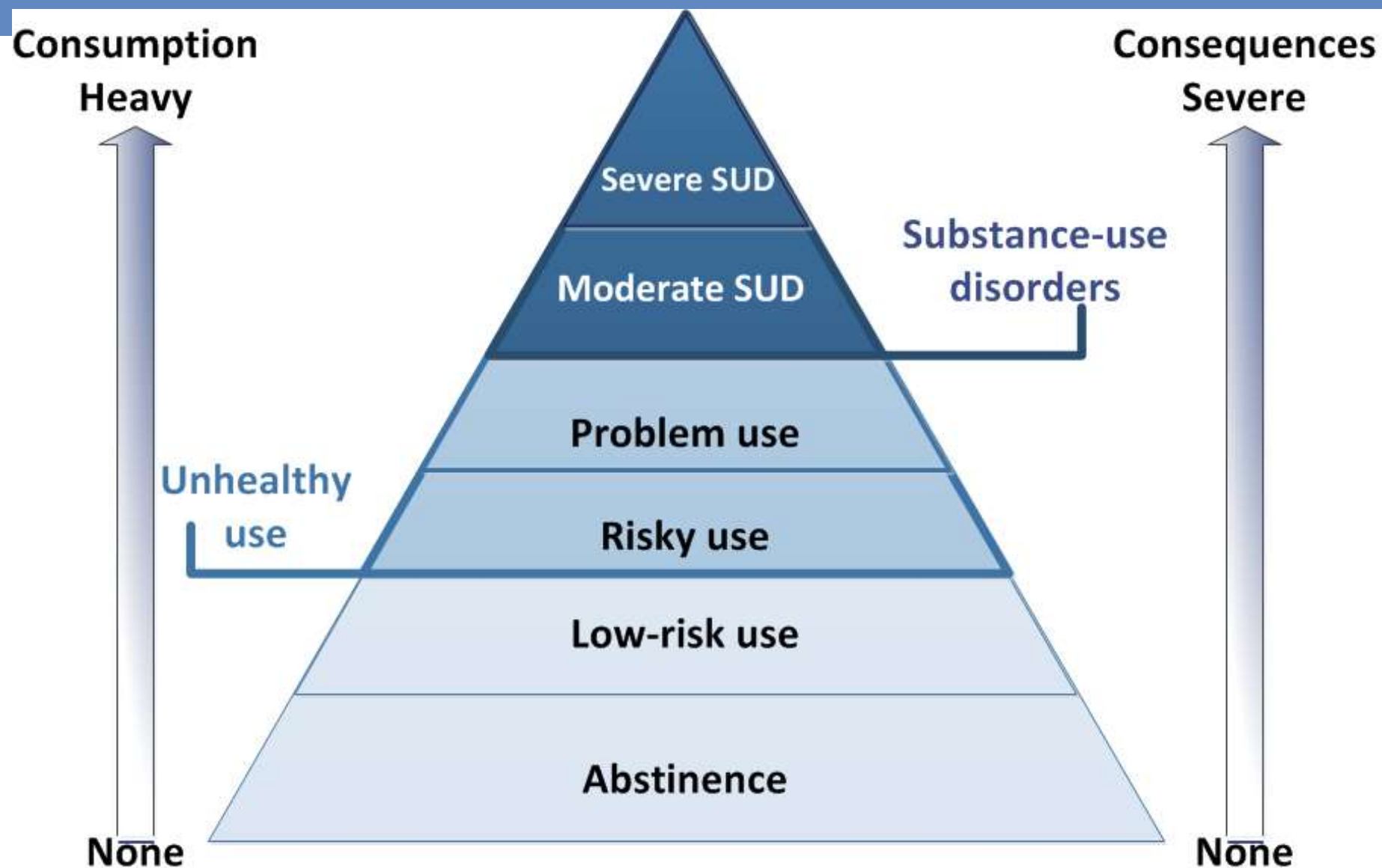


EVERYONE.

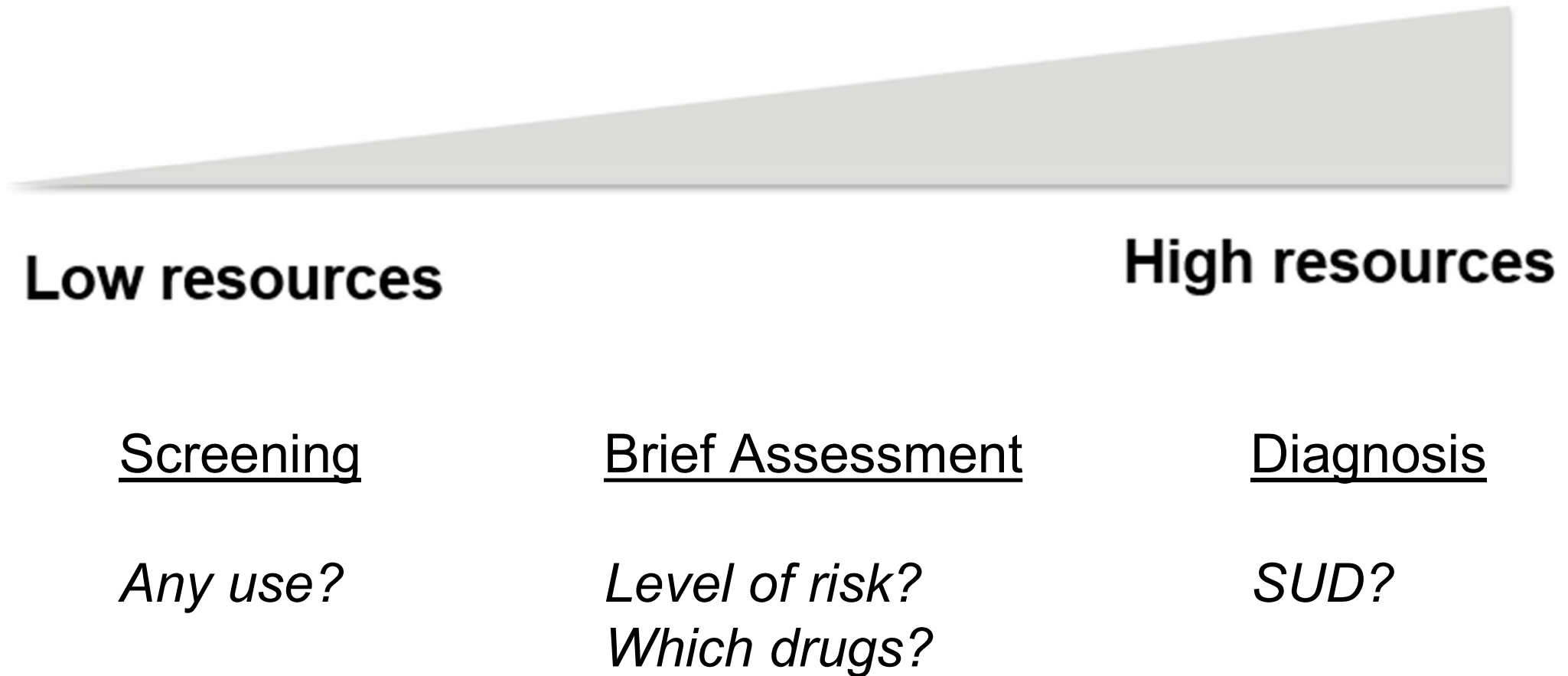
Nosotros les hacemos estas mismas preguntas a todos.

Screening Tools for Medical Settings

Continuum of Substance Use



Characterizing Screening Tools



Characterizing Screening Tools

SISQs
TAPS-1

AUDIT, AUDIT-C
TAPS Tool

Low resources

High resources

Screening

Any use?

Brief Assessment

*Level of risk?
Which drugs?*

Diagnosis

SUD?

Tobacco, Alcohol, Prescription Medication, and other Substance (TAPS) Tool

Screening (TAPS-1)

4-item Screener

- Tobacco
- Alcohol
- Rx drugs
- Illicit drugs



Assessment (TAPS-2)

Modified ASSIST-Lite

- 7 substance classes
- Current use
- Problems

Self-administered (iPad)
or
Interviewer-administered

Performance of the Tobacco, Alcohol, Prescription Medication, and Other Substance Use (TAPS) Tool for Substance Use Screening in Primary Care Patients

Jennifer McNeely, MD, MS; Li-Tzy Wu, ScD, RN, MA; Geetha Subramaniam, MD; Gaurav Sharma, PhD; Laretta A. Cathers, PhD; Dace Svikis, PhD; Luke Sleiter, MPH; Linnea Russell, BA; Courtney Nordeck, BA; Anjalee Sharma, MSW; Kevin E. O'Grady, PhD; Leah B. Bouk, CCRC; Carol Cushing, BBA, RN; Jacqueline King, MS; Aimee Wahle, MS; and Robert P. Schwartz, MD

- NIDA Clinical Trials Network study
- 2,000 adults, enrolled in 5 primary care clinics
- Completed TAPS Tool, interviewer-administered and iPad-administered versions
- Gold standard measure = modified World Mental Health Composite International Diagnostic Interview (CIDI)
- Measures: problem use, SUD

TAPS-1 iPad Example

In the PAST YEAR, how often have you used any prescription medications just for the feeling, more than prescribed or that were not prescribed for you?

Never

Less than monthly

Monthly

Weekly

Daily or almost daily

TAPS-2 iPad Example

In the PAST 3 MONTHS, did you use a medication for anxiety or sleep (for example, Xanax, Ativan, or Klonopin) not as prescribed or that was not prescribed for you?

☒ No☐ Yes

In the PAST 3 MONTHS, did you use a prescription opiate pain reliever (for example, Percocet, Vicodin) not as prescribed or that was not prescribed for you?

☐ No☒ Yes

In the PAST 3 MONTHS, did you use a medication for ADHD (for example, Adderall, Ritalin) not as prescribed or that was not prescribed for you?

☒ No☐ Yes

TAPS Tool: Validity for Problem Use

Self-administered

N=2,000

Substance	TAPS Score ≥ 1 n (%)	Sensitivity (95% CI)	Specificity (95% CI)
Tobacco	766 (38%)	0.92 (0.89, 0.94)	0.87 (0.85, 0.89)
Alcohol	713 (36%)	0.77 (0.73, 0.81)	0.77 (0.75, 0.79)
Marijuana	312 (16%)	0.79 (0.73, 0.84)	0.93 (0.91, 0.94)
Cocaine, Meth	112 (6%)	0.73 (0.64, 0.80)	0.99 (0.98, 0.99)
Heroin	59 (3%)	0.77 (0.65, 0.86)	1.00 (0.99, 1.00)
Rx Opioids	82 (4%)	0.61 (0.47, 0.73)	0.98 (0.97, 0.98)
Sedatives	80 (4%)	0.66 (0.49, 0.80)	0.97 (0.96, 0.98)

TAPS Tool: Validity for SUD

Self-administered

N=2,000

Substance	TAPS Score ≥ 2 n (%)	Sensitivity (95% CI)	Specificity (95% CI)
Tobacco	539 (27%)	0.73 (0.69, 0.77)	0.89 (0.87, 0.90)
Alcohol	470 (24%)	0.74 (0.68, 0.79)	0.85 (0.83, 0.86)
Marijuana	190 (10%)	0.70 (0.62, 0.77)	0.95 (0.94, 0.96)
Cocaine, Meth	81 (4%)	0.60 (0.50, 0.69)	0.99 (0.99, 0.99)
Heroin	47 (2%)	0.66 (0.53, 0.77)	1.00 (0.99, 1.00)
Rx Opioids	42 (2%)	0.48 (0.33, 0.63)	0.99 (0.98, 0.99)
Sedatives	55 (3%)	0.54 (0.34, 0.72)	0.98 (0.97, 0.99)

Validation of the TAPS- 1: A Four-Item Screening Tool to Identify Unhealthy Substance Use in Primary Care

Jan Gryczynski, PhD¹, Jennifer McNeely, MD, MS², Li-Tzy Wu, ScD³, Geetha A. Subramaniam, MD⁴, Dace S. Svikis, PhD⁵, Laurretta A. Cathers, PhD⁵, Gaurav Sharma, PhD⁶, Jacqueline King, MS⁶, Eve Jelstrom, CRNA, MBA⁶, Courtney D. Nordeck, BA¹, Anjalee Sharma, MSW¹, Shannon G. Mitchell, PhD¹, Kevin E. O'Grady, PhD⁷, and Robert P. Schwartz, MD¹

J Gen Intern Med 32(9):990–6

Substance	Sensitivity	Specificity	AUC
Tobacco	0.98	0.80	0.89
Alcohol	0.85	0.70	0.77
Illicit drugs	0.91	0.89	0.90
Rx drugs	0.85	0.91	0.88

Feasibility and Acceptability of Electronic Self-Administered Screening

Adam et al. *Addict Sci Clin Pract* (2019) 14:39
<https://doi.org/10.1186/s13722-019-0167-z>

Addiction Science &
Clinical Practice

RESEARCH

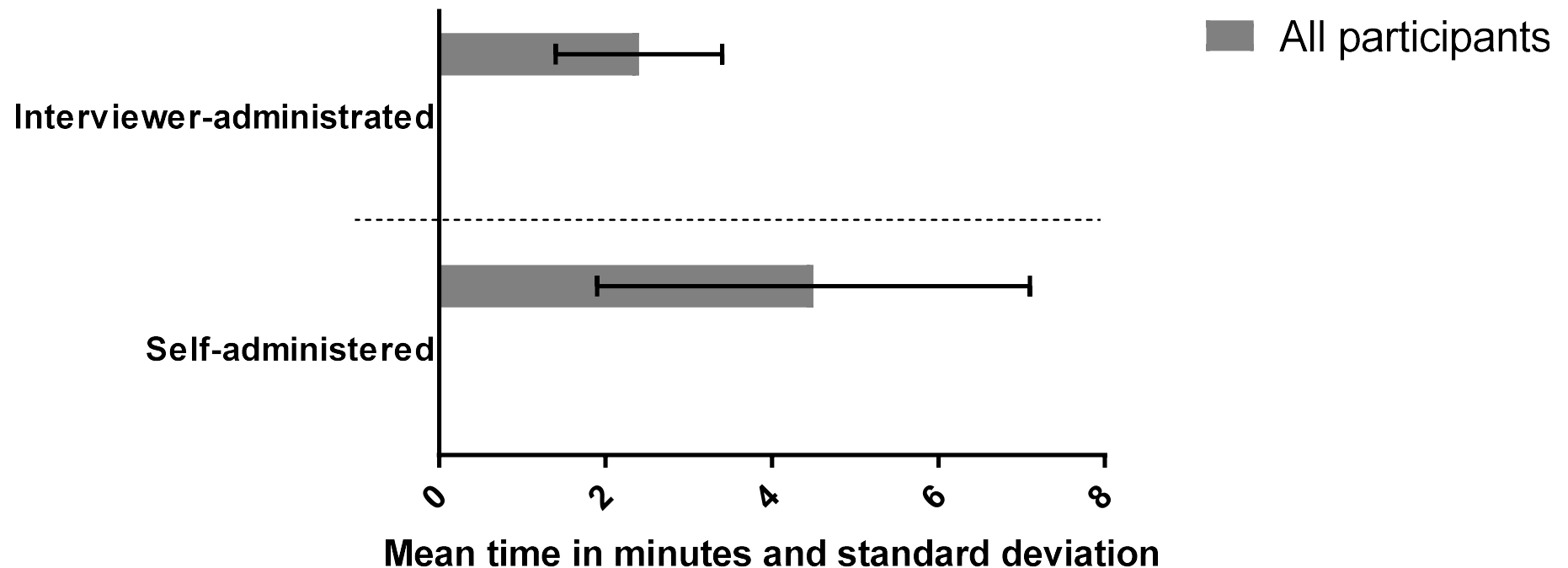
Open Access



Electronic self-administered screening for substance use in adult primary care patients: feasibility and acceptability of the tobacco, alcohol, prescription medication, and other substance use (myTAPS) screening tool

Angéline Adam^{1*} , Robert P. Schwartz², Li-Tzy Wu³, Geetha Subramaniam⁴, Eugene Laska⁵, Gaurav Sharma⁶, Saima Mili¹ and Jennifer McNeely¹

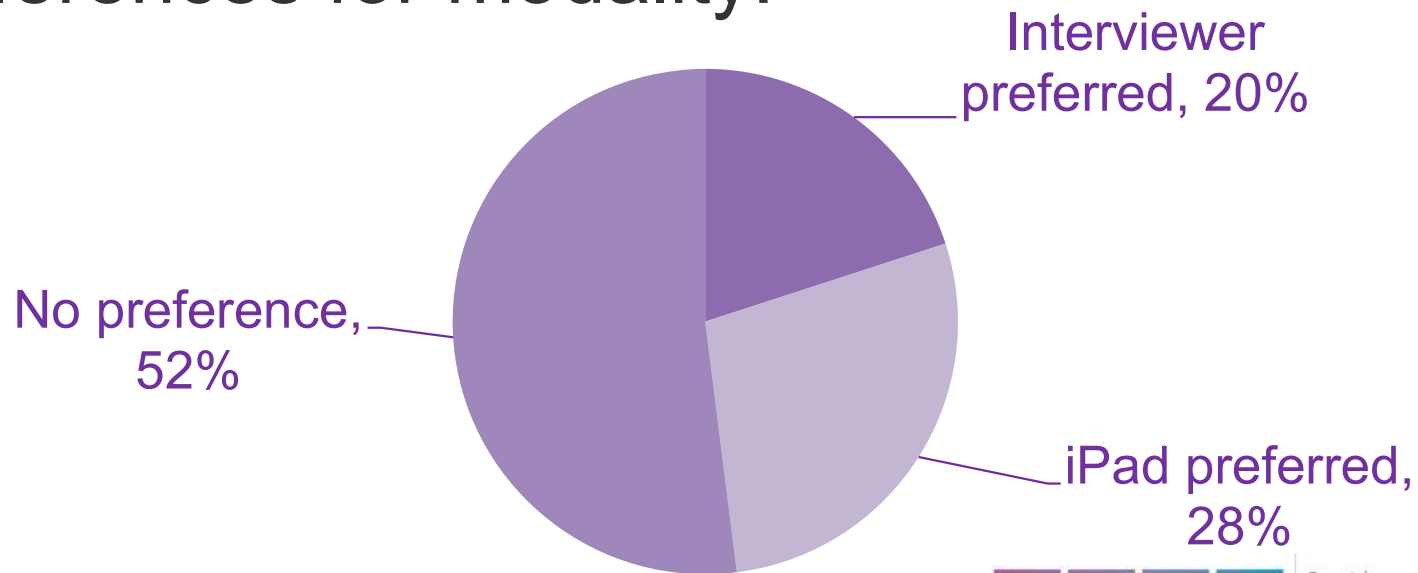
Time Required to Complete TAPS Tool



Interviewer format: 90% completed the TAPS tool in ≤ 3 min.
Self-administered format: 90% completed in ≤ 7 min.

Acceptability to Adult Primary Care Patients

- 98% felt comfortable answering the TAPS Tool questions
- 95% would be comfortable sharing the results with their doctor
- Preferences for modality:



NIDA TAPS Tool Website

<https://www.drugabuse.gov/taps/#/>

<https://www.drugabuse.gov/taps/#/>

TAPS

Tobacco, Alcohol, Prescription medication, and other Substance use Tool

The Tobacco, Alcohol, Prescription medication, and other Substance use (TAPS) Tool consists of a combined screening component (TAPS-1) followed by a brief assessment (TAPS-2) for those who screen positive.

This tool:

- Combines screening and brief assessment for commonly used substances, eliminating the need for multiple screening and lengthy assessment tools
- Provides a two stage brief assessment adapted from the NIDA quick screen and brief assessment (adapted ASSIST-lite)
- May be either self-administered directly by the patient or as an interview by a health professional
- Uses an electronic format (available here as an online tool)
- Uses a screening component to ask about frequency of substance use in the past year
- Facilitates a brief assessment of past 90-day problem use to the patient

More Information About This Tool ▼

Frequently Asked Questions About Screening ▼

Use of the TAPS Tool to Screen for OUD in Patients Receiving Chronic Opioids

A Brief Screening Tool for Opioid Use Disorder: EMPOWER Study Expert Consensus Protocol

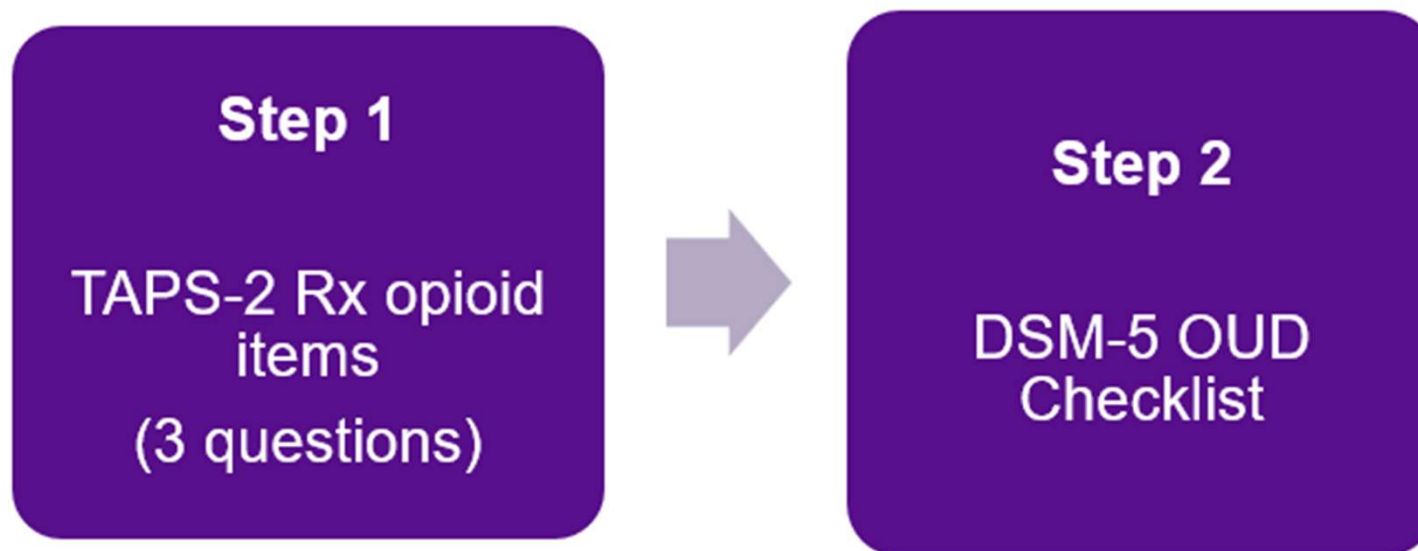
Dokyoung S. You¹, Aram S. Mardian^{2,3}, Beth D. Darnall¹, Chwen-Yuen A. Chen⁴, Korina De Bruyne⁵, Pamela D. Flood¹, Ming-Chih Kao¹, Anita D. Karnik⁶, Jennifer McNeely⁷, Joel G. Porter⁸, Robert P. Schwartz⁹, Richard L. Stieg^{10†} and Sean C. Mackey^{1}*



PERSPECTIVE

published: 31 March 2021

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Alternatives to the TAPS Tool

Single Item Screening Questions (SISQs)

How many times in the past year have you had X or more drinks in a day? (X=5 for men, 4 for women)

How many times in the past year have you used an illegal drug or used a prescription medication for non-medical reasons?

- Identify unhealthy use (any response >0)
- Interviewer or self-administered

Substance	Sensitivity	Specificity
Alcohol	73-84%	78-85%
Drug	71-85%	94-96%

Cannabis Single-item Screener (SIS-C)

“How often in the past year did you use marijuana?”

Potential cut points for the Single-Item Screen-Cannabis ^c	Prevalence of response		Screening performance for past-year CUD		
	Unweighted, No.	Weighted, % (SE)	Any CUD ^a		
			Sensitivity, %	Specificity, %	AUC (95% CI) ^d
Never	99	78.1 (2.0)	NA	NA	0.89 (0.78-0.96)
≥Less than monthly	99	9.6 (1.2)	88	83	
≥Monthly	118	3.3 (0.4)	71	92	
≥Weekly	376	4.0 (0.4)	57	94	
Daily or almost daily	996	5.1 (0.4)	36	97	

Alcohol: AUDIT and AUDIT-C

- 10 items (AUDIT-C = first 3 items)
- Identifies unhealthy use and likely alcohol use disorder
- Interviewer and self-administered

	Unhealthy use		Alcohol use disorder	
	Alcohol use disorder			
AUDIT	60-85%	88-98%	70-95%	72-95%
AUDIT-C	73-86%	89-91%	87-88%	75-85%

Implementation in Medical Settings

Feasibility of Screening

Multiple barriers:

- Time
- Workflow/Systems
- Lack of knowledge
- Provider attitudes
- Discomfort/Stigma

Screeners should be:

- Brief
- Accurate
- Capture range of severity
- Integrated w/ EMR
- Matched to clinical workflow

Sterling S, Addict Sci Clin Pract 2012
Anderson P, J Stud Alcohol 2004
Johnson M, J Public Health 2011
CASA, 'Missed Opportunity' 2011
Spandorfer JM, J Fam Practice 1999
McNeely J, Addict Sci Clin Pract 2018

NIDA CTN

Common Data Elements

- Standardized substance use information for incorporation into EHRs
- Validated tools
- Feasible for use in medical settings

<https://cde.drugabuse.gov/>

Self-administered screening

- Time and workflow
- Quality and fidelity
- Patient comfort
- Electronic health record integration
- Potential to tailor for patient characteristics (e.g. language, demographics, literacy)

Bradley KA et al., JGIM 2011

Williams EC et al., Addiction Sci Clin Practice, 2013

Tourangeau R and Smith TW, Pub Opinion Quarterly 1996

Spear SE et al., Substance Abuse 2016

Original Investigation | Substance Use and Addiction

Comparison of Methods for Alcohol and Drug Screening in Primary Care Clinics

Jennifer McNeely, MD, MS; Angéline Adam, MD; John Rotrosen, MD; Sarah E. Wakeman, MD; Timothy E. Wilens, MD; Joseph Kannry, MD; Richard N. Rosenthal, MD; Aimee Wahle, MS; Seth Pitts, BA; Sarah Farkas, MA; Carmen Rosa, MS; Lauren Peccoralo, MD; Eva Waite, MD; Aida Vega, MD; Jennifer Kent, MD; Catherine K. Craven, PhD; Tamar A. Kaminski, BS; Elizabeth Firmin, BA; Benjamin Isenberg, BA; Melanie Harris, BA; Andre Kushniruk, PhD; Leah Hamilton, PhD

NIDA Clinical Trials Network Study (CTN-0062)

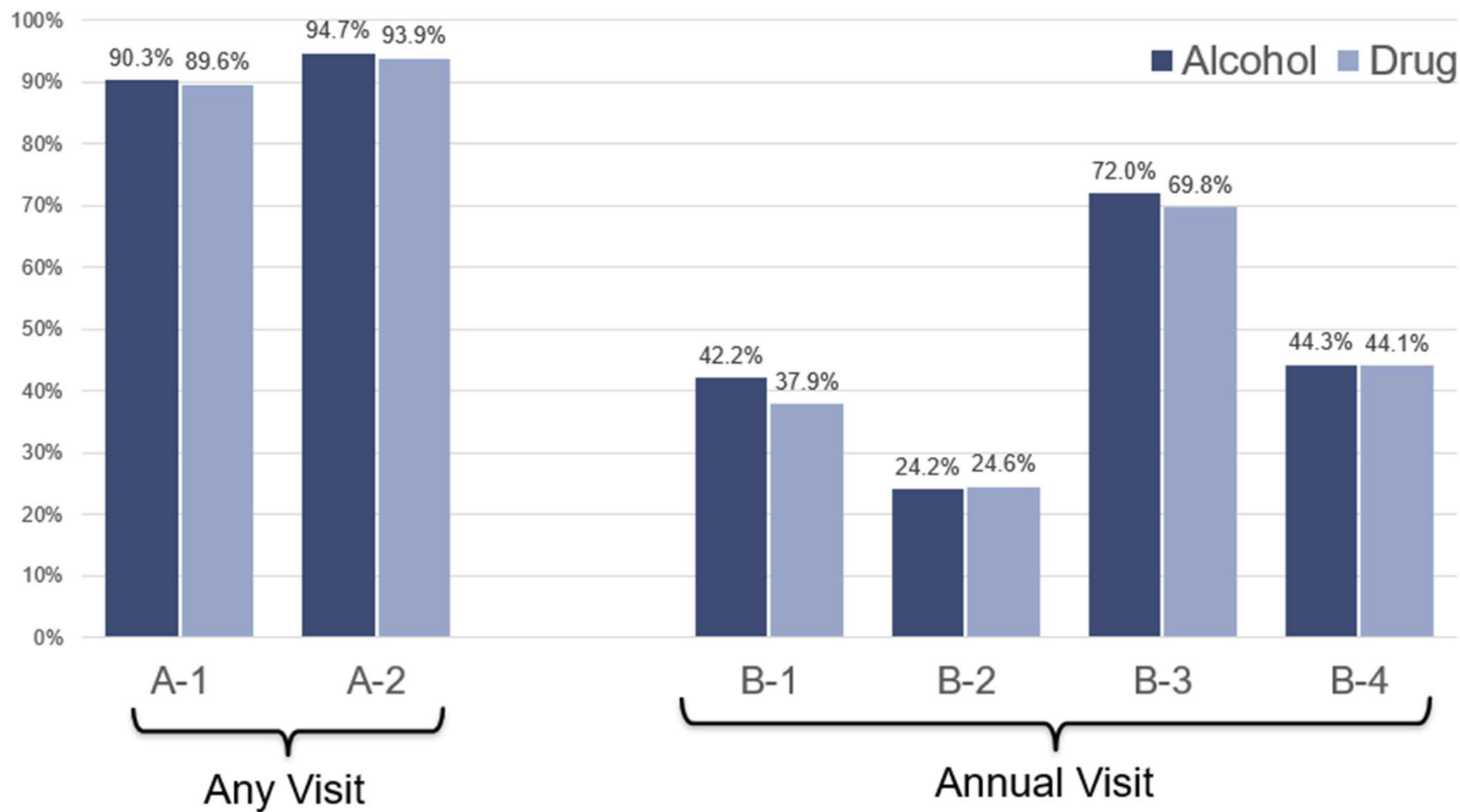
- Objective: Study the feasibility of implementing EHR-integrated screening in primary care
- Study Design: 4-phase implementation study
- Setting: 6 primary care clinics in 2 large academic health systems
- Screening tools: SISQ + AUDIT-C/DAST-10

Screening Rates Across all Sites

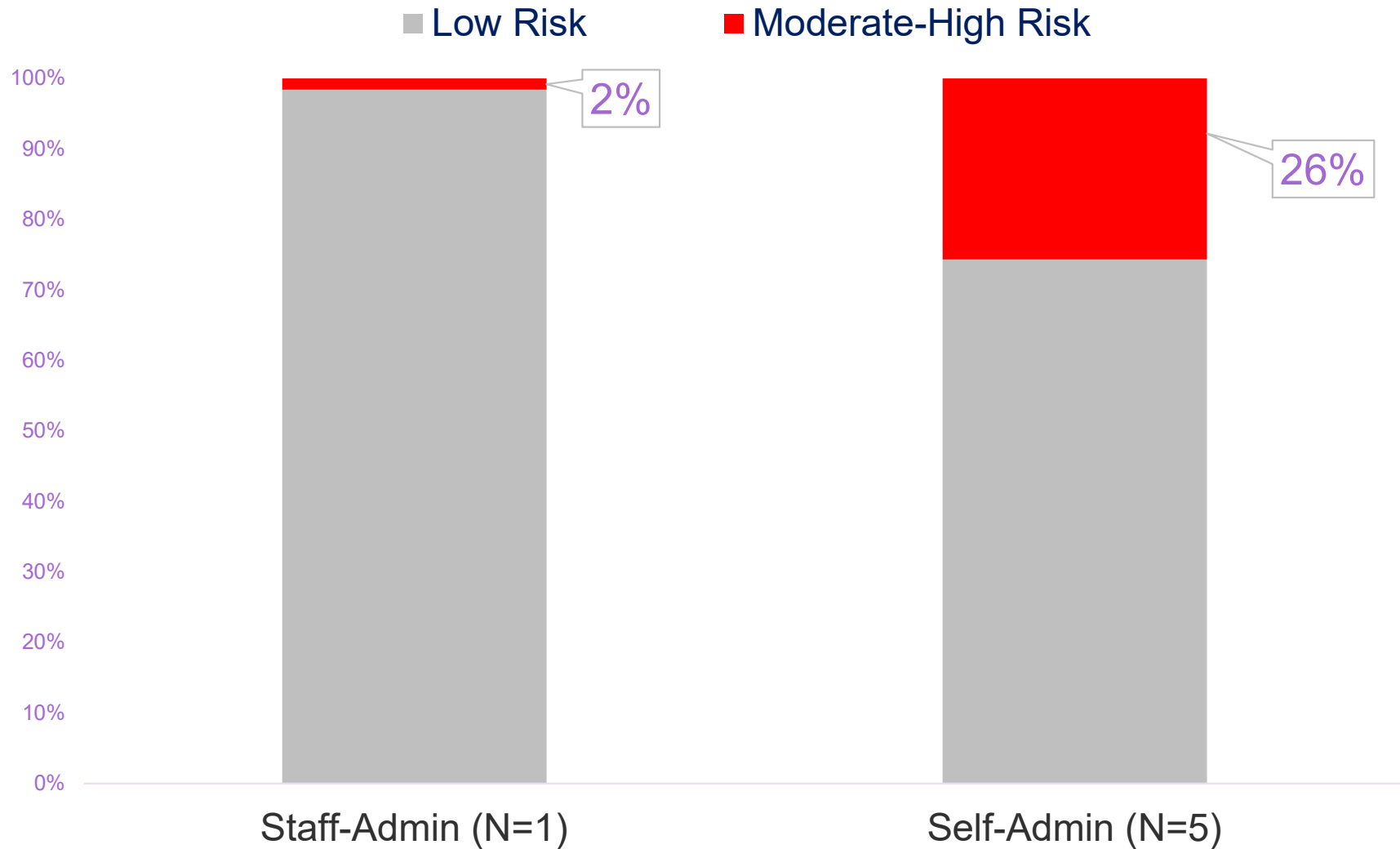
72% of patients were screened, across all sites

	Clinic					
	A-1	A-2	B-1	B-2	B-3	B-4
Alcohol	(15,687/17,373) 90.3%	(24,270/25,632) 94.7%	(3,016/7,139) 42.2%	(2,648/10,932) 24.2%	(18,214/25,311) 72.0%	(2,331/6,207) 37.6%
Drug	(15,558/17,373) 89.6%	(24,064/25,632) 93.9%	(2,708/7,139) 37.9%	(2,689/10,932) 24.6%	(17,670/25,311) 69.8%	(2,324/6,207) 37.4%

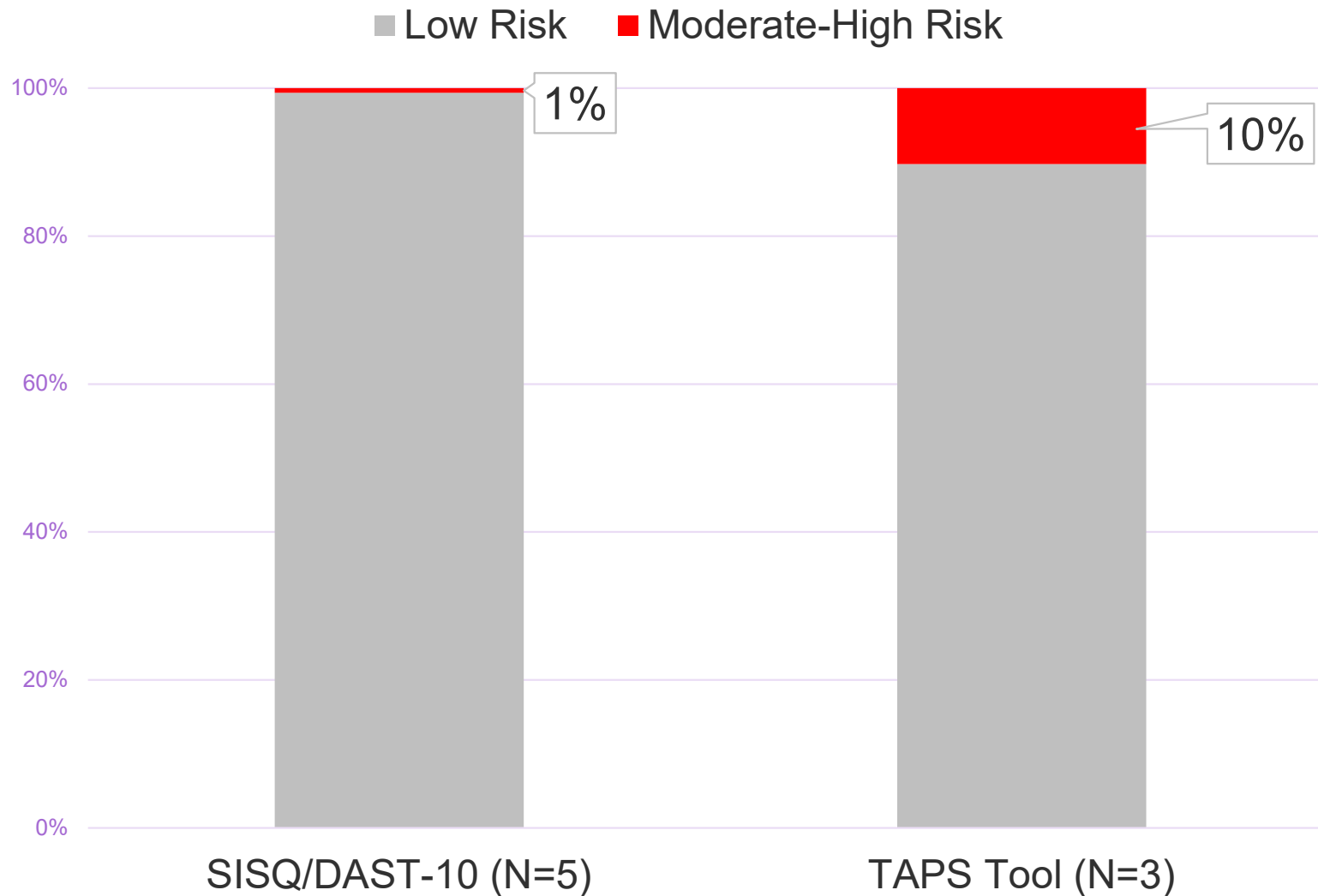
Screening Rates were Higher When Done at any Visit Type



Better Detection of Alcohol Use with Self-administered Screening



Better Detection of Drug Use with TAPS Tool, in ancillary study



All clinics used self-administered screening



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Best Practices for Ensuring the Quality of Screening

- Use validated screening tools
- Communicate that the goal is to help patients improve health
 - Posters, flyers about substance use services
- Ensure privacy during screening
- Use self-administered screening
- Tell patients what happens with their information

What if Self-administered Screening is not Feasible?

- Integrate with existing workflows
- Ensure privacy
- Deliver alongside other screeners (depression, SDOH, etc.)
- Complete it with a trusted health care provider if possible

Summary

- Guidelines recommend screening adults for alcohol and drug use in primary care.
- Identifying substance use is important for clinical care and informing the design of services.
- Existing screening tools can be recommended for use in medical settings.
- Choosing the right screening tool and modality can help overcome implementation barriers.
- Screening should be followed by education, counseling using a motivational approach, and offer of treatment when indicated.

<https://alcoholdrugscreening.simmersion.com/>



National Institute on Drug Abuse (NIDA)
Clinical Trials Network (CTN) Dissemination Initiative

Log In

My Screening Plan

In Collaboration with

NYU Langone
Health

IMPLEMENTING DRUG AND ALCOHOL SCREENING IN PRIMARY CARE

Alcohol and drug use are among the top ten causes of preventable death in the United States. Screening is the first step in identifying and addressing substance use as part of routine medical care. This website will guide your team through the process of developing a plan for implementing screening in your practice.



Create Your Plan



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Create Clinic Plan

Screening is the first step in identifying and addressing substance use as part of routine medical care. This guide includes three sections to help you identify the most effective screening method for your clinic.

*While you can explore these topics in any order, for the most comprehensive plan, select **Begin Planning** and navigate between pages using the **Next** and **Previous** buttons.*

Clinic Details



Plan Approach



Monitor Adoption





Plan Screening Approach

What **substances** does the clinic want to screen for?

Both Alcohol and Drugs

What **screening instrument(s)** does the clinic want to use?

TAPS Tool

How should patients **complete** the screening?

Patient self-administered (electronic)

How will screening responses **be entered** into the Electronic Health Record?

Patient-Entered

Where will the screening information appear in the Electronic Health Record?

Intake/Rooming

How **frequently** does the clinic want to screen?

Once per year

During what **types of visits** should the clinic screen?

Routine primary care

Are there resources to **customize** the Electronic Health Records?

Process and Timeline, Design and Development, Testing



Monitor Screening Adoption

Who will be **responsible** for monitoring screening adoption?

Leader of Screening Initiative

What **information** should be monitored?

Screening Rate, Screening Results, Treatment Referrals

What results will be **shared** with providers?

Clinic-Wide Reports

Resources

- USPSTF screening guidelines

<https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/unhealthy-alcohol-use-in-adolescents-and-adults-screening-and-behavioral-counseling-interventions>

<https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/drug-use-illicit-screening>

- NIDA TAPS Tool <https://www.drugabuse.gov/taps/#/>

- NIDA Common Data Elements <https://cde.drugabuse.gov/>

- McNeely and Hamilton, Screening for Unhealthy Alcohol and Drug Use in General Medicine Settings. Med Clin N Am 106 (2022)

Thank you!

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- John Rotrosen
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- Robert Schwartz
- Geetha Subramaniam
- Shiela Strauss
- Charles Cleland
- Joshua Lee
- Perry Halkitis

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- Arianne Ramautar
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- Rubina Khan
- Linnea Russell
- Saima Mili

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NCATS UL1 R000038

NIDA P30 DA011041

Questions?

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PCSS Mentoring Program

- PCSS Mentor Program is designed to offer general information to clinicians about evidence-based clinical practices in prescribing medications for opioid use disorder.
- PCSS Mentors are a national network of providers with expertise in **addictions, pain, evidence-based treatment including medications for opioid use disorder (MOUD)**.
- 3-tiered approach allows every mentor/mentee relationship to be unique and catered to the specific needs of the mentee.
- No cost.

For more information visit:

<https://pcssNOW.org/mentoring/>

PCSS Discussion Forum

Have a clinical question?

Ask a Colleague

A simple and direct way to receive an answer related to medications for opioid use disorder. Designed to provide a prompt response to simple practice-related questions.

<http://pcss.invisionzone.com/register>



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PCSS is a collaborative effort led by the American Academy of Addiction Psychiatry (AAAP) in partnership with:

Addiction Technology Transfer Center	American Society of Addiction Medicine
American Academy of Family Physicians	American Society for Pain Management Nursing
American Academy of Pain Medicine	Association for Multidisciplinary Education and Research in Substance use and Addiction
American Academy of Pediatrics	Council on Social Work Education
American Pharmacists Association	International Nurses Society on Addictions
American College of Emergency Physicians	National Association for Community Health Centers
American Dental Association	National Association of Social Workers
American Medical Association	National Council for Mental Wellbeing
American Osteopathic Academy of Addiction Medicine	The National Judicial College
American Psychiatric Association	Physician Assistant Education Association
American Psychiatric Nurses Association	Society for Academic Emergency Medicine



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Educate. Train. Mentor



[@PCSSProjects](https://twitter.com/PCSSProjects)



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www.pcssNOW.org

pcss@aaap.org

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