



ATTC HHS REGION 10
Northwest



Thank you for joining us! The webinar will begin shortly.

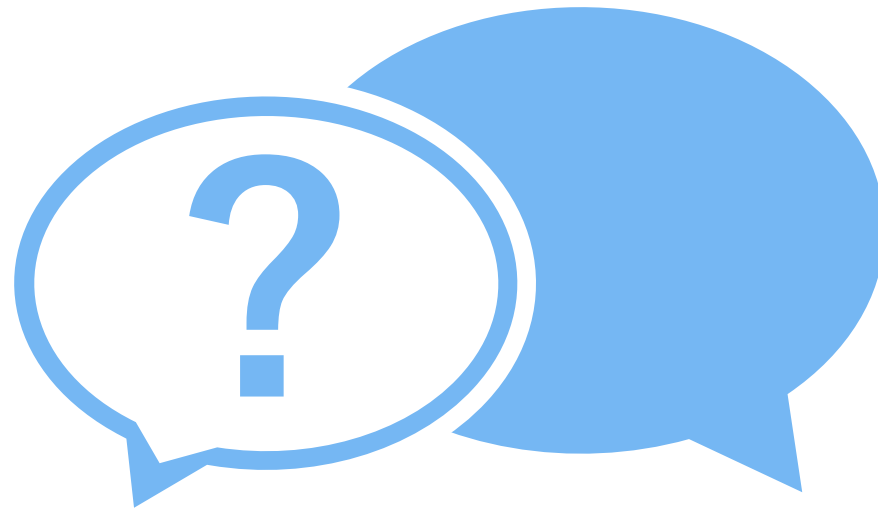
Northwest ATTC presents:

Integrating Cannabis Use Prevention and Treatment into Primary Care

- **Participants are automatically muted during this presentation**
- **Got questions?** Type them into the chat box at any time and they will be answered at the end of the presentation.
- An ADA-compliant recording of this presentation will be made available on our website at: <http://atcnetwork.org/northwest>

Questions?

Please type them in the chat box!



Surveys

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It only takes **1 minute** to complete!



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Viewing Groups:

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Your certificate will be emailed within a week to the address you registered with.

Today's Presenters



Julie Angerhofer, PhD, MPH

Dr. Angerhofer is an Associate Investigator at KPWHRI and an Affiliate Assistant Professor at the University of Washington whose research centers on improving care delivery for mental health and substance use disorders in partnership with people who provide and receive healthcare. Her research portfolio integrates qualitative and statistical methods to evaluate suicide prevention and addiction services within large health systems to inform implementation and improve clinical practice.



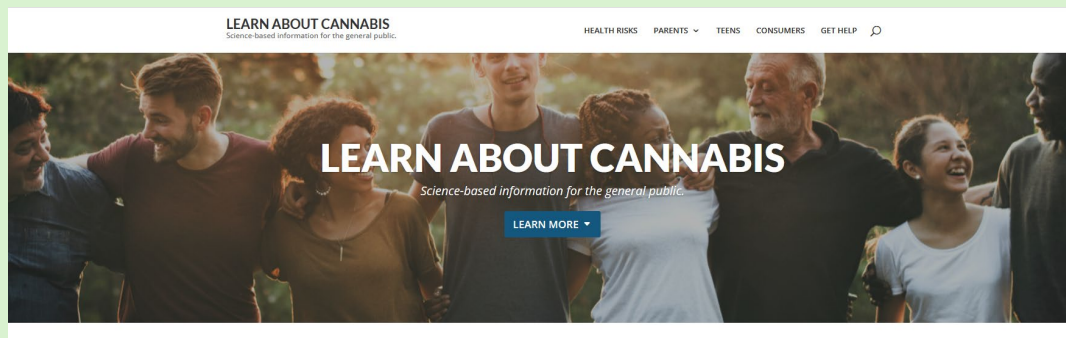
Theresa Matson, PhD, MPH

Dr. Matson is a Collaborative Scientist at KPWHRI and an Affiliate Assistant Professor at the University of Washington whose work focuses on integrating addiction health services into primary care to make services for substance use more accessible and equitable. Her research portfolio specializes in validating practical screening tools and leveraging real-world data from electronic health records to identify gaps in the diagnosis and treatment of substance use disorders.



ADAI
ADDICTIONS, DRUG &
ALCOHOL INSTITUTE

CANNABIS EDUCATION & RESEARCH PROGRAM



<https://adai.uw.edu/cerp/>
<https://www.learnaboutcannabiswa.org/>

- Conduct public health-oriented research projects that inform decision-making and priority-setting.
- Disseminate cannabis-related science-based information to community organizations, health and educational professionals, policymakers, and the community at large.

Integrating Cannabis Use Prevention and Treatment into Primary Care

Theresa Matson, PhD, MPH

Julie Angerhofer, PhD, MPH

We couldn't have done this work without...

- People who received health care from Kaiser Permanente Washington
- Care delivery leaders, providers, and teams
- Research and administrative team members
- Sponsors
 - Agency for Healthcare Research and Quality R18 HS023173 (SPARC trial)
 - National Institute on Alcohol Abuse and Alcoholism K24 AA022128
 - National Institute on Alcohol Abuse and Alcoholism K01 AA023859 (secondary analyses)
 - National Institute on Drug Abuse 5R01DA047312-03
 - National Institute on Drug Abuse, Clinical Trials Network (CTN-007 and CTN-113)



"No one can whistle a symphony. It takes a whole orchestra to play it." — Halford Luccock.

A little more about us & why we do this work...



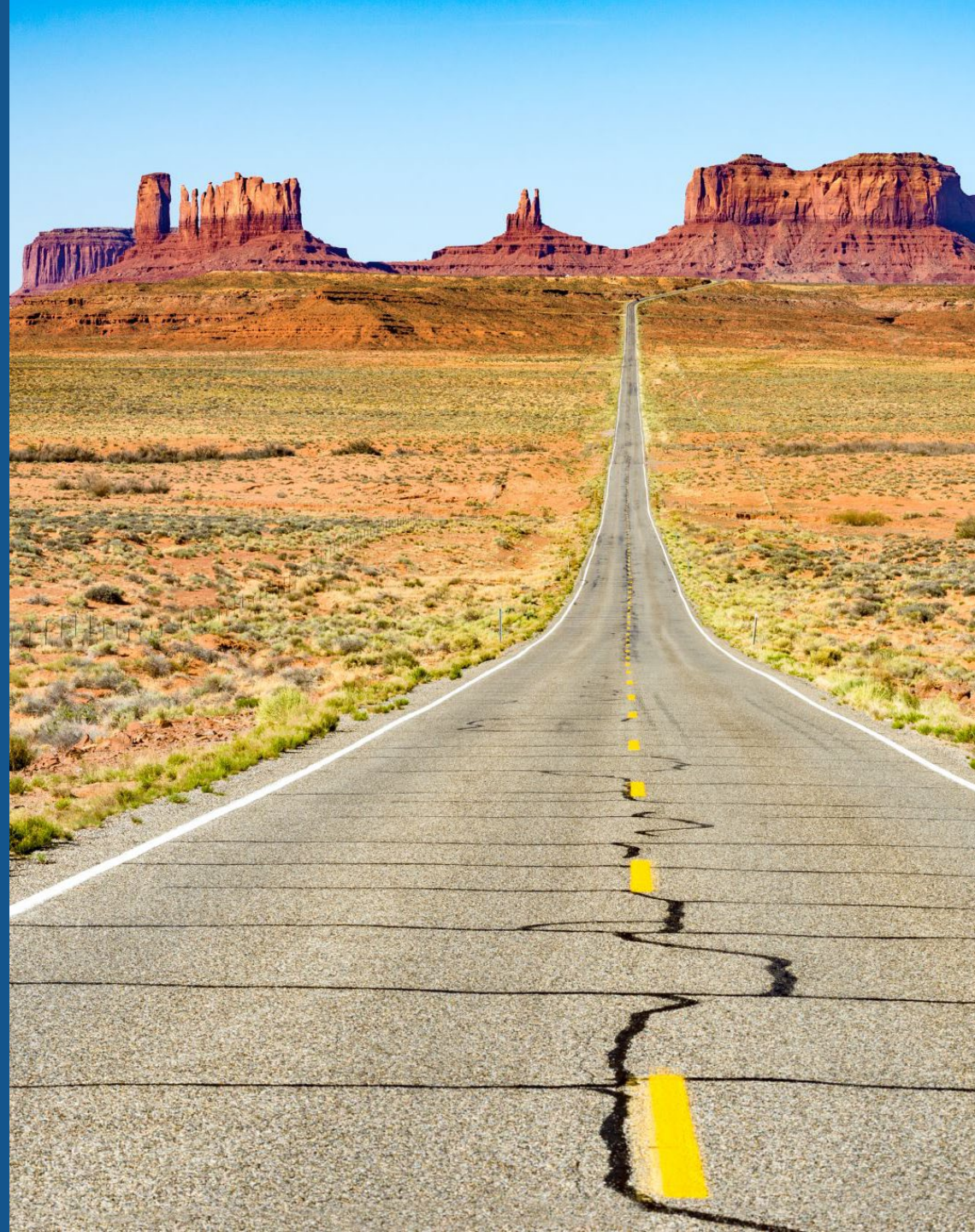
- Research Investigator, Kaiser Permanente Washington Health Research Institute
- Scientist in Residence, Kaiser Permanente Center for Gun Violence Research & Education
- Affiliate Assistant Professor School of Public Health
- Lived-experiences with immediate family members who have struggled with substance use disorders (past & presently)
- Professional experiences conducting collaborative science and co-designing care delivery improvements with clinicians & patients



- Collaborative Scientist, Kaiser Permanente Washington Health Research Institute
- Affiliate Assistant Professor School of Public Health
- Lived experience with navigating health systems in partnership with immediate family member who have struggled with substance use disorder
- Professional experience and training in implementation science, advanced analytic methods

ROADMAP

- Cannabis use & cannabis use disorder (CUD)
- Integrating care for cannabis in primary care
 - New primary care workflows
 - 3 Key implementation strategies
 - Evaluation Methods & Outcomes
- Validation of Screening/Assessment Tool
- Deeper dive into chart notes



Patterns of Cannabis Use and Associated Risks



25 states, 2 territories and 1 district
have legalized adult cannabis use
Including Washington State



17.7 million used cannabis daily
Prevalence of daily cannabis use had
more than doubled in last two decades



25-50% of people who use cannabis
daily develop cannabis use disorder
About 2-5% of the US population

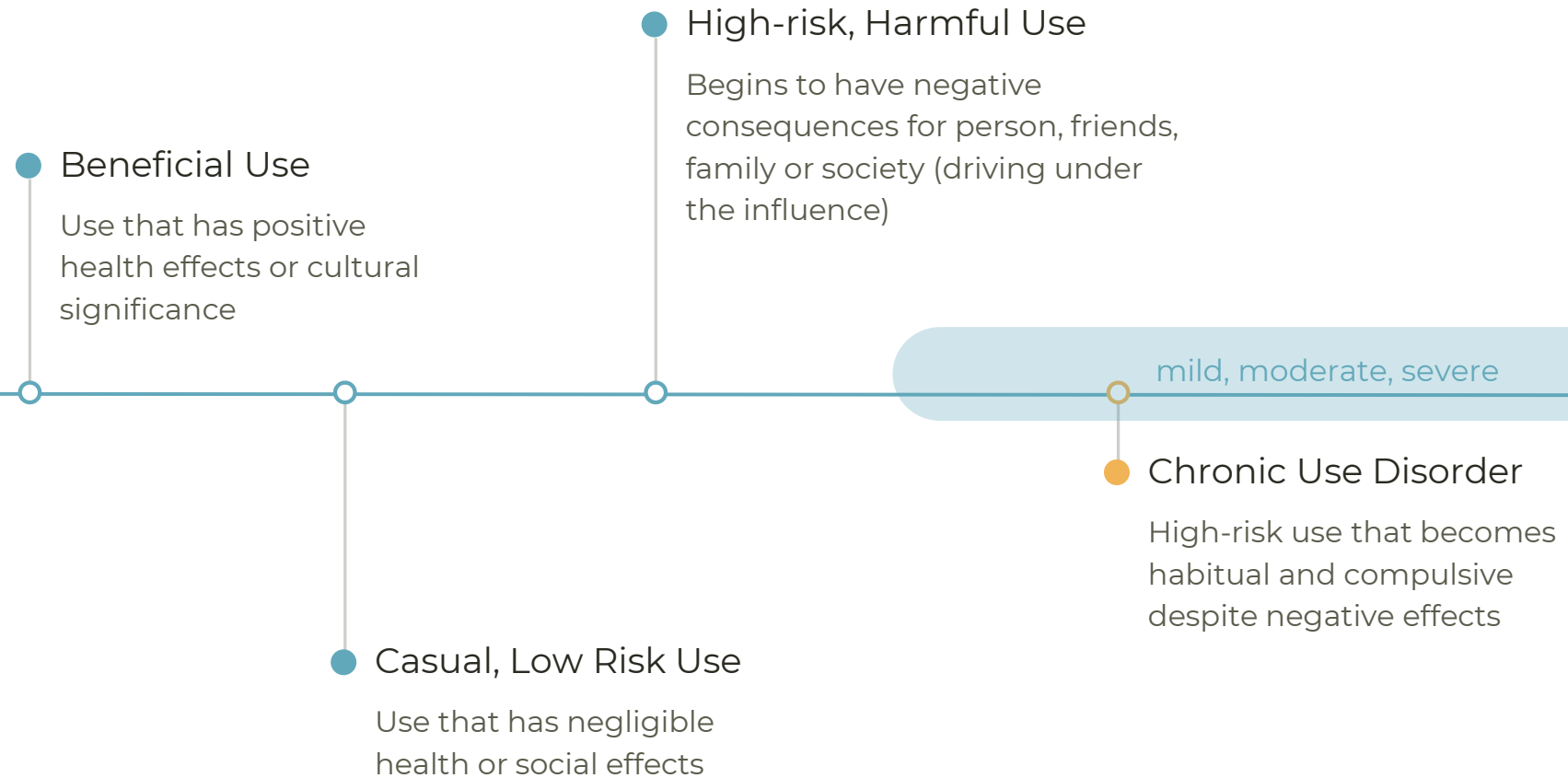
Frequent use of cannabis is linked to an increased risk of developing a cannabis use disorder.

Cannabis Use Disorder

A pattern of cannabis use that causes clinically significant impairment and distress, as evidenced by 2 or more of the DSM-5 symptom criteria.

- Using in larger amounts or for longer than intended
- Unsuccessful or repeated attempts to quit or reduce use of cannabis
- Increased time spent obtaining, using, or recovering from the effects of use
- Hazardous use or use in risky settings (e.g., driving under the influence)
- Neglected major roles to use
- Activities given up to use
- Physical or psychological problems related to use
- Social or interpersonal problems related to use
- Cravings and urges to use
- Using more than intended (tolerance)
- Withdrawal syndrome

Cannabis Use Disorder Exists on a Spectrum.



Primary care providers are well-positioned to **identify** cannabis use disorders, provide brief interventions, and **guide patients to treatment.**



Kaiser Permanente Washington implemented population-based screening and assessment for behavioral health

- Clinical partners requested separate screens for cannabis
- Measures were developed in partnership with clinicians
- 90% of primary care patients are now screened annually

This didn't happen overnight..

Whose idea was this?

We don't have enough time or resources to do this!

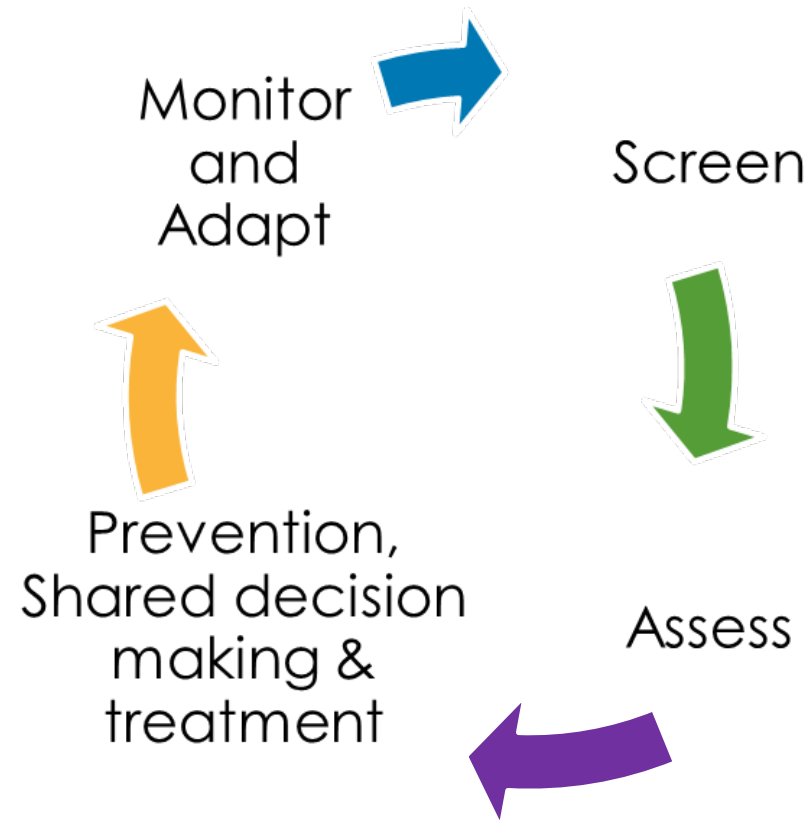
We are too overwhelmed. This is opening up Pandora's box.

The best roll-out of any program I've experienced.

I wouldn't go back to providing care the way I used to if they asked me to.

One of the best things that has happened to my primary care practice...this is just how we do primary care now.

New primary care workflows (for adults)



- 7-Item Screen
- Depression: PHQ-2
 - Alcohol: AUDIT-C
 - Cannabis: SIS-C
 - Drugs: SIS-D

Over the **past 2 weeks**, how often have you been bothered by any of the following problems:

1. Little interest or pleasure in doing things?	Not at all 0	Several days 1	More than half the days 2	Nearly every day 3
2. Feeling down, depressed, or hopeless?	Not at all 0	Several days 1	More than half the days 2	Nearly every day 3

In the **past year**...

3. How often did you have a drink containing alcohol in the past year?	Never 0	Monthly or less 1	2 to 4 times a month 2	2 to 3 times a week 3	4 or more times a week 4	
4. How many drinks containing alcohol did you have on a typical day when you were drinking in the past year?	None 0	1 or 2 drinks 0	3 or 4 drinks 1	5 or 6 drinks 2	7 to 9 drinks 3	10 or more drinks 4
5. How often did you have <u>6 or more</u> drinks on one occasion in the past year?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4	

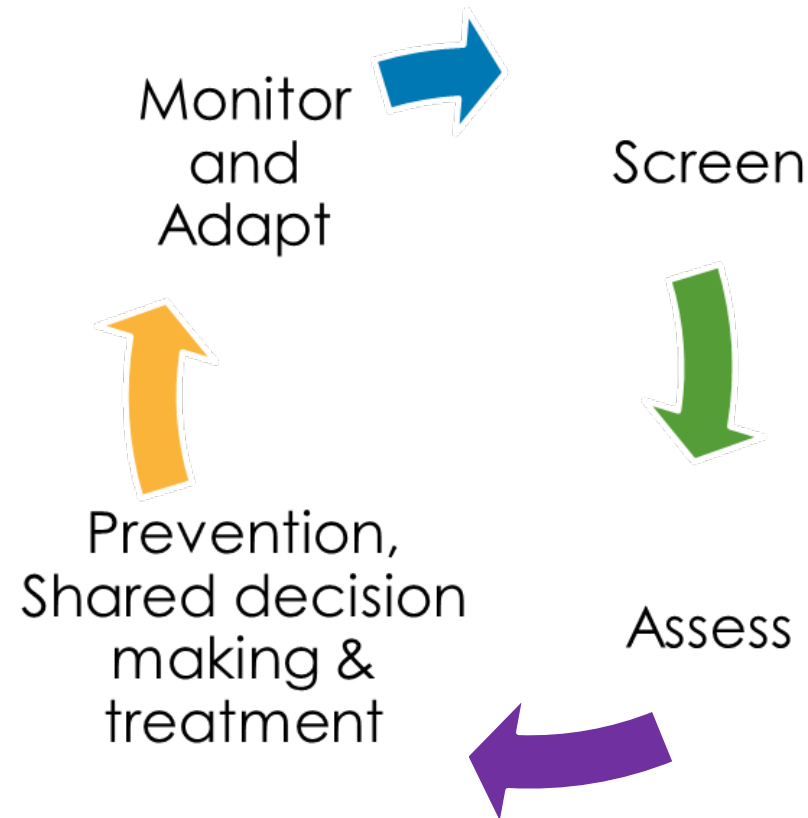
6. How often in the past year have you used marijuana?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4
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7. How often in the past year have you used an illegal drug (not marijuana) or used a prescription medication for non-medical reasons?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4
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Single-Item Screen - Cannabis (SIS-C)

- Self-reported on paper or via an online patient portal
- MA administers the screen if not completed in the year prior
- Positive screen is considered "daily or almost daily" use

New primary care workflows (for adults)



- 7-Item Screen
- Depression: PHQ-2
 - Alcohol: AUDIT-C
 - Cannabis: SIS-C
 - Drugs: SIS-D

- Assessments
- Depression: PHQ-9
 - Suicide risk: C-SSRS
 - Alcohol Symptom Checklist
 - Substance Use Symptom Checklist

Substance Use Symptom Checklist



This checklist will help you and your provider understand how using marijuana or other drugs might be affecting your health.

Please think about your life in the 12 months. Then go through the questions below and answer "yes" or "no" for each one.

Patient Label
Name: _____
MRN: _____
Birth Date (MM/DD/YY): _____

In the last 12 months...

1. Did using the same amount of the drug have less effect than it used to? Or did you have to use more to feel the effect you wanted? <i>Please answer "yes" if either question is true for you.</i>	No	Yes
2. Did you have withdrawal symptoms when you weren't using the drug? Or did you use the drug to avoid having these symptoms? <i>Please answer "yes" if either question is true for you.</i>	No	Yes
3. Did you have times when you used the drug more or for longer than you wanted to?	No	Yes
4. Did you want to cut back or stop using the drug, but couldn't?	No	Yes
5. Did you spend a lot of time trying to get the drug, using the drug, or recovering from using it?	No	Yes
6. Did you continue to use the drug even though you thought it might be causing mental or physical problems—or making them worse?	No	Yes
7. Did using the drug make it harder for you to keep up with your responsibilities at work, school, or home?	No	Yes
8. Did you do something dangerous more than once after using the drug—like drive a car or operate machinery?	No	Yes
9. Did you use the drug even though you thought it might be causing problems with your family or other people?	No	Yes
10. Did you have strong desires or cravings for the drug?	No	Yes
11. Did you spend less time working, enjoying hobbies, or being with others because of your use of the drug?	No	Yes

Which drug(s) did you use in the last year? Please circle all that apply.

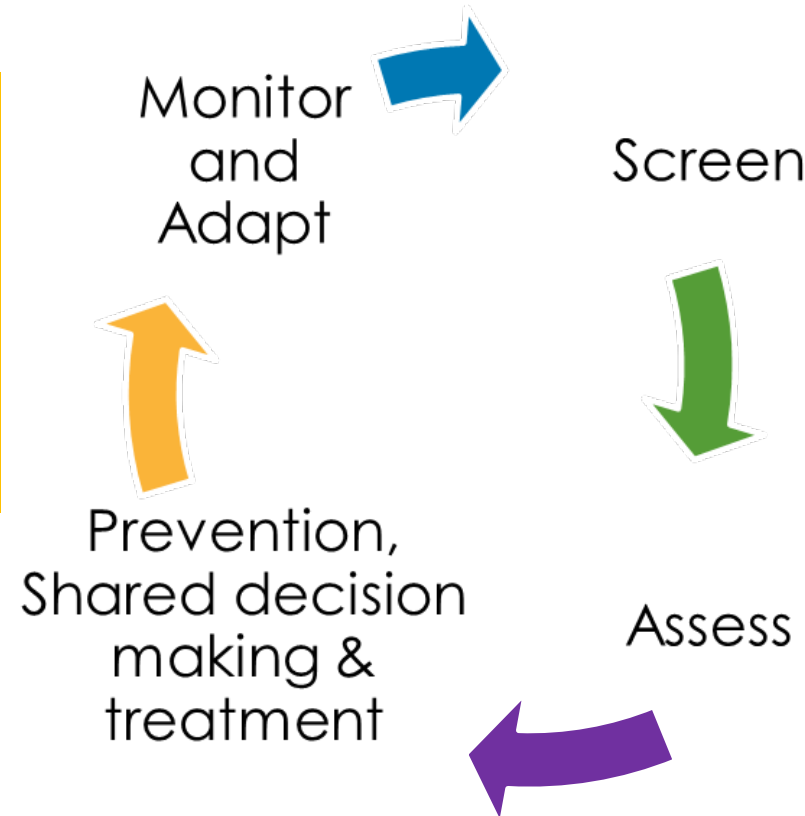
- Opiates, including heroin
- Marijuana or cannabis
- Meth or other stimulants
- Cocaine
- Benzodiazepines or other sedatives
- Other: _____

Substance Use Symptom Checklist

- Administered to patients reporting daily cannabis use
- 11 items mirror DSM-5 criteria for SUD
- 2 or more symptoms consistent with SUD

New primary care workflows (for adults)

- Brief counseling
- Diagnose
- Offer treatment
- Medications
- Warm connection to LICSW
- Consultative psychiatry
- Referral



- 7-Item Screen
- Depression: PHQ-2
 - Alcohol: AUDIT-C
 - Cannabis: SIS-C
 - Drugs: SIS-D

- Assessments
- Depression: PHQ-9
 - Suicide risk: C-SSRS
 - Alcohol Symptom Checklist
 - Substance Use Symptom Checklist



Getting Started with BHI for Clinicians

Depression & Suicidal Ideation

Depression

PHQ 9 Scores

- 10-14: SW or meds optional
- 15-19: Offer SW and/or meds
- 20-27: SW and meds optimal

If PHQ 9 Q#9 = 2 or 3

MA gives Columbia Suicide Risk Assessment. PCP reviews.

Columbia Suicide Risk Assessment

- < 3: Offer SW and meds, schedule follow-up SW or PCP.
- ≥ 3: Same day crisis response plan & lethal means removal.

Crisis Response Plan

Completed by:

- SW or BHS, or
- PCP or other trained clinician
- Consult Mind Phone or on-call psychiatry (after hours)

Alcohol

Patients Who Drink Regularly

AUDIT-C scores ≥3 W/≥4 M, but < 7

Offer preventive advice:

- Recommended limits
- Link to health concerns
- Alcohol Brochure



(Note: at scores of 3 or 4, patients may drink < recommended limits)

AVS: .avsauditcpositive

Use code: **Z71.89**, Alcohol, drug risk assessment counseling

AUDIT-C scores ≥ 7

MA gives Alcohol Symptom Checklist. PCP reviews and assesses patient for alcohol use disorder (AUD).

Alcohol Symptom Checklist Scores

- 0-3: Offer SW and preventive advice (2-3: mild AUD)
 - ≥ 4: mod – severe AUD (≥6: severe)
- Warm handoff to SW, offer meds: 1st line daily naltrexone, 2nd line 3x daily acamprosate

AVS: .avsauditcchighpositive

Marijuana & Drugs

Daily Marijuana and/or Any Illicit Drug Use

MA gives Substance Use Symptom Checklist.

PCP reviews and assesses patient for substance use disorder (SUD). Offer SW.



Provide Marijuana Brochure for daily marijuana users

Substance Use Symptom Checklist Scores

- 0-3: Offer SW and brief advice (2-3: mild SUD)
- ≥ 4: mod – severe SUD (≥6: severe)

Warm handoff to SW; for opioid use disorders, offer meds – buprenorphine, methadone, or naltrexone

Mind Phone available for consultation (1-888-844-4662)

HEALTH USES



Medical marijuana is available in many forms. Some have higher levels of THC, which causes intoxication. Other forms have higher levels of cannabidiol (CBD), which does not cause intoxication.

For some people, marijuana may improve symptoms of:

- Chronic pain caused by cancer or nerve problems
- Muscle spasms due to multiple sclerosis or spinal cord injury
- Severe lack of appetite
- Nausea
- Very rare forms of epilepsy

Important things to know about medical marijuana:

- Medical marijuana products are not regulated.
- Different products have different ingredients and may not offer the same potential health benefits.
- Many product labels are inaccurate and have chemical levels that don't match what is described on the packaging.

If you are considering medical marijuana for your health condition, talk to your doctor so you can choose the best treatment for you and your lifestyle. More effective medications are often available.

HEALTH RISKS

Short-term risks

happen at the time of using marijuana:

- Slowed reaction time
- Decreased attention
- Increased risk for motor vehicle accidents
- Reduced short-term memory
- Increased heart rate
- Increased risk for heart attack or stroke

Long-term risks

happen over time when using marijuana regularly:

- Chronic bronchitis
- Increased risk of schizophrenia or psychotic disorders
- Lower sense of satisfaction with relationships, recreational activities, and work

Research also shows that marijuana use may be linked with:

- Mental health problems, including depression, anxiety, and suicidal thoughts.
- **Cancer**, including lung and other types of cancer in people who smoke marijuana.
- **Other lung and breathing problems**, including asthma and pneumonia in people who smoke marijuana.

Symptoms of marijuana withdrawal

When people who use marijuana daily stop using it, about half will have withdrawal symptoms, including:

- Irritability
- Sleeping difficulties
- Low or sad mood
- Craving
- Anxiety

Risks of marijuana for people under age 25



Chemicals found in marijuana interfere with normal brain development. The brain keeps developing into one's mid 20's. During this time, the brain is more easily harmed.



Research shows that IQ declines in people who use marijuana frequently when they are under age 25. They also tend to have less educational success.

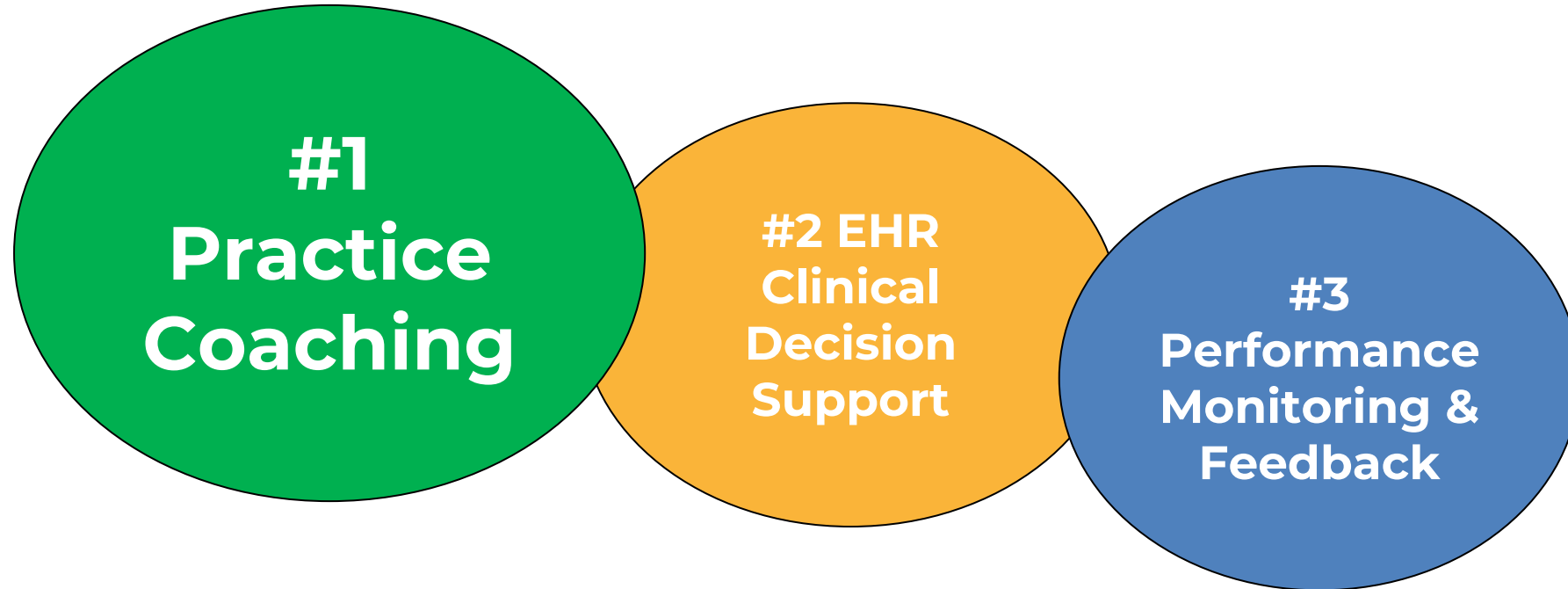
Younger people have a higher risk of addiction and other problems with marijuana.

In fact, 1 out of 6 people who start using marijuana as teenagers become addicted.

Using marijuana makes it harder for young people to achieve their life, work, and school goals.

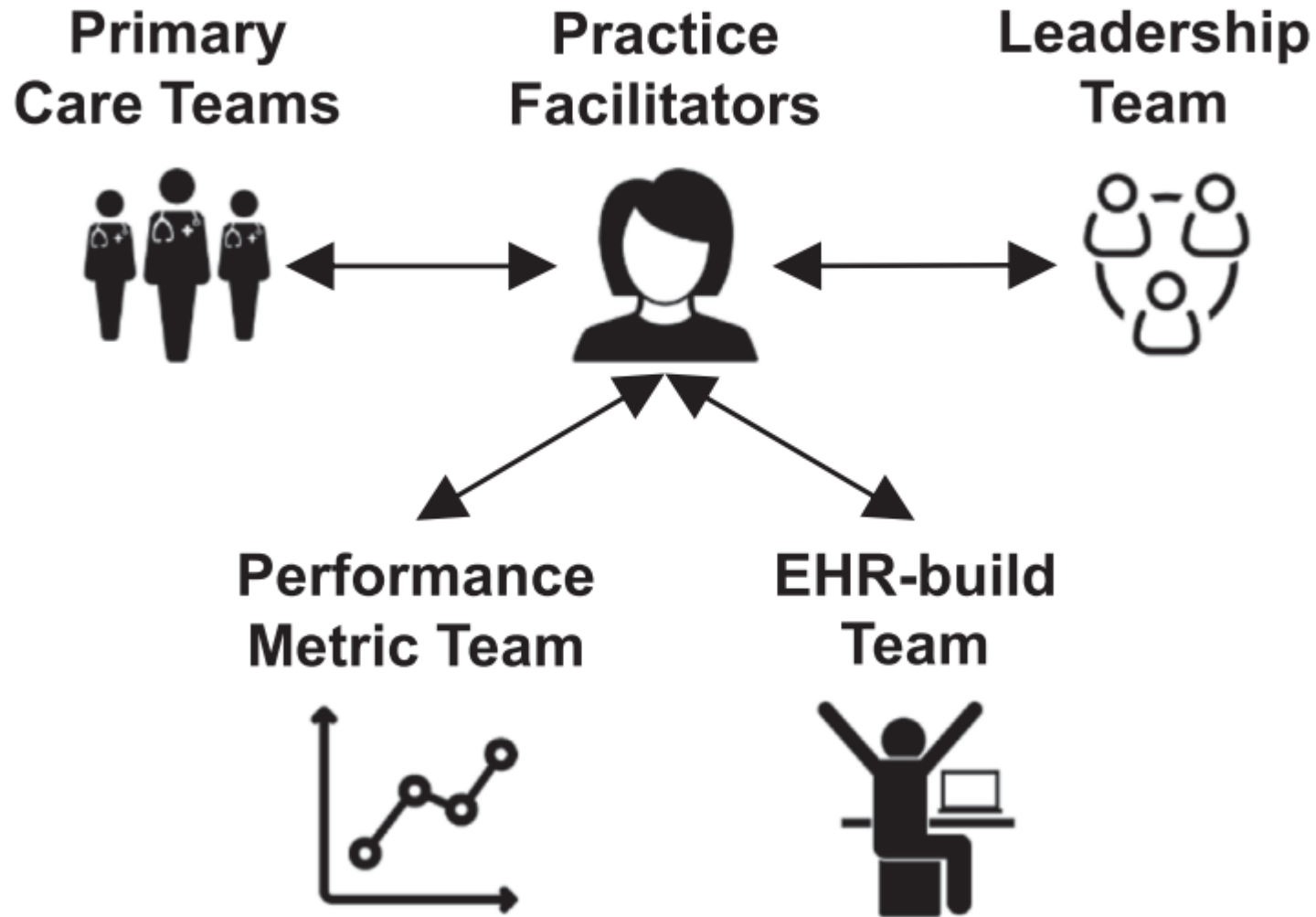


Three Key Implementation Strategies



Bobb IJERPH 2017; Glass Implementation Science 2018; Lee JAMA IM 2023
Greenhalgh T et al, Milbank Quarterly 2004;82:581-692
Bradley Am J Managed Care 2006; Lapham Med Care 2012
Bradley Quality Concerns JGIM 2011; Chavez JSAT 2016; Berger JGIM 2017

#1 Practice coaching



#2 EHR Clinical Decision Support

Health Maintenance Needs

- A vaccine in the routine series to protect against Tetanus, Diphtheria, and Pertussis
- Due for BH related screening

Over the past 2 weeks, how often have you been bothered by any of the following problems?

1. Little interest or pleasure in doing things	
2. Feeling down, depressed, irritable or hopeless	

In the past year...

3. How often did you have a drink containing alcohol in the past year?	
4. How many drinks containing alcohol did you have on a typical day when you were drinking in the past year?	
5. How often did you have 6 or more drinks on one occasion in the past year?	
6. How often in the past year have you used marijuana?	
7. How often in the past year have you used an illegal drug or used a prescription medication for non-medical	

Totals:

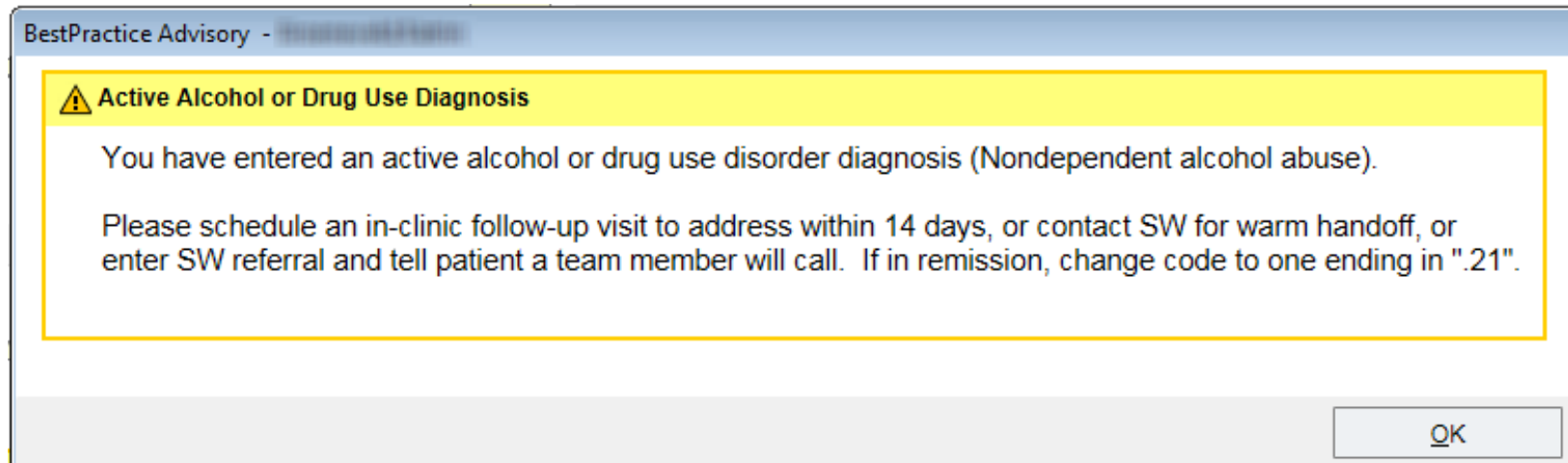
PHQ-9 (below) indicated? (1 or 2 = Yes)	
Alcohol total: (For scores of ≥ 7 , complete the Alcohol Symptom Checklist below)	
Marijuana total: (For a score of 4, complete the Substance Use Symptom Checklist below)	
Drug total: (For any positive score, complete the Substance Use Symptom Checklist below)	

Pre-visit summary prompts for treatment engagement

- Assess with BHI Monitoring Tool. Provider: Patient has active alcohol or drug use disorder [Last Diagnosis]. HEDIS measure for patients ≥ 18 years old: need 2 more follow-up visits by [DATE]. If you will not address and code today, please contact SW.

- Assess with BHI Monitoring Tool. Provider: Patient has active alcohol or drug use disorder [Last Diagnosis]. HEDIS measure for patients ≥ 18 years old: need 1 more follow-up visit by [DATE]. If you will not address and code today, please contact SW.

Best Practice Advisory (BPA)

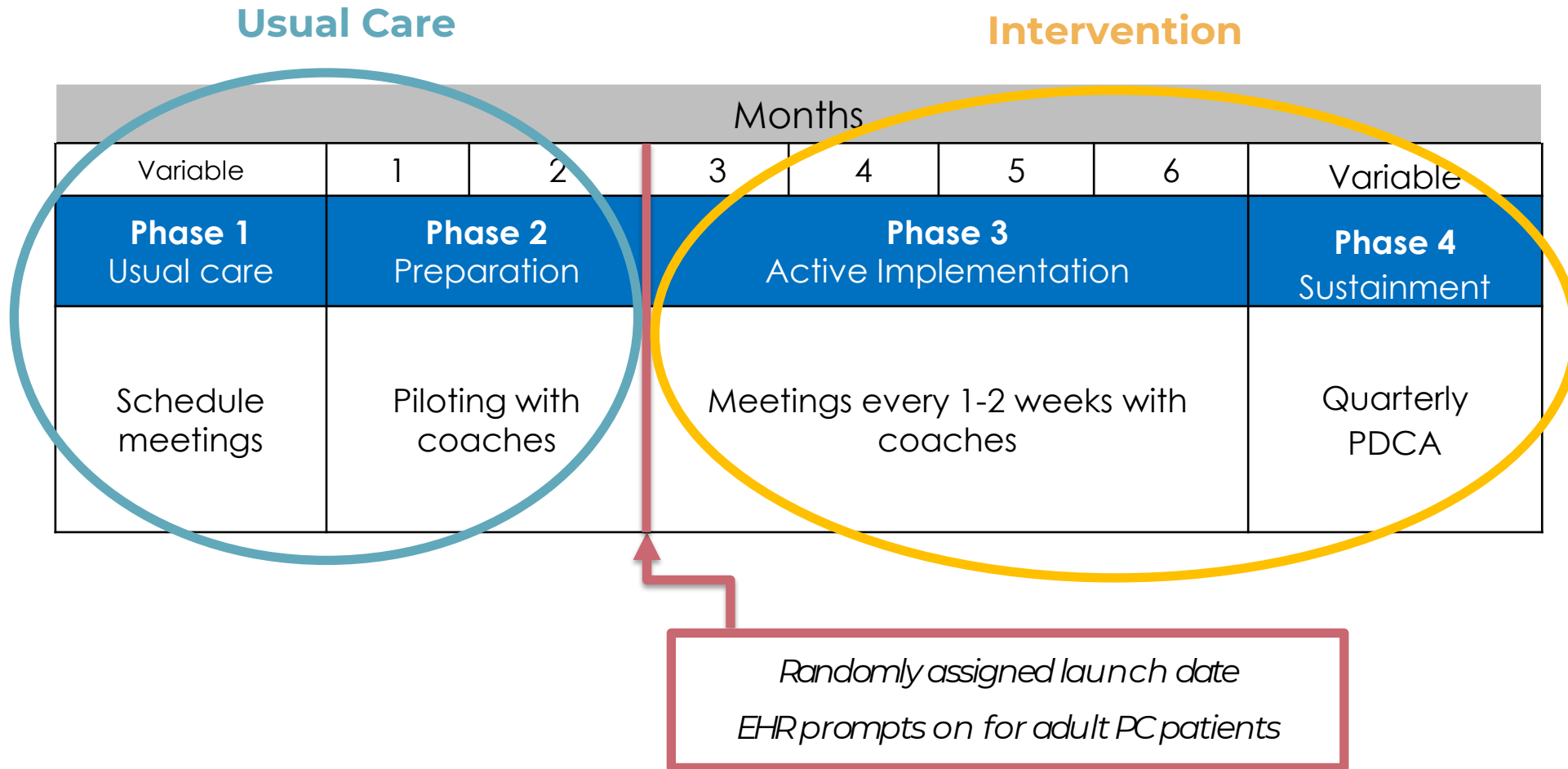


#3 Performance Monitoring & Feedback

September 2022 Behavioral Health Integration Summary (Data from September 1-September 30)						
Clinic	Quarterly <u>PDCA</u> <u>scheduled?</u>	Screening rate depression	Assessment rates depression	Assessment rates Suicide	Screening rates SUD	Assessment rates SUD
1	•	91%	99%	100%	90%	83-93%
2	•	76%	100%	100%	75%	80-91%
3	•	84%	99%	75%	82-83%	71-81%
4	•	87%	99%	100%	85-86%	76-82%
5	•	86%	99%	90%	83%	70-86%
6	•	85%	97%	88%	83%	72-84%
7	•	92%	99%	90%	90%	68-88%
8	•	90%	98%	100%	87-88%	91-100%
9	•	85%	93%	100%	83-84%	69-85%
10	•	84%	98%	75%	81%	95-100%
11	•	89%	96%	100%	88-89%	91-100%

Key: Green = At or above Target; Yellow = within 10% of target; Red = >10% below target

Evaluation Methods & Outcomes



Implementing Care for Cannabis and Other Drug Use in Adult Primary Care: Outcomes of a Cluster- Randomized Implementation Trial



Theresa E. Matson, PhD, MPH,^{1,2} Eric Johnson, MS,¹ Jennifer F. Bobb, PhD,^{1,3} Vina F. Graham, BS,¹
Linda M. Kiel, MA,¹ Amy K. Lee, MPH,^{1,4} Gwen T. Lapham, PhD, MSW, MPH,^{1,2}
Ryan M. Caldeiro, MD,⁵ Katharine A. Bradley, MD, MPH,^{1,2,6} Julie E. Angerhofer, PhD, MPH^{1,2}

Introduction: The U.S. Preventive Services Task Force recommends substance use screening for adults when accurate diagnosis and follow-up treatment can be offered. This study evaluated whether implementation of population-based screening and symptom assessment increased treatment for cannabis and other drug use disorders in a large primary care system.

Methods: Nineteen randomized regional healthcare system sites implemented population-based screening and symptom assessment for cannabis and other drug use as part of a stepped-wedge trial to integrate mental health in adult primary care from January 2016 to July 2018. Implementation strategies included practice facilitation, electronic health record decision support, and performance feedback. Outcomes included treatment initiation and engagement rates among patients with any new drug use disorder and, secondarily, the rates for specific drug use disorders (e.g., cannabis use disorder), using electronic health record and insurance claims data. Mixed-effect logistic regression modeled binary outcomes before and after implementation (January 2015–January 2019), adjusted for randomization stratification and time, accounting for person-level repeated outcomes. Monthly outcome rates (per 10,000 patient-visits) were estimated using marginal standardization. Analyses were conducted in 2023–2024.

Results: Before implementation, 244,542 patients had 942,400 visits; after implementation, 287,696 patients had 1,087,565 visits. Implementation resulted in an increased cannabis screening (9–153 per 10,000 patient-visits; $p < 0.001$) and newly identified cannabis use disorder (10–17 per 10,000 patient-visits; $p < 0.001$). Treatment initiation for cannabis use disorder increased by 0.5–1 per 10,000 patient-visits ($p = 0.006$), but treatment engagement did not change ($p = 0.147$). Treatment initiation and engagement for any drug use disorder did not change ($p = 0.777$ and 0.584).

Conclusions: Findings underscore the potential value of integrating population-based cannabis screening/assessment in primary care for treatment initiation and highlight the need for improved engagement for cannabis use disorder.

Am J Prev Med 2026;70(1):108112. © 2025 Elsevier Inc. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

Data: Electronic health records

- Prevention: Screening & assessments
- Treatment: ICD and other codes (V, Z-codes, HCSPCS)
- Insurance claims

Analyses: Mixed-effects logistic regression

- Modelled binary outcomes before and after implementation
- Adjusted for calendar time, randomization year
- Monthly outcome rates (% per 10,000 patients) estimated using marginal standardization

More detail in this paper...

Population...

	Usual Care & Preparation	Intervention Active/Sustain
Number of patients	244,542	287,696
Number of visits	942,400	1,087,565
Age, years, mean (sd)	50 (18)	49 (18)
Female (%)	58	58

Prevention...

Usual Care vs Intervention per 10,000 PC patients

	UC	Intervention	p
Screened	84.6	3075.4	< 0.001
Report daily cannabis use	8.7	153.1	< 0.001
Reported any other drug use	3.7	61.9	< 0.001
Assessed for SUD Symptoms	6.5	136.2	< 0.001
Reported Mild (2-3)	0.8	19.8	
Reported Moderate(4-5)	0.3	7.8	< 0.001
Reported Severe (6+)	0.3	10.0	

Treatment Initiation and Engagement...

Usual Care vs Intervention
per 10,000 PC patients

	UC	Intervention	<i>p</i>
▲ 65% New CUD diagnoses	10.3	17.0	< 0.001
▲ 100% CUD treatment initiation	0.5	1.0	0.006
CUD treatment engagement	0.8	0.9	0.548

*Estimates for other drug use
available in paper...*

SPARC Takeaways:

Routine screening and assessment for cannabis along with other behavioral conditions was achieved through practice facilitation, clinical decision support, and performance monitoring.

SPARC significantly increased new CUD diagnoses and treatment initiation but did not increase treatment engagement.

Additionally, many of the tools and approaches were implemented before they could be robustly evaluated.



How do we know these
screening tools work?

Over the **past 2 weeks**, how often have you been bothered by any of the following problems:

1. Little interest or pleasure in doing things?	Not at all 0	Several days 1	More than half the days 2	Nearly every day 3
2. Feeling down, depressed, or hopeless?	Not at all 0	Several days 1	More than half the days 2	Nearly every day 3

In the **past year**...

3. How often did you have a drink containing alcohol in the past year?	Never 0	Monthly or less 1	2 to 4 times a month 2	2 to 3 times a week 3	4 or more times a week 4	
4. How many drinks containing alcohol did you have on a typical day when you were drinking in the past year?	None 0	1 or 2 drinks 0	3 or 4 drinks 1	5 or 6 drinks 2	7 to 9 drinks 3	10 or more drinks 4
5. How often did you have <u>6 or more</u> drinks on one occasion in the past year?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4	

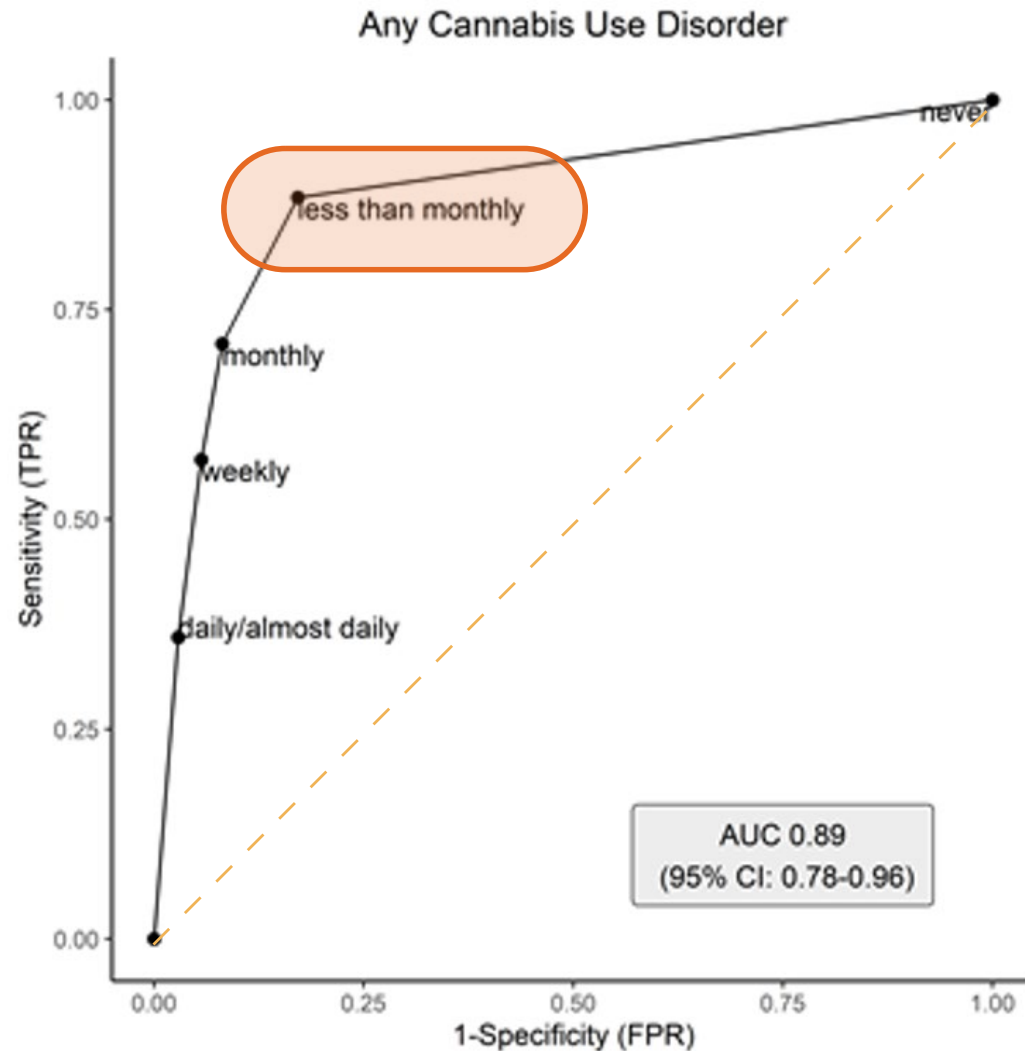
6. How often in the past year have you used marijuana?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4
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7. How often in the past year have you used an illegal drug (not marijuana) or used a prescription medication for non-medical reasons?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4
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Single-Item Screen - Cannabis (SIS-C)

- Self-reported on paper or via an online patient portal
- MA administers the screen if not completed in the year prior
- Positive screen is considered "daily or almost daily" use

Screening Study: Tested the discriminative validity of the SIS-C compared to a reference-standard measure of CUD



Methods:

- **Design:** Cross-sectional diagnostic study
- **Population:** 1688 KPWA primary care patients
- **Data:** Confidential survey + EHR
- **Reference standard:** CIDI-SAM

Results:

- 7% patients met criteria for CUD
- SIS-C showed strong discriminative validity (AUC>0.80)
- Optimal threshold was "less than monthly" or more frequent use (SENS 0.88 / SPEC 0.83)
- SIS-C performed well across subgroups

Threshold for a positive screen

Less than monthly
(Best sensitivity/specificity)

Daily or almost daily
(Used by KPWA Primary Care)

Primary care setting:

4% CUD prevalence



Mental health setting:

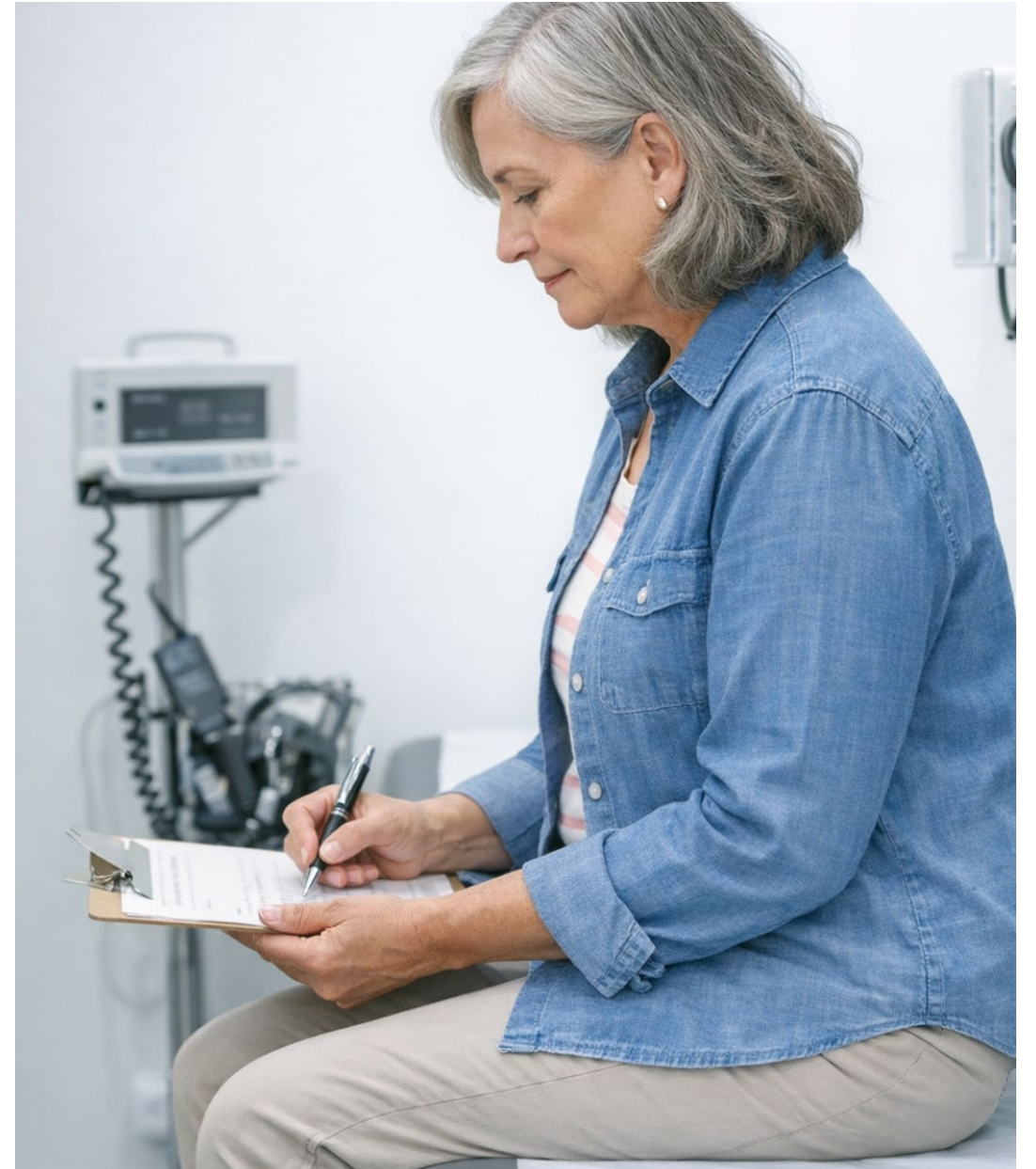
20% CUD prevalence



Screening Takeaways:

The SIS-C was valid for identifying patients at risk of cannabis use disorder in routine care.

However, its low positive predictive values suggests that further assessment is necessary when screening for CUD in low-prevalence settings such as primary care.



Substance Use Symptom Checklist



This checklist will help you and your provider understand how using marijuana or other drugs might be affecting your health.

Please think about your life in the 12 months. Then go through the questions below and answer "yes" or "no" for each one.

Patient Label
Name: _____
MRN: _____
Birth Date (MM/DD/YY): _____

In the last 12 months...

1. Did using the same amount of the drug have less effect than it used to? Or did you have to use more to feel the effect you wanted? <i>Please answer "yes" if either question is true for you.</i>	No	Yes
2. Did you have withdrawal symptoms when you weren't using the drug? Or did you use the drug to avoid having these symptoms? <i>Please answer "yes" if either question is true for you.</i>	No	Yes
3. Did you have times when you used the drug more or for longer than you wanted to?	No	Yes
4. Did you want to cut back or stop using the drug, but couldn't?	No	Yes
5. Did you spend a lot of time trying to get the drug, using the drug, or recovering from using it?	No	Yes
6. Did you continue to use the drug even though you thought it might be causing mental or physical problems—or making them worse?	No	Yes
7. Did using the drug make it harder for you to keep up with your responsibilities at work, school, or home?	No	Yes
8. Did you do something dangerous more than once after using the drug—like drive a car or operate machinery?	No	Yes
9. Did you use the drug even though you thought it might be causing problems with your family or other people?	No	Yes
10. Did you have strong desires or cravings for the drug?	No	Yes
11. Did you spend less time working, enjoying hobbies, or being with others because of your use of the drug?	No	Yes

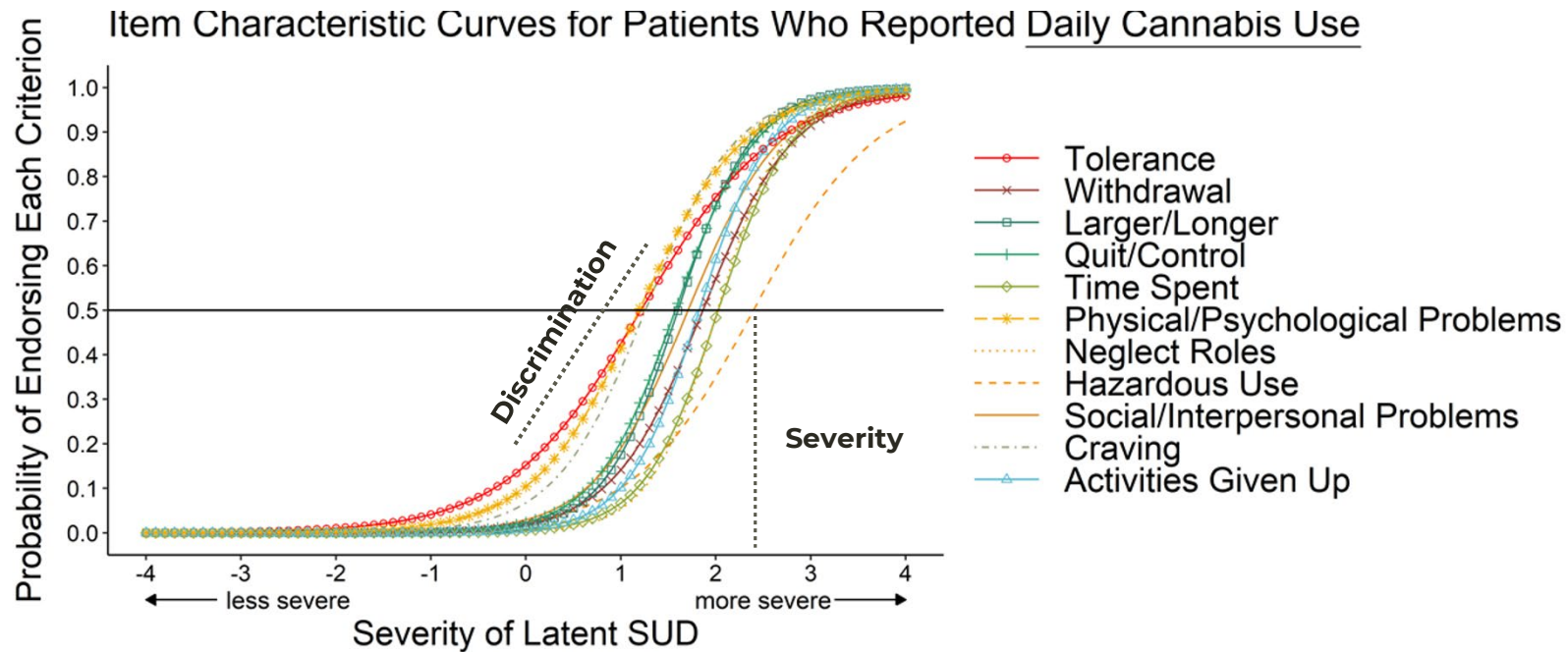
Which drug(s) did you use in the last year? Please circle all that apply.

- Opiates, including heroin
- Marijuana or cannabis
- Meth or other stimulants
- Cocaine
- Benzodiazepines or other sedatives
- Other: _____

Substance Use Symptom Checklist

- Administered to patients reporting daily cannabis use
- 11 items mirror DSM-5 criteria for SUD
- **2 or more symptoms** consistent with SUD

Assessment Takeaways: Tested the psychometric properties of the follow-up Substance Use Symptom Checklist assessment



Methods:

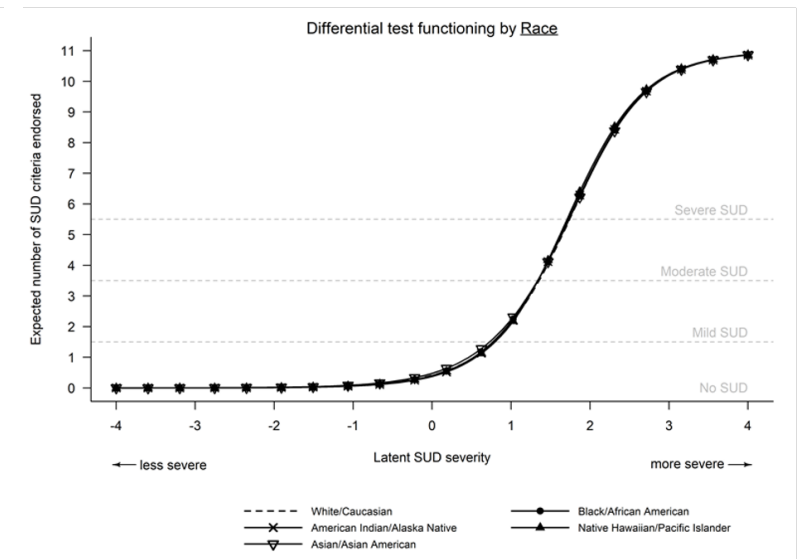
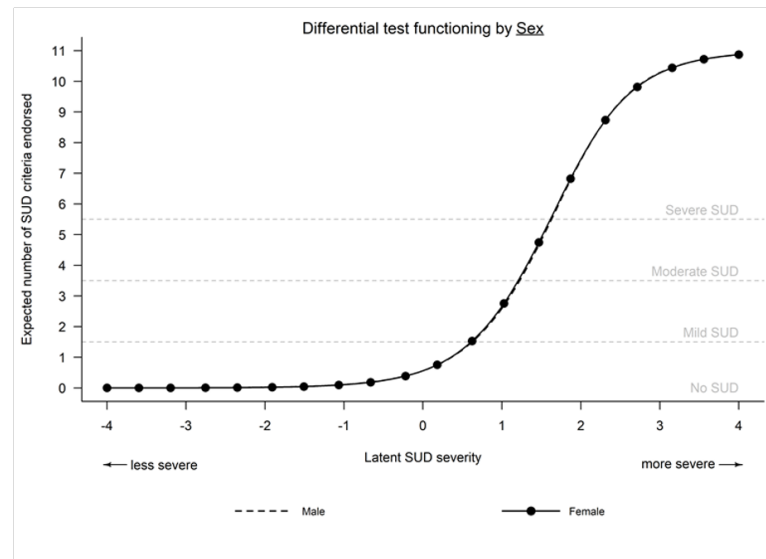
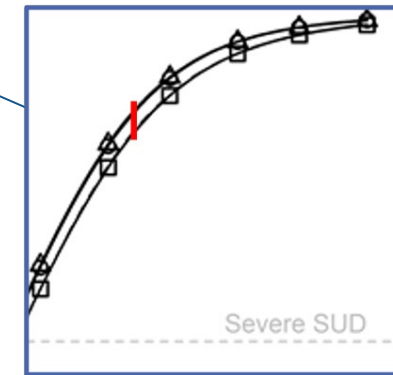
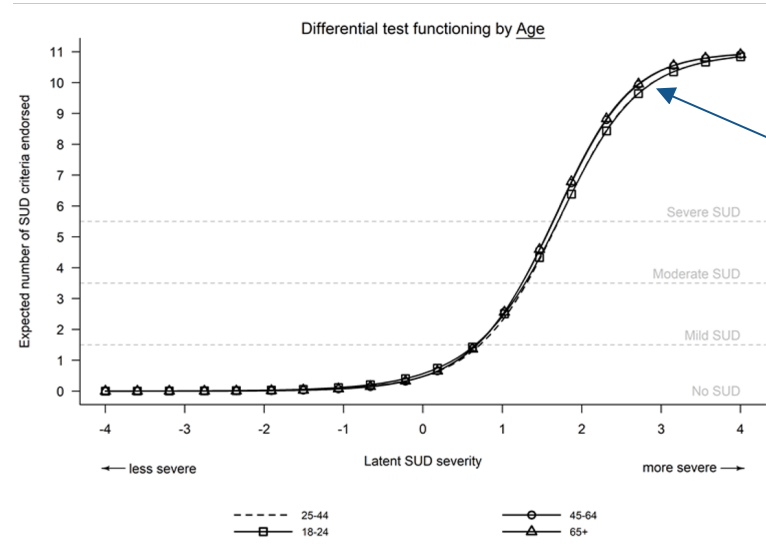
- **Design:** Cross-sectional psychometric study
- **Population:** 16,140 KPWA primary care patients who reported daily cannabis use on the SIS-C
- **Data:** EHR data
- **Substance Use Symptom Checklist:** 11-item assessment based on DSM-5 criteria

Results:

- 26% patients reported ≥ 2 criteria
- Models supported current diagnosing standards
- All items on the Symptom Checklist discriminated between higher and lower levels of severity

Differential item functioning (DIF) can occur if items perform differently for subgroups

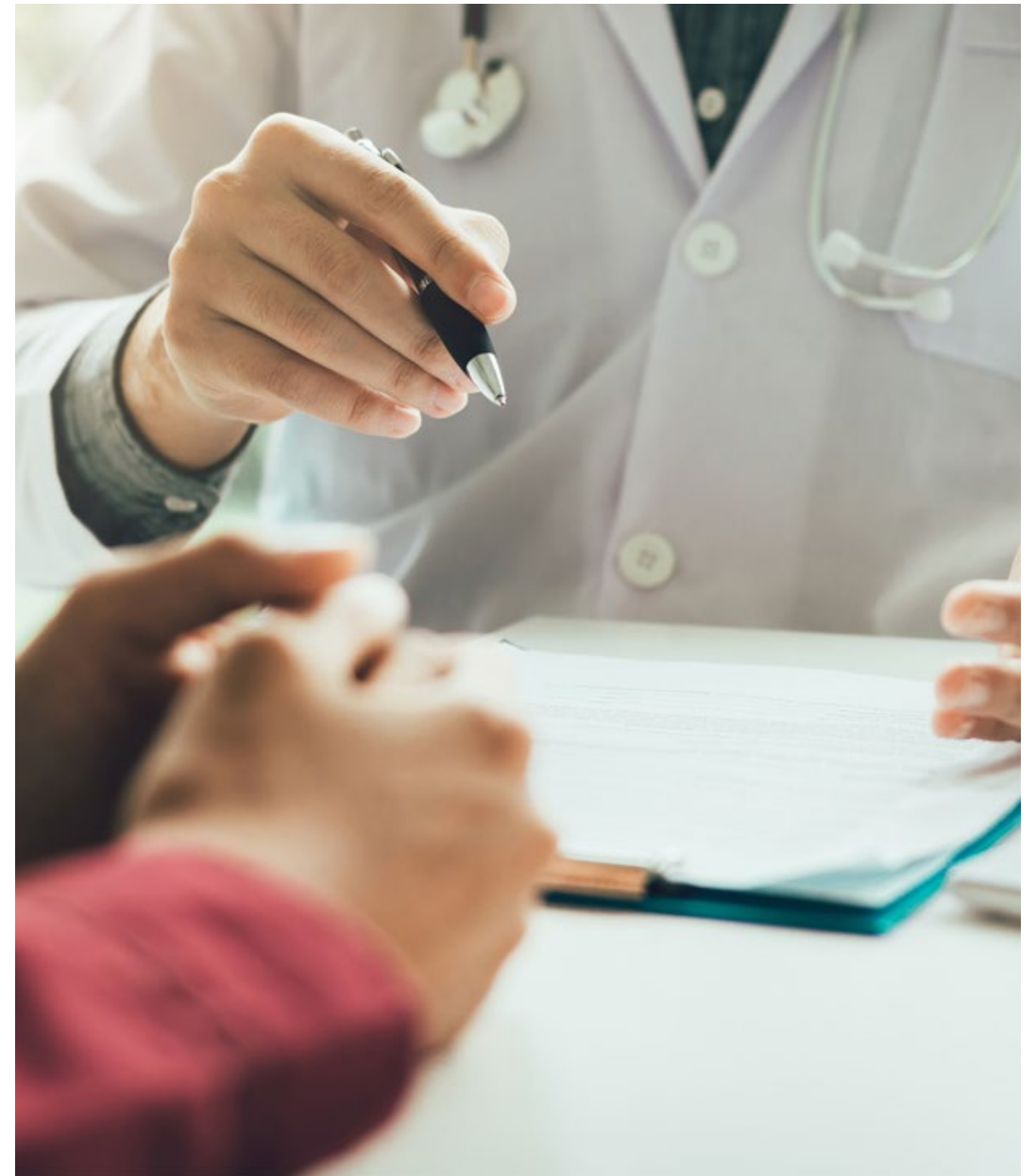
Accounting for DIF by age, sex, race, and ethnicity did not meaningfully change total scores



Assessment Takeaways:

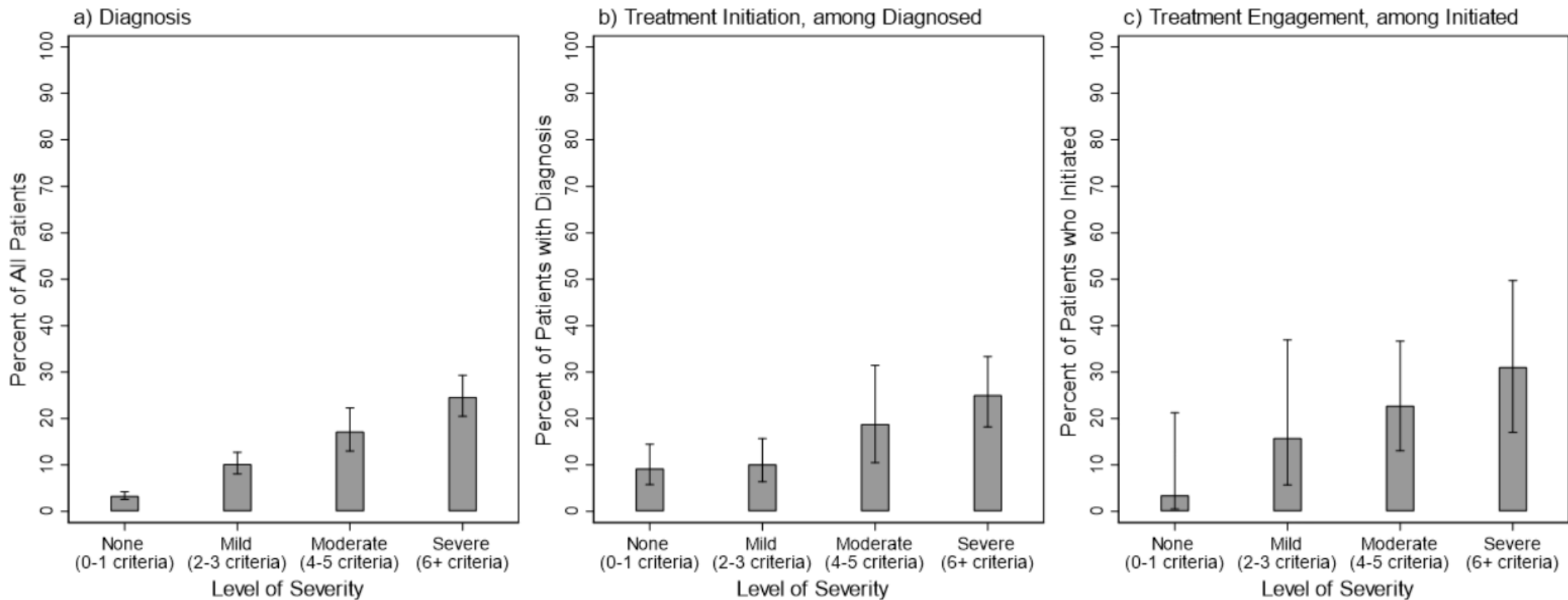
A Substance Use Symptom Checklist administered to patients who reported daily cannabis use during routine care measured cannabis use disorder in the expected manner.

This Symptom Checklist may support clinicians in making diagnosis and treatment decisions.



What about patients who report SUD symptoms, but **don't receive a diagnosis or treatment?**

Among Patients Reporting Daily Cannabis Use Only



Association between cannabis use disorder symptom severity and probability of clinically-documented diagnosis and treatment in a primary care sample

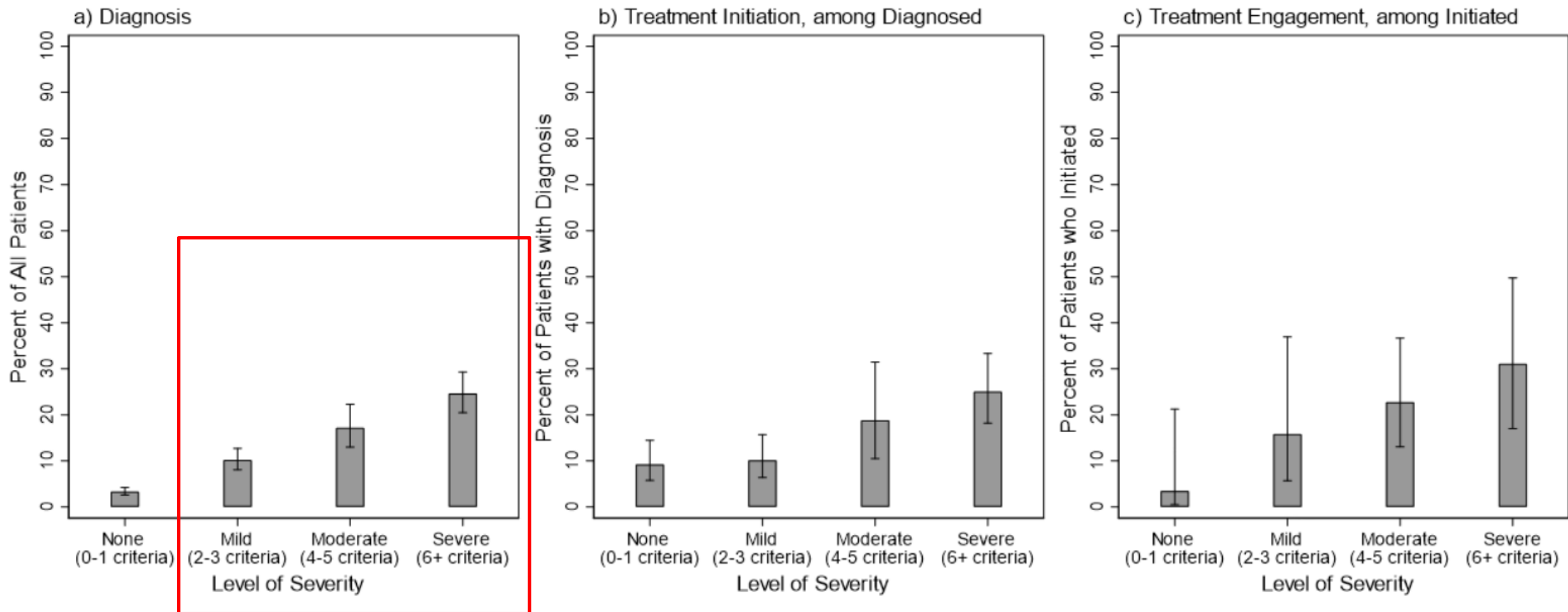
[Theresa E Matson](#)^{a,b,c}, [Emily C Williams](#)^{a,b,c}, [Gwen T Lapham](#)^{a,b}, [Malia Oliver](#)^a, [Kevin A Hallgren](#)^{a,b,d}, [Katharine A Bradley](#)^{a,b,e}

► [Drug Alcohol Depend.](#) Author manuscript; available in PMC: 2024 Oct 1.

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[10.1016/j.drugalcdep.2023.110946](https://doi.org/10.1016/j.drugalcdep.2023.110946)

Among Patients Reporting Daily Cannabis Use Only



Deeper Dive into Chart Notes...

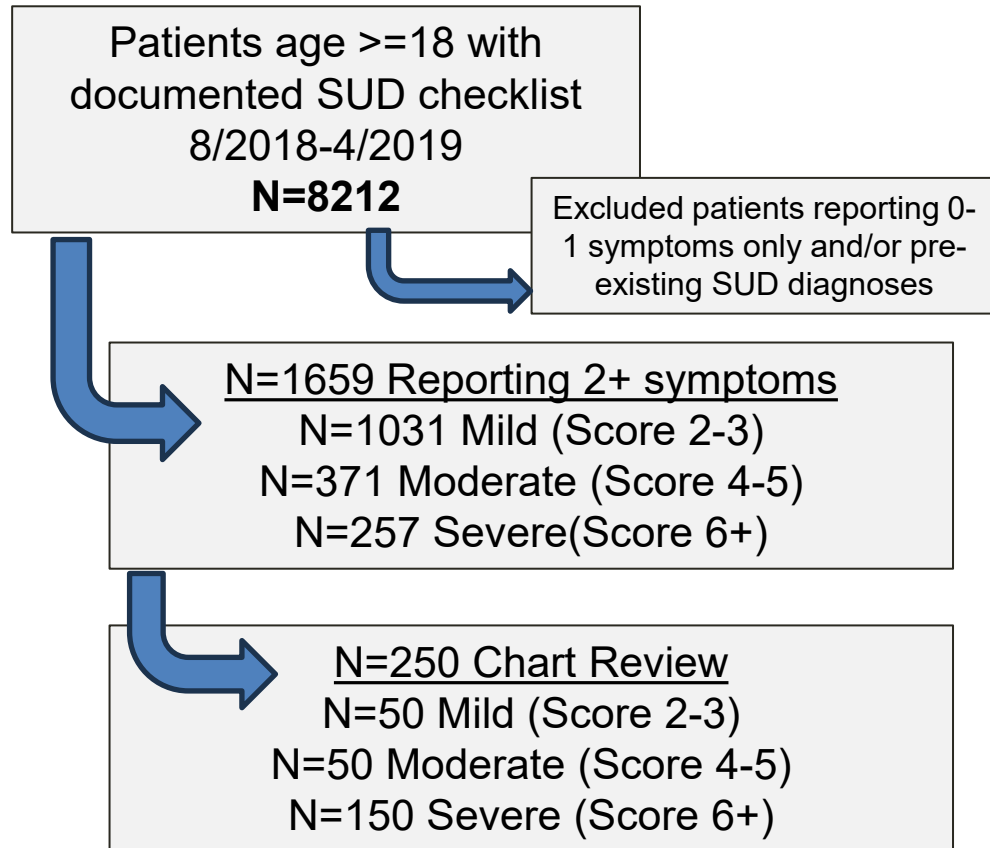


Chart review sample N=250

	Mild	Mod	Severe
18-39	56%	84%	70%
40-64	30%	16%	27%
65+	14%	0%	3%
Women	54%	38%	35%
Men	46%	62%	65%

Deeper Dive into Chart Notes...

Chart review sample N=250

	Mild	Mod	Severe
At the time of PC visit ...			
Prior SUD use only (not current)	4%	2%	15%
Current treatment documented	0%	4%	10%
Treatment referral documented	10%	28%	33%
Within next 90 days...			
Substance use addressed	30%	28%	43%
Addressed in PC	20%	26%	27%

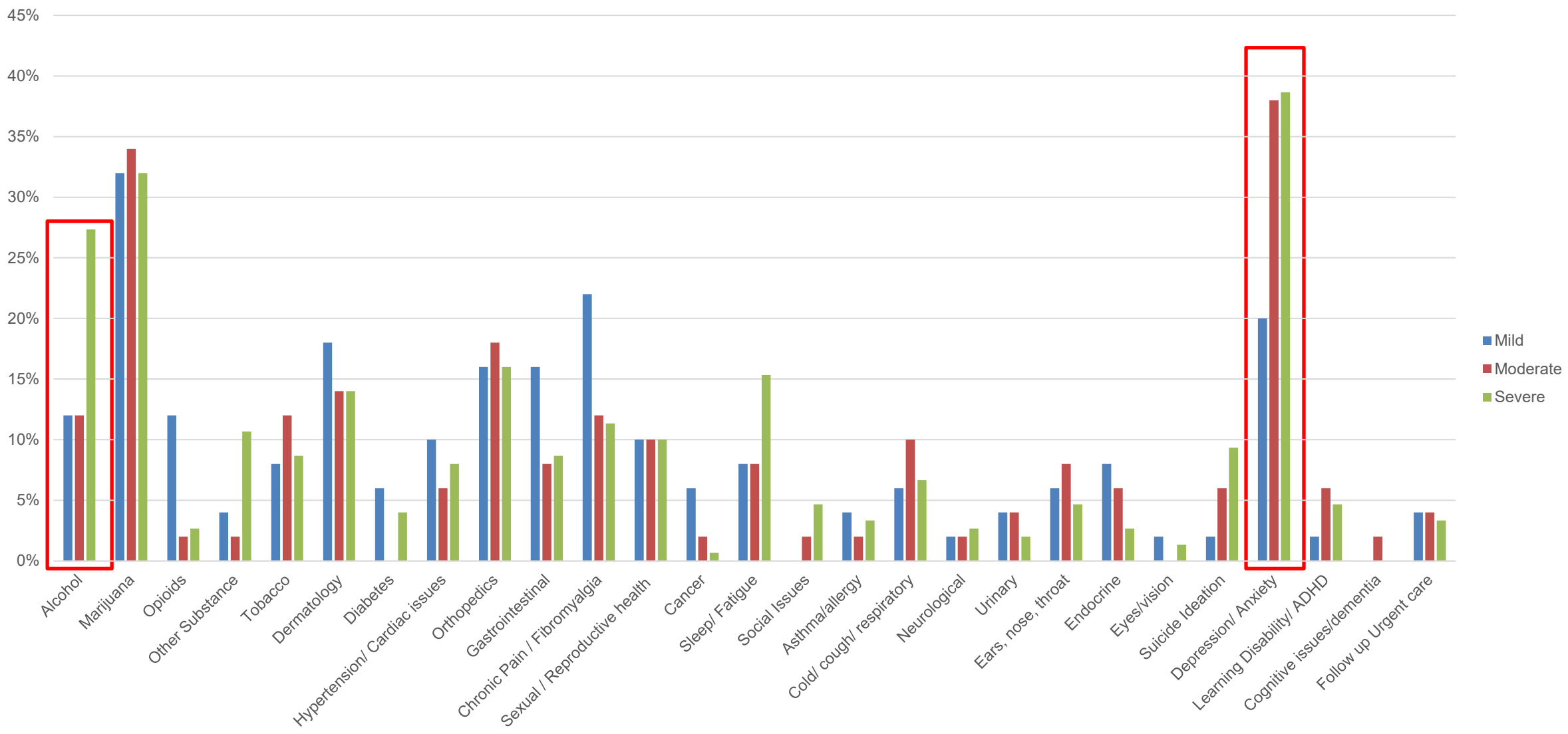
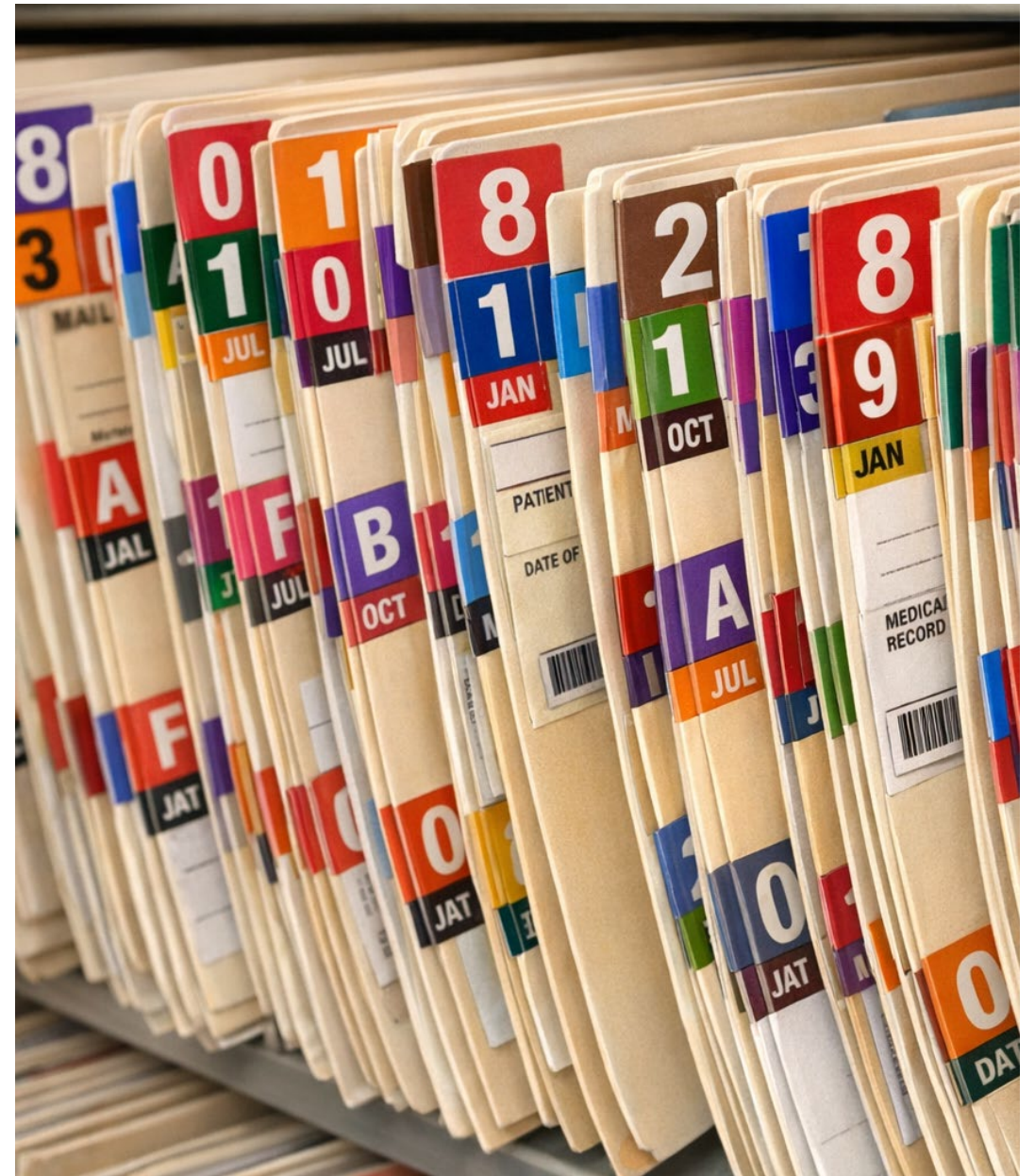


Chart Review Takeaways:

Among patients reporting SUD symptoms without a SUD diagnosis, some chart notes indicated PCPs were still addressing cannabis and other drug use.

Not addressed as often when patients reporting mild symptoms.

Many competing clinical priorities, some correlated with cannabis use.



Implications for Integrating Cannabis Use Prevention and Treatment into Primary Care



Clinicians now have valid measures to help identify patients with cannabis use disorder

These tools were validated in real healthcare settings using existing data, instead of in a research study that had limited applicability.



Measurement-based care can help providers make diagnosis and treatment decisions

However additional clinical guidelines and implementation strategies may be needed to support their use as a diagnosing tool



Further research is needed to understand how to engage people in treatment for cannabis use

We need more effective strategies and interventions to sustain patient involvement in cannabis treatment

This work provides clinicians with practical tools and strategies to help them identify patients at risk, diagnose a use disorder, and support conversations about treatment



FUTURE RESEARCH ROADMAP

- Exploring how to address mild SUD symptoms in patient-centered ways
 - Relationships between frequency of use and other symptoms
- Defining and measuring treatment
- Comparing SIS-C to other brief screeners
- Care-navigation to improve treatment engagement
- Cannabis-related adverse events (hyperemesis, psychosis) and associated health services



For more information

- Julie Angerhofer (Julie.E.Angerhofer@kp.org)
- Tessa Matson (Tessa.E.Matson@kp.org)
- Literature
 - Implementing integrated mental health:**
 - Angerhofer et al., 2024 (doi: 10.7326/M24-0024)
 - Bobb et al., (doi: 10.3390/ijerph14091030)
 - Glass et al., 2018 (doi: 10.1186/s13012-018-0795-9)
 - Matson et al., 2026 (doi: 10.1016/j.amepre.2025.10811)
 - Cannabis screening & assessment**
 - Lapham et al. 2024 (doi: 10.1007/s11606-024-09061-6.)
 - Matson et al., 2022 (doi:10.1001/jamanetworkopen.2022.39772)
 - Matson et al., 2023 (doi:10.1001/jamanetworkopen.2023.16283)
 - Reasons for cannabis use**
 - Lapham et al., 2023 (doi:10.1001/jamanetworkopen.2023.28934)

Surveys

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Every survey we receive helps us improve and continue offering our programs.

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