

# Implementing Care for Alcohol & Other Drug Use in Medical Settings

## An Extension of SBIRT



NATIONAL  
COUNCIL  
*for Mental*  
Wellbeing

SBIRT Change Guide 1.0  
February 2018

# SBIRT CHANGE GUIDE 1.0

Introduction.....	1
<b>Overview of Clinical and Organizational Changes Recommended.....</b>	<b>3</b>
<b>Clinical Changes.....</b>	<b>5</b>
<b>Change #1: Screen All Adults At Least Annually.....</b>	<b>5</b>
<b>Change #2: Eliciting Symptoms of Alcohol and/or Other Drug Use Disorders.....</b>	<b>9</b>
<b>Change #3: Brief Counseling.....</b>	<b>13</b>
<b>Change #4: Management of Alcohol or Other Drug Use Disorders.....</b>	<b>16</b>
<b>Change #5: Follow-up with Monitoring.....</b>	<b>20</b>
<b>Organizational Changes.....</b>	<b>23</b>
<b>Change #6: Leaders Actively Support Improvements.....</b>	<b>23</b>
<b>Change #7: Use Quality Improvement Processes.....</b>	<b>26</b>
<b>Change #8: Train Primary Care Teams.....</b>	<b>28</b>
<b>Change #9: Billing and Identifying Revenues for Alcohol and/or Other Drug Care.....</b>	<b>30</b>
<b>Appendix.....</b>	<b>32</b>
<b>Change #1 Resources: Screen All Adults At Least Annually.....</b>	<b>32</b>
<b>Change #2 Resources: Eliciting Symptoms.....</b>	<b>34</b>
<b>Change #3 Resources: Brief Counseling.....</b>	<b>35</b>
<b>Change #4 Resources: Management.....</b>	<b>37</b>
<b>Change #5 Resources: Monitoring.....</b>	<b>40</b>
<b>Change #8 Resources: Train Primary Care Teams.....</b>	<b>42</b>
<b>Change #9 Resources: Billing and Finances.....</b>	<b>43</b>
<b>The Current State of SBIRT in Practice and Research.....</b>	<b>47</b>
<b>References.....</b>	<b>49</b>

# Acknowledgements

## SBIRT Change Guide Expert Panel

### **Katharine Bradley, MD, MPH**

*Practice Transformation Team Chair*

Senior Investigator, Kaiser Permanente Washington Health Research Institute

### **Henry Chung, MD**

*Practice Transformation Team Advisor*

Senior Medical Director, Behavioral Health Integration; Strategy Montefiore Care Management Organization  
Professor of Psychiatry, Albert Einstein College of Medicine

### **Richard L. Brown, MD, MPH**

Professor, University of Wisconsin Department of Family Medicine and Community Health

### **Tillman Farley, MD**

Chief Medical Officer, Salud Family Health Centers

### **Leigh Fischer, MPH**

Associate, Abt Associates

### **Eric Goplerud, PhD**

Vice President, National Opinion Research Center; (NORC) at the University of Chicago Senior Fellow, NORC at the University of Chicago

### **Sandeep Kapoor, MD**

Director, SBIRT, Division of General Internal Medicine, Department of Emergency Medicine, Department of Psychiatry/Behavioral Health, Northwell Health

### **Hillary Kunins, MD, MPH, MS**

Assistant Commissioner, Bureau of Alcohol and Drug Use, New York City Department of Health and Mental Hygiene; Clinical Professor, Departments of Medicine, Psychiatry and Behavioral Sciences, Family and Social Medicine, Albert Einstein College of Medicine

### **Richard Saitz, MD, MPH**

Chair and Professor of Community Health Sciences (CHS), Boston University School of Public Health; Professor of Medicine, Boston University School of Medicine

### **Mary Velasquez, PhD**

Professor and Director, Health Behavior Research and Training Institute, The University of Texas at Austin School of Social Work

# Acknowledgements, CONT.

## Other Contributing Experts

### **Jake Bowling, MSW**

Senior Advisor, Policy and Practice Improvement, National Council for Mental Wellbeing

### **Reed Forman, MSW**

Lead Public Health Advisor, SAMHSA

### **Tom Hill, MSW**

Vice President, Addictions and Recovery, National Council for Mental Wellbeing

### **Chuck Ingoglia, MSW**

Senior Vice President, Public Policy and Practice Improvement, National Council for Mental Wellbeing

### **Brie Reimann, MPA**

Director, SAMHSA-HRSA Center for Integrated Health Solutions, National Council for Mental Wellbeing

### **Pam Pietruszewski, MA**

Integrated Health Consultant, National Council for Mental Wellbeing

### **Nick Szubiak, MSW, LCSW**

Director, Clinical Excellence in Addictions, National Council for Mental Wellbeing; Integrated Health Consultant, National Council for Mental Wellbeing

### **Mohini Venkatesh, MPH**

Vice President, Policy and Practice Improvement, National Council for Mental Wellbeing

### **Aaron Williams, MA**

Senior Director, Training and Technical Assistance for Substance Use, National Council for Mental Wellbeing Consultant, Substance Abuse and Mental Health Services Administration (SAMHSA)/Health Resources and Service Administration (HRSA) Center for Integrated Health Solutions

## Project Management Team

### **Teresa Halliday, MA**

Director, Practice Improvement, National Council for Mental Wellbeing

### **Julia Schreiber, MPH**

Project Manager, National Council for Mental Wellbeing

### **Sharday Lewis, MPH**

Project Manager, National Council for Mental Wellbeing

### **Alexandra Meade**

Project Coordinator, National Council for Mental Wellbeing

### **Stephanie Swanson**

Project Assistant, National Council for Mental Wellbeing

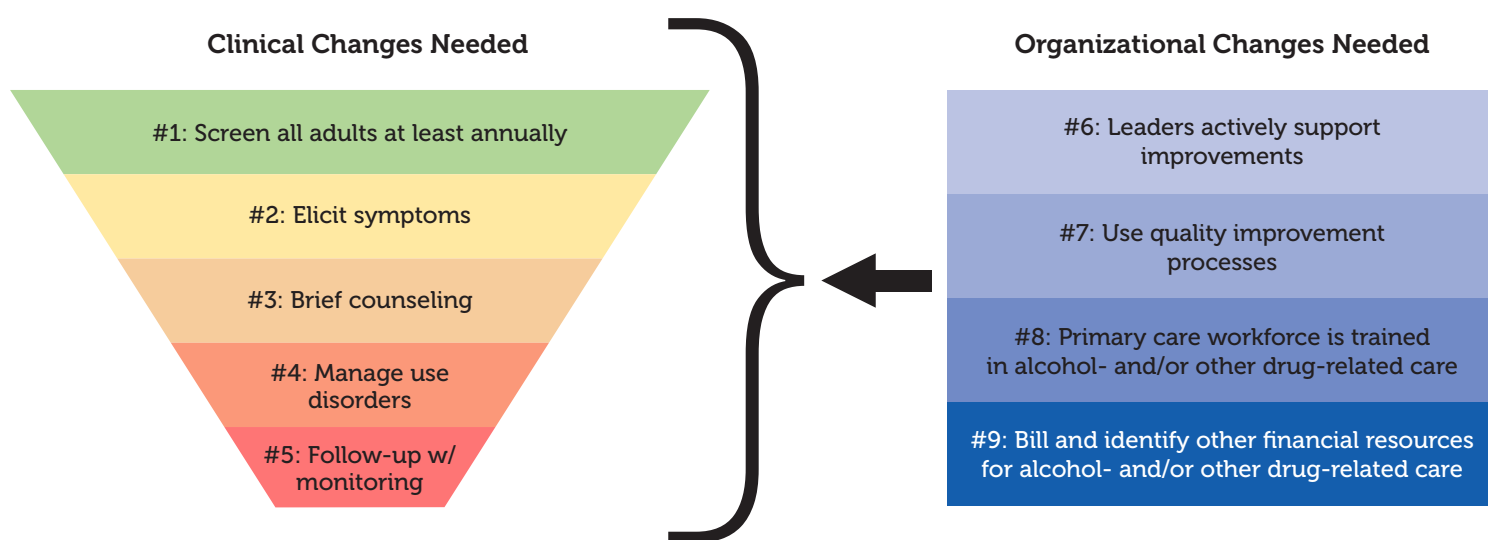
### **Megan O'Grady, PhD**

Technical Writer; Research Scientist & Associate Director of Health Services Research, the National Center on Addiction and Substance Abuse

# Introduction

This change guide is designed to assist primary care clinicians and leaders to integrate care for patients with unhealthy alcohol and/or other drug use into routine medical care. As behavioral health care is increasingly integrated into medical settings, especially primary care, the focus is often on depression and anxiety. Care for alcohol and/or other drugs is often omitted or minimized, likely reflecting: stigma, lack of workforce training/education, and the traditional separation of care for alcohol and other drugs from traditional health care (e.g., primary care, emergency care, and behavioral health, etc.). This guide expands on and updates the widely recognized model of **Screening, Brief Intervention, and Referral to Treatment (SBIRT)**.<sup>1-3</sup>

**Figure 1. Overview of the Changes Needed to Address Alcohol and/or Other Drug Use in Primary Care**



The SBIRT change guide is organized around nine significant changes that most practices need to make to improve alcohol and/or other drug-related care based a consensus of the authors. Five changes relate to components of clinical care and four changes address organizational requirements for implementation of the five clinical changes (Figure 1). Changes #1-3 overlap with the traditional SBIRT model. However, in this guide, “referral to treatment” – the RT in SBIRT – becomes part of a broader program of management in primary care. This reflects the availability of both evidence-based medications and ongoing follow-up and counseling that can be provided in primary care (clinical [Changes #4](#) and [#5](#)), independently or in conjunction with specialty addiction treatment.

Each section outlines the rationale for the change, the specific practices recommended, workflow considerations or components of implementation, and how to measure progress on the recommended change(s) with a recommended target or “benchmark”. This model, which “extends” the SBIRT model, is intended to support practice improvement and integration of care for alcohol and/or other drug use into medical settings, as it builds on previous SBIRT guides. Primary care practices that are already offering SBI for alcohol may also benefit from adding management and monitoring of alcohol and/or other drug use in primary care. It is not expected that all the changes be implemented at the same time. Instead, practices can prioritize which changes to implement based on organizational need, resources, and readiness.

## The Clinical Changes Outlined in Figure 1 are:

- (1) Screen all adults at least annually for unhealthy alcohol use<sup>4,5</sup> and other drug use as part of population-based prevention and treatment.
- (2) Elicit symptoms related to alcohol and/or other drug use from patients with high-positive screens.
- (3) Offer brief counseling for unhealthy alcohol<sup>4,5</sup> and/or other drug use at least annually to all patients with positive screens.
- (4) Manage alcohol and other drug use disorders using shared decision-making<sup>6</sup> to offer medications, counseling, peer support, referral to specialty addiction treatment programs, and/or home-based services.
- (5) Follow-up with monitoring for patients with high-positive screens or symptoms of alcohol and/or other drug use disorders.

## The Organizational Changes Outlined in Figure 1 are:

- (6) Leaders actively support improvements in care for patients with unhealthy alcohol and/or other drug use.
- (7) Use quality improvement processes to implement each of the five clinical changes.
- (8) Train primary care workforce to manage alcohol and other drug use, and/or use disorders, as appropriate.
- (9) Bill and identify other financial resources for alcohol and/or other drug related care.

Measuring Successful Change(s). This guide includes recommended metrics for each clinical and organizational change. They can be used to monitor implementation, inform quality improvement efforts, and quantify progress. Quality improvement and data system infrastructures are an essential foundation for implementation of improved alcohol- and/or other drug-related care.<sup>6-8</sup> In most cases, these metrics and benchmarks are based on consensus recommendations by authors.

# Overview: Recommended Clinical & Organizational Changes

## CLINICAL CHANGES

### Change #1: Screen All Adults at Least Annually

Screen all adult patients ( $\geq 18$  years old) for alcohol and other drug use, at least annually, using a structured screening tool and document the screen scores in the patient's medical record.

- Use the AUDIT-C for alcohol screening and single-item screening questions for cannabis and other drug use (AUDIT-C Plus 2).

### Change #2: Eliciting Symptoms

Use a structured questionnaire to assess and document alcohol- and/or other drug-related symptoms if:

- Patients have “**high-positive**” screening results; and/or
- Patients have a clinical evaluation that suggests possible alcohol and/or other drug use disorder.
- Use recommended Symptoms Checklists or other validated approaches to elicit alcohol- and drug-related symptoms.
- Record questionnaire scores and results in the electronic health record (EHR).
- Use patients' symptoms as a way to engage them in discussions of alcohol- and/or other drug use.

### Change #3: Brief Counseling

Offer brief counseling at least once a year for unhealthy alcohol and/or other drug use to all patients with positive screens.

- Patients with unhealthy alcohol use should be offered patient-centered advice about [recommended limits](#) and feedback linking alcohol use to relevant health conditions, based on U.S. Prevention Services Task Force recommendation.
- Similar counseling can be offered for cannabis use monthly or more often.
- For the subset of patients with high-positive alcohol or other drug screens, experts recommend that patients be offered ongoing, patient-centered brief counseling, repeated at [every visit](#), in addition to care in [Changes #4 and #5](#).

### Change #4: Management

Manage patients with alcohol- and/or other drug-related symptoms: offer repeated visits for brief counseling and shared decision-making regarding treatment options and referral, as appropriate.

- Offer patients shared decision-making about five types of options — medications, one-on-one counseling, peer support, group-based addiction treatment and patient resources for self-management — including providing referral for services not provided in primary care, as needed.
- Continue ongoing brief counseling as above (i.e. repeated visits with primary care provider, integrated mental health clinician or specialty addiction treatment, per patient preference).
- Adapt care based on results of monitoring, changes in symptoms and patient preferences over time.

### Change #5: Follow-up with Monitoring

Arrange follow-up to monitor alcohol and/or other drug use and symptoms with a [structured tool](#) in all patients with high-positive alcohol and/or other drug screens, or reporting symptoms on the Symptom Checklist.

- Select a tool for monitoring patients with symptoms.
- At a minimum, monitor alcohol and/or other drug use and related symptoms, with repeated brief counseling.
- Track alcohol and/or other drug use and symptoms (ideally with a population-based EHR registry).

# Overview: Recommended Clinical & Organizational Changes

## ORGANIZATIONAL CHANGES

### Change #6: Leaders Actively Support Improvements

Leaders actively support improvements in alcohol and other drug-related care.

- All leaders actively articulate the rationale for improving alcohol- and other drug-related care.
- Leaders select change(s) to implement, identify staff to lead the improvement effort, provide time and resources to support implementation, set expectations for targets/timing and monitor and provide feedback on performance.

### Change #7: Use Quality Improvement Processes

Use population-based quality improvement processes for each of the five clinical changes.

- Assess current gaps in alcohol- and other drug-related care.
- Prioritize critical changes to implement (Changes #1 to #5).
- Local implementation team (champions) meets regularly; pilot, then implement.
- Monitor metrics and set up a quality improvement system, e.g. Plan-Do-Check-Act (PDCA).
- Demonstrate progress on selected change concepts at six months.

### Change #8: Train Primary Care Teams

Train primary care teams to address alcohol and other drug use and use disorders in primary care, as appropriate.

- Assess training needs of key staff required for each change.
- Plan training for the entire primary care team (e.g. front desk, staff who conduct patient intakes, primary care clinicians, behavioral health clinicians), including ongoing assessment of needs and new staff onboarding.

### Change #9: Billing and Identifying Other Revenue

Bill for screening, brief counseling, management, and monitoring, and explore other revenue sources to support the cost of provision of alcohol- and/or other drug-related services in primary care.

- If appropriate, use screening and brief intervention, collaborative care or care coordination billing codes.
- Develop a financial model where revenue covers the cost of delivery of alcohol- and other drug-related services.



# Clinical Changes

## Change #1: Screen All Adults At Least Annually

Screen all adult patients ( $\geq 18$  years old) for alcohol and other drug use, at least annually, using a structured screening tool and document the screen scores in the patient's medical record.

<b>Recommendation</b>	Use the <a href="#">AUDIT-C Plus 2</a> which combines screens for alcohol (three items), cannabis (one item) and other drugs (one item), each scored independently.
<b>Metric</b>	Proportion of patients with screening results documented.
<b>Benchmark</b>	80%

## POPULATION-BASED SCREENING FOR UNHEALTHY ALCOHOL AND OTHER DRUG USE

Screening identifies patients who are at risk of health or other problems related to their use of alcohol and/or other drugs, as well as those who have already developed problems.

### Rationale for Screening

- **Unhealthy alcohol and other drug use are common.** One in eight adults consumes alcohol at unhealthy levels and one in 10 people in the U.S. use other drugs.<sup>9</sup> Many patients with alcohol and drug use problems are seen in primary care<sup>10</sup>; screening and treating these conditions are consistent with patient-centered care.
- For **unhealthy alcohol use**<sup>11</sup>, screening and brief counseling—ongoing on repeated occasions—is one of the highest prevention priorities recommended by the U.S. Preventive Services Task Force (USPSTF)<sup>4, 5</sup> based on cost-effectiveness and burden of preventable disease.<sup>12</sup>
- **For other drug use, screening allows clinicians to open a dialogue with patients** about symptoms and other effects on their health and lives.
- **Knowing about patients' alcohol and/or other drug use is critical to high-quality medical care.** Just as for tobacco use, this information helps clinicians to properly diagnose, prescribe medications,<sup>13, 14</sup> and support self-management for chronic diseases (e.g., hypertension,<sup>15</sup> diabetes,<sup>15, 16</sup> hepatitis C virus<sup>17, 18</sup>).
- **Most patients are willing to discuss their alcohol and drug use** and its connection to health<sup>19</sup> and screening has been associated with improved patient satisfaction in several studies.<sup>20</sup>

For individuals at risk for or diagnosed with chronic health conditions (cardiovascular disease, diabetes, stroke, cancer, among others), alcohol and other drug use impacts treatment outcomes via treatment adherence, medication interactions, and physiological effects of alcohol and/or other drug use.

## Change #1: Screen All Adults At Least Annually, CONT.

### Recommended Screening Tool: The AUDIT-C PLUS 2

Screening tools are available that vary in length, time needed to administer, and type of drug screened.<sup>3, 21-25</sup> There are a [number of factors to consider](#) when selecting a screening tool for a particular clinical setting — time needed to administer, validity and reliability, ease of use, and workforce training are just a few. Screens that allow patient self-administration are most efficient and speed workflow. Screening tools that take more than a few minutes to administer may limit the feasibility of screening all primary care patients at least annually. This screen combines validated brief screens for alcohol and other drugs that are easy for patients to answer, yet useful for monitoring changes over time. It can be combined with screening for depression and/or tobacco use.

Varying cultural perceptions of alcohol and other drug use requires clinicians to implement cultural adaptations to effectively support diverse populations. Special attention must be given to validated screeners, appropriate use of language/literacy, trust building, and incorporation of patient and community healthcare preferences. To start, consider selecting tools that are validated in multiple languages, such as the AUDIT-C.

### AUDIT-C Plus 2 Screening Questions<sup>1</sup>

In the past 3 months...

1. How often did you have a drink containing alcohol?	Never 0	Monthly or less 1	2-4 times a month 2	2-3 times a week 3	4+ times a week 4	
2. How many drinks containing alcohol did you have on a typical day when you were drinking?	Never 0	1 or 2 drinks 0	3 or 4 drinks 1	5 or 6 drinks 2	7, 8 or 9 drinks 3	10 or more drinks 4
3. How often did you have 5 or more drinks on one occasion?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4	
4. How often have you used marijuana?	Never 0	Not monthly 1	Monthly 2	Weekly 3	Daily or almost 4	
5. How often have you used an illegal drug or a prescription medication for non-medical reasons*?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4	

\* if patient needs further explanation, "for example, for the feeling or experience it caused."

[Click to Access a PDF of the AUDIT-C Plus 2](#)

<sup>1</sup> The AUDIT-C has been validated with a past-year timeframe and without any timeframe. The authors recommend a past 3-month timeframe so the AUDIT-C can be used for monitoring ("Change #5").

## Change #1: Screen All Adults At Least Annually, CONT.

### INTERPRETING SCREENING RESULTS

This table shows the recommended screening thresholds and clinical implications for the AUDIT-C Plus 2.<sup>3, 26</sup> See the [Appendix](#) for more information on why these screens are recommended.

**Table 1.1 Interpreting AUDIT-C Plus 2 Screening Results**

Screening Measure	Screening Results	Interpretation	Clinical Guidance
AUDIT-C (0-12 points)	Women: < 3 points Men: < 4 points	<b>Negative Screen</b> – lowest risk (if no contraindications for drinking or cannabis use)	<ul style="list-style-type: none"> <li>Consider offering positive feedback and educating patients who drink and use cannabis about:                             <ul style="list-style-type: none"> <li>Recommended drinking limits<sup>27</sup></li> <li>Low-risk cannabis use.<sup>28</sup></li> <li>Health risks of alcohol (e.g. cancers, driving after drinking, pregnancy or planning)<sup>29</sup> and cannabis use (e.g. impaired driving, use disorder).<sup>28</sup></li> </ul> </li> </ul>
Cannabis question (0-4 points)	0-1 points (0 or < monthly)		
Other drugs question (0-4 points)	0 points (no use)		
AUDIT-C (0-12 points)	Women: 3-6 points Men: 4-6 points	<b>Positive Screen</b> – drinks or uses cannabis regularly, at levels that can impact health	<ul style="list-style-type: none"> <li>Brief counseling per <a href="#">Key Elements</a> in a patient-centered manner consistent with motivational interviewing:                             <ul style="list-style-type: none"> <li>Begin conversation, build rapport</li> <li>Provide feedback on screening</li> <li>Provide advice or recommendation</li> <li>Support patient in setting a goal and/or making a plan</li> </ul> </li> </ul>
Cannabis question (0-4 points)	2-3 points (monthly or weekly)		
AUDIT-C (0-12 points)	≥ 7 points <sup>30, 31</sup>	<b>High Positive Screen</b> – drinks, uses cannabis and/or other drugs at a level that is more likely to impact health and therefore needs further assessment	<ul style="list-style-type: none"> <li>Elicit symptoms (<a href="#">Change #2</a>)</li> <li>Ongoing brief counseling (<a href="#">Change #3</a>)</li> <li>Manage alcohol and/or other drug use disorders (<a href="#">Change #4</a>)</li> <li>Follow-up monitoring of use and symptoms and progress towards goal (<a href="#">Change #5</a>)</li> </ul>
Cannabis question (0-4 points)	4 points (daily or almost)		
Other drugs question (0-4 points)	1-4 points (any use)		

[Click to Access a PDF of the Interpreting AUDIT-C Plus 2 Screening Results Table](#)

### WORKFLOW CONSIDERATIONS FOR SCREENING

**What will you screen for—alcohol only or cannabis and/or other drug use, too?** This guide recommends screening for alcohol, cannabis, and other drugs with five questions; however, you should consider what is most feasible for your practice.

**Will it be combined with a screen for other behavioral health issues?** This guide recommends to add the PHQ-2 for depression, if depression screening is not already in place.<sup>32</sup>

**How often will you screen: annually, at each visit, other?** This guide recommends that patients are screened at least annually.

**How will screening questions be administered: computer, paper, staff interview?** The most accurate responses are obtained if patients complete self-report paper or tablets, since reliability of interviews can be low (insensitive<sup>33</sup>). Results should then be recorded in an EHR.

**Will screening questions be built into your EHR?** This is recommended, if possible. Alcohol screening should be entered where other behavioral health screens are entered (e.g., PHQ-2 for depression) so that clinicians can see responses to individual questions, as well as look at trends for scores over time (for monitoring)—([Change #5](#)). If so, work with a programmer or EHR vendor early in your implementation process.

**How will clinicians be sure to see results of screening at the point of care?** Most practices learn that entering results into the EHR before the clinician sees a patient—if possible—is optimal. This allows for a prompt to the team for follow-up care ([Change #2-4](#)). If clinical staff who do vitals or “room” patients are available, they can ask the patient to complete a [Symptom Checklist](#) to assess for alcohol or drug use disorders, if appropriate ([Change #2](#)); clip a patient handout to the chart or enter a template into the EHR to prompt brief counseling ([Change #3](#)); or alert the clinicians to high-positive screens that needs follow-up.

### Using Metrics to Measure Changes in Screening Rates Over Time

The recommended target rate (benchmark) for alcohol and/or other drug screening is 80 percent (rather than 100%) because patients who are in hospice, cognitively impaired, in acute pain, or acutely medically or psychiatrically unstable may not be appropriate for screening. The screening questions can also be used to monitor patient alcohol or other drug use over time<sup>34</sup> (see [Change #5](#)), so that they are appropriate even for patients who have previously screened positive or been diagnosed with alcohol or other drug use disorders (who do not need to be “screened,” per se).

## Change #2: Eliciting Symptoms of Alcohol and/or Other Drug Use Disorders

Use a structured questionnaire to assess and document alcohol- and/or other drug-related symptoms if:

- Patients have “high-positive” screening results (e.g., AUDIT-C scores of 7-12 points, daily cannabis use, any other drug use); and/or
- Patients have a clinical evaluation that suggests possible alcohol and/or other drug use disorder.

<b>Recommendation</b>	<ul style="list-style-type: none"> <li>• Use the recommended <a href="#">Symptom Checklist</a> with a three-month timeframe or a validated approach to elicit common symptoms.</li> <li>• Record results of questions and scores in the EHR.</li> <li>• Use patients’ symptoms to engage them in discussions about alcohol and/or other drug use.</li> </ul>
<b>Metric</b>	Among those with <a href="#">high-positive</a> screen scores, proportion of patients who have documented assessment of alcohol- and/or other drug-related symptoms in their medical record.
<b>Benchmark</b>	80%

### RATIONALE FOR ELICITING SYMPTOMS

A positive alcohol or other drug use screen identifies the spectrum of unhealthy alcohol and drug use from “risky” use that has not yet caused the patient any problems, to alcohol or other drug use disorders with severe impairment.<sup>30, 31</sup> Eliciting symptoms of alcohol and/or other drug use disorders can help determine where patients are on that spectrum.

- Patients’ alcohol and other drug-related symptoms may be powerful motivators of change.
- The recommended Symptom Checklists include:
  - Common problems people have due to alcohol or other drug use,<sup>35</sup> and
  - The 11 criteria for alcohol and/or other drug use disorders, according to the Diagnostic and Statistical Manual 5<sup>th</sup> edition (DSM-5).<sup>36, 37</sup>
- The number of symptoms reflects the severity of alcohol or other drug use disorders.<sup>38, 39</sup>
- As the number of symptoms increases, readiness to change generally increases.<sup>40</sup>
- Once a patient identifies a symptom, the clinician can elicit more details (e.g., “You indicated you sometimes drink more than you want, can you tell me more about that?”).

### When Should Symptoms of Alcohol or other Drug Use Disorders Be Elicited?

Symptoms due to alcohol and/or other drug use disorders should be elicited with a standardized tool if patients:

- Score “high-positive” on an alcohol or other drug screen ([Table 1](#)).<sup>14, 33, 41-53</sup>
- Are trying to change their alcohol and/or other drug use, but have been unable.
- Might benefit from a medication for alcohol or opioid use disorder.

Symptom assessment can also be triggered by other clinical factors such as: vital signs that suggest withdrawal (e.g., blood pressure, pulse), lab work suggesting alcohol and/or other drug use disorders<sup>54</sup> (e.g., abnormal liver enzymes), medications that could be addictive (e.g., opioids, benzodiazepines), psychiatric/medical co-morbidities, and/or severe social or other life problems due to alcohol and/or other drug use.

### Symptom Checklists for Problems Due to Alcohol and Other Drugs

This guide recommends simple [Symptom Checklists](#) with 11 items that can be completed quickly and efficiently. The checklists are based on the DSM-5 diagnostic criteria for alcohol or other drug use disorders<sup>36, 37</sup> with a past three-month timeframe so symptoms can be monitored over time. Elicitation of these symptoms can be used to engage patients in discussions of alcohol- and/or other drug-related problems.<sup>55</sup> The Symptom Checklist can assist with making a diagnosis.<sup>36, 37</sup> The 11 criteria are used to determine the presence of an alcohol or other drug use disorder.

- 2-3 symptoms indicate mild alcohol and/or other drug use disorder.
- 4-5 symptoms indicate moderate alcohol and/or other drug use disorder.
- 6+ symptoms indicate severe alcohol and/or other drug use disorder.

Medication treatment is an option for moderate to severe for alcohol or opioid use disorders (four or more symptoms).

## Change #2: Eliciting Symptoms of Alcohol, Other Drug Use Disorders, CONT.

Alcohol Symptom Checklist			Other Drugs Symptom Checklist		
In the past three months, have you:			In the past three months, have you:		
1.	Had times when you ended up drinking more, or for longer than you intended?	Y N	1.	Had times when you ended up using drugs more, or for longer than you intended?	Y N
2.	More than once, wanted to cut down or stop drinking, or tried to, but couldn't?	Y N	2.	More than once, wanted to cut down or stop using drugs, or tried to, but couldn't?	Y N
3.	Spent a lot of time drinking, being sick after drinking, or getting over the after-effects?	Y N	3.	Spent a lot of time using drugs, being sick after use, or getting over the after-effects?	Y N
4.	Experienced craving — a strong need, or urge, to drink?	Y N	4.	Experienced craving — a strong need, or urge, to use drugs?	Y N
5.	Found that drinking — or being sick from drinking — often interfered with taking care of your home or family, caused job troubles or school problems?	Y N	5.	Found that using drugs — or being sick from using drugs — often interfered with taking care of your home or family, caused job troubles or school problems?	Y N
6.	Continued to drink even though it was causing trouble with your family or friends?	Y N	6.	Continued to use drugs even though it was causing trouble with your family or friends?	Y N
7.	Given up or cut back on activities that were important or interesting to you, or gave you pleasure, in order to drink?	Y N	7.	Given up or cut back on activities that were important or interesting to you, or gave you pleasure, in order to use drugs?	Y N
8.	More than once, gotten into situations while or after drinking that increased your chances of getting hurt (such as driving, swimming, using machinery, walking in a dangerous area or having unsafe sex)?	Y N	8.	More than once, gotten into situations while or after using drugs that increased your chances of getting hurt (such as driving, swimming, using machinery, walking in a dangerous area or having unsafe sex)?	Y N
9.	Continued to drink even though it was making you feel depressed or anxious or adding to another health problem, or after having had a memory blackout?	Y N	9.	Continued to use drugs even though it was making you feel depressed or anxious or adding to another health problem, or after having had a memory blackout?	Y N
10.	Had to drink much more than you once did to get the effect you want, or found that your usual number of drinks had much less effect than before?	Y N	10.	Had to use drugs much more than you once did to get the effect you want, or found that your usual number of drinks had much less effect than before?	Y N
11.	Found that when the effects of alcohol were wearing off, you had withdrawal symptoms, such as trouble sleeping, shakiness, irritability, anxiety, depression, restlessness, nausea or sweating, or sensed things that were not there?	Y N	11.	Found that when the effects of drugs were wearing off, you had withdrawal symptoms, such as trouble sleeping, shakiness, irritability, anxiety, depression, restlessness, nausea or sweating, or sensed things that were not there?	Y N

[Access a PDF of the Symptom Checklists](#)

### WORKFLOW CONSIDERATIONS FOR ELICITING SYMPTOMS

**How soon after a high positive screen should symptoms be elicited?** Ideally, symptoms can be assessed the same day as a high positive screen, but if there are competing priorities that make that impossible, this guide recommends eliciting symptoms within 3 visits.

**Which healthcare clinician or staff will administer the Symptoms Checklist?** One approach is to have the person who rooms patients collect screens and give the Symptom Checklist to patients to fill out before the appointment.

**How often will the checklist be administered once a patient has screened as high-positive?** At the time of a high-positive screen and annually thereafter, unless it is being used for monitoring.

**Will Symptom Checklists be built into the EHR?** If yes, it is recommended that you start working with a programmer or your EHR vendor very early in your implementation process.

**Who will enter results into the EHR so that they can be monitored over time?** The person who gives patients the questionnaires can typically enter results into the EHR at the same time so they are available for all clinicians.

### Measuring the Proportion of Eligible Patients Who Complete Symptom Checklists

The recommended target rate (benchmark) for completion of alcohol and/or other drug Symptom Checklists is 80 percent among those with high-positive screen scores. This is not 100 percent because these assessments may not be appropriate for patients who are in hospice, cognitively impaired, in acute pain, or acutely medically or psychiatrically unstable, or when other more urgent clinical matters need to be prioritized.



## Change #3: Brief Counseling

Offer brief counseling at least once a year for unhealthy alcohol and/or other drug use to all patients with positive screens.

<b>Recommendation</b>	<ul style="list-style-type: none"> <li>Patients with unhealthy alcohol use should be offered patient-centered advice about <a href="#">recommended limits</a><sup>27</sup> and feedback linking alcohol use to health conditions relevant to the patient,<sup>56</sup> based on USPSTF recommendation.<sup>4, 5</sup></li> <li>Similar counseling can be offered to patients with at least weekly-to-monthly cannabis use.<sup>28</sup></li> <li>For the subset of patients with high-positive alcohol or other drug screens, experts recommend that patients be offered ongoing, patient-centered brief counseling, repeated <u>at every visit</u>, in addition to care outlined in Changes #4-5.</li> </ul>
<b>Metric</b>	<p>Among patients with positive screens for alcohol and/or other drug use, the proportion who have brief counseling documented in their medical records in the last year.</p>
<b>Benchmark</b>	<p>80%</p>

### Why Offer Brief Counseling for Unhealthy Alcohol and/or Other Drug Use?

Brief counseling for unhealthy alcohol use results in decreased drinking among adults with unhealthy alcohol use.<sup>4, 5</sup> Given the burden of preventable alcohol-related health conditions, and the possible cost-effectiveness of brief counseling,<sup>57</sup> the U.S. Commission on Prevention Priorities ranked brief alcohol counseling one of highest priority preventive services for U.S. adults.<sup>12</sup>

While brief counseling on one or two occasions has not been shown to decrease use of other drugs, one study with repeated brief counseling suggested it may be effective.<sup>58</sup> Patient-centered discussions about drug use can also help identify drug use disorders, so that patients can be offered treatment.

The specific elements of brief counseling for patients with unhealthy alcohol and/or other drug use are outlined below in [Table 2](#), broken into three groups based on the results of screening. However, the frequency and intensity of brief counseling will depend on the severity of alcohol and/or other drug use, as reflected by the screening score(s) and drug(s) used, symptoms of alcohol and/or other drug use disorders(s), and clinical knowledge of the patient.

### TABLE 2. KEY ELEMENTS OF BRIEF COUNSELING

In this section, expert opinion is outlined on elements of brief counseling that can be offered by primary care clinicians, or expanded on by behavioral health clinicians who practice in primary care. All elements are offered using the style and skills from **Motivational Interviewing** (MI). Components of MI are: open-ended questions, reflective listening, asking permission before offering advice, eliciting the patient's perspective after information is provided, and eliciting statements from the patient for why they want to change. After each step, it's recommended the clinician elicit the patient's thoughts. Any goal setting should be arrived at using **shared decision-making**.

#### 1. Begin the conversation—build rapport

The first task is to build rapport and communicate caring, concern, and non-judgement. Elements included are:

- Ask patients if it is okay with them to discuss alcohol and/or other drug use. This can be repeated with each step below ("Is it okay if I provide some information on results of your screening?").
- Ask open-ended questions about how alcohol and drugs fit into the patient's life. Explore what types of alcohol they drink and/or which other drugs they use, with whom, when, where ("Tell me about...").

#### 2. Provide feedback on results of screening and assessment

The next task is to share with the patient the relevance of alcohol and/or other drug use to his/her health, while making it clear the clinician respects the patient to make the choices that are right for him/her.

- Explore the patient's experience ("When you completed our form you noted sometimes you are drinking more than you want. Can you tell me about that?").
- Connect alcohol and/or other drug use to health: specifically link alcohol and/or other drug use to any symptoms or conditions the patient has or is concerned about, if possible. ("While I hear that drinking is a critical part of your social life, I'm concerned it may be raising your blood glucose.")
- Elicit patients' thoughts ("What do you make of this information?").

#### 3. Provide advice or a clinical recommendation

Recommendations depend on the patient, drug(s) used, severity of use and symptoms, and resources. Management of patients with high-positive screens, symptoms, or alcohol and/or other drug use disorders are addressed in **Change #4**, but brief counseling based on MI and decision-making provides the foundation of ongoing management.

- For alcohol, all patients should be advised about recommended drinking limits that decrease the risk of developing or re-developing adverse consequences due to drinking (National Institute on Alcohol Abuse and Alcoholism [NIAAA] provides **guidelines** on recommended limits).
- For less than daily cannabis use, explore reasons for use (medical, recreational) and ways to minimize health risks.
- For patients with alcohol and/or other drug use disorders, stopping use improves outcomes.
- Give patients the opportunity to express desires, reasons, commitment, and ability to change.

#### 4. Support the patient in setting a goal and making a plan

- Explore options that the patient feels are realistic and obtainable.
- Arrange follow-up to monitor and adapt management.

### WORKFLOW CONSIDERATIONS FOR BRIEF COUNSELING

**Which healthcare clinicians or staff will offer ongoing brief counseling?** Often this will be provided by the primary care clinician but sometimes, when a patient has a high-positive screen, alcohol or other drug use disorder, or other mental health conditions, a warm hand-off to an integrated behavioral health clinician (if available) is optimal.

**How often will brief counseling be provided?** This will depend on the severity of symptoms (if any) and the resources of the medical setting. At a minimum, patients with alcohol and/or other drug use disorders should be scheduled for follow-up and monitoring quarterly, even if they are not interested in treatment.

**When does brief counseling fit in during the visit?** Offering brief counseling can often be linked to the chief complaint (e.g., hypertension, insomnia, fracture) or can be added at the end of the appointment after asking permission to discuss the patient's screening. If the counseling is offered by an integrated behavioral health clinician, it can be after the appointment with the primary care clinician.

**How will the brief counseling session be documented?** If counseling is part of an appointment billed with an E&M code, the counseling can be documented with a non-billable z-code. When a warm hand-off to an integrated behavioral health clinician occurs, brief counseling can be documented with an SBI code if >15 minutes and not part of another appointment.

### Using Metrics to Measure Changes in Counseling Rates Over Time

If screening is recorded with an EHR registry, measurement of documented brief counseling can also use the EHR registry, either through a field that notes this was done, via billing codes, or non-billable z-codes. If paper charts are used, then some number of chart reviews for patients who had positive screens can be performed to assess "crude" brief counseling percentages.

## Change #4: Management of Alcohol or Other Drug Use Disorders

**Manage patients with alcohol- and/or other drug-related symptoms: offer repeated visits for brief counseling and shared decision-making regarding treatment options and referral, as appropriate.**

<p><b>Recommendation</b></p>	<p>Offer patients shared decision-making about five types of options and refer as needed if services are not available in primary care.</p> <ul style="list-style-type: none"> <li>○ Medications such as naltrexone and acamprosate for alcohol disorders and buprenorphine naltrexone, or methadone for opioid use disorders in primary or specialty care.<sup>59</sup></li> <li>○ One-on-one behavioral treatments for alcohol and/or other drug use disorders by a behavioral health clinician (e.g., cognitive behavioral therapy, motivational enhancement therapy),<sup>1, 60, 61</sup> which can be integrated into primary care.<sup>64</sup></li> <li>○ Peer support groups (e.g., Alcoholics, Narcotics Anonymous (AA, NA,<sup>62</sup> SMART Recovery<sup>63</sup>).</li> <li>○ Group-based treatment as provided by most specialty addiction treatment programs.</li> <li>○ No treatment at this time, but possible self-management, with continued primary care support with monitoring and motivational interviewing.</li> </ul> <ul style="list-style-type: none"> <li>● Continue ongoing brief counseling. Provide ongoing alcohol- and/or other drug-related care (i.e., repeated visits)—within primary care, mental health, or specialty addiction treatment settings, per patient preference—to support self-management and change.</li> <li>● Adapt care based on results of monitoring and changes in symptoms and patient preferences.</li> </ul>
<p><b>Metric</b></p>	<p>Among patients with alcohol and/or other drug use symptoms on a structured tool, the proportion who have a follow-up visit that addresses alcohol and/or other drug use within 90 days.</p>
<p><b>Benchmark</b></p>	<p>80%</p>

### Rationale for Managing Alcohol and/or Other Drug Use in Primary Care

- Alcohol and/or other drug use disorders are common conditions appropriate for long-term primary care.<sup>64</sup>
  - Management in primary care offers patients more immediate care within a familiar system.<sup>65</sup>
  - Specialty addiction treatment is often not available.
- Many patients don't feel like their problems require "treatment," so they don't accept a referral,<sup>66, 67</sup> but they can succeed in patient-centered primary care.
- Even when patients do accept referral to specialty treatment, drop-out rates may be high, and unless patients are treated with medications, treatment is usually short-term (12 weeks), and many patients still need chronic management in primary care.
- A number of studies have demonstrated how alcohol and/or opioid use disorders can be managed in primary care.<sup>1, 68-75</sup>

### Options for Managing Patients in Primary Care

- Medication
- Counseling
- Referral to group-based addiction treatments
- Peer support
- Primary care support for self-management

### ELEMENTS OF PRIMARY CARE MANAGEMENT

Treatment of alcohol and/or other drug use disorders can include medications and counseling, encouraging peer support, referral to specialty addiction treatment (in the medical setting or in the community) and support for patient self-management. Utilizing the collaborative care consulting methodology, either virtually or onsite, primary care physicians may benefit from the expertise of addictions specialists. Sites may choose to embed this practice within regular supervision or through contracting with a colleague for ad hoc consultation on complex cases.

#### Medications for Alcohol and Drug Use Disorders

Medications for alcohol use disorders (AUDs) improve response to behavioral treatment,<sup>59,76</sup> and naltrexone can decrease heavy drinking as well.<sup>70</sup>

- The FDA has approved three medications for alcohol use disorders: naltrexone, acamprosate, and disulfiram. These medications can be prescribed in primary care with medication management focused on assessing use and symptoms, recommending abstinence in a patient-centered manner, medication adherence, and encouraging participation in peer support.<sup>70</sup> Follow-up can be every 1-2 weeks for 2 months and then monthly when patients are stable.
- Care management by a nurse, recommending abstinence and naltrexone, is associated with improved engagement in alcohol-related care and decreased drinking compared to “referral to treatment” in primary care patients not seeking addiction treatment.<sup>70</sup>

Two medications for opioid use disorders (OUDs)<sup>71, 77</sup>—methadone or buprenorphine—improve patient outcomes for OUDs, and are far superior compared to counseling and other behavioral treatments alone.<sup>78, 79</sup> Opioid use disorders due to heroin and prescription opioids are responsive to these treatments.<sup>80</sup> Methadone and buprenorphine both lead to decreased mortality and morbidity for patients on these medications long-term (i.e. maintenance therapy). Evidence for the effectiveness of injectable, extended release naltrexone is emerging.<sup>81</sup>

- Buprenorphine can be prescribed in primary care by primary care providers who have a buprenorphine waiver from the DEA (requiring an 8-hour course that can be taken online).<sup>71, 81, 82</sup> Free virtual mentorship for treating OUDs with buprenorphine is also available.<sup>82</sup>
- Extended release naltrexone can also be prescribed in primary care with monthly injections.

OUDs can only be treated with methadone in special Outpatient Treatment Programs approved for methadone maintenance.

- Care management for OUDs is associated with high rates of retention, and a central part of primary care management.
- Medication to prevent opioid overdose if patients are still using opioids or at risk of relapse.
- Naloxone (Narcan—not to be confused with naltrexone) can decrease death due to overdose.

### ONE-ON-ONE COUNSELING

Motivational Interviewing, cognitive behavioral therapy (CBT), and other one-on-one counseling approaches are effective for alcohol and/or other drug use disorders.<sup>60, 61</sup> A primary care trial suggests a six session CBT/MI brief therapy is effective when provided to patients not seeking treatment by an integrated behavioral health clinician in primary care.<sup>1</sup> The FDA recently approved a proven digital counseling program for alcohol and/or other drug use disorders.<sup>83</sup>

#### Encourage Participation in Peer Support<sup>84, 85</sup>

Peer support groups can help patients who want to make changes. AA is associated with improved outcomes, in part due to new social networks. Alternatives to AA and other twelve-step programs, like Self-Management and Recovery Training (SMART) recovery<sup>63</sup> provide an alternative for those who are uncomfortable with the spiritual component of AA.

#### Referral to Specialty Addiction Treatment

- Referral to specialty treatment options. A small percentage of patients may need and be open to referral to specialty alcohol and/or other drug treatment. It is important to improve engagement in treatment by having protocols and procedures for linking patients to internal (within the same organization) or external treatment resources. In order to optimize the chances of a successful specialty treatment referral, it is crucial to develop a standard and consistent workflow.
- Specialty addiction treatment in the medical setting. When internal specialty addiction treatment is available, the ease of linking to treatment may have significant advantages, such as: capability for warm hand-offs; documentation within the same medical record and collaboration with primary care. Even with these seeming advantages, a detailed workflow is highly recommended with defined roles in order to achieve high engagement rates.
- External addiction treatment programs. When internal resources are not available, forging strong partnerships with external addiction specialists is essential to improving access to care and improving patient satisfaction. Successful referrals to external services require addiction specialists and primary care clinicians to communicate, collaborate, and evaluate the effectiveness of the relationship. Identification of available, accessible treatment resources is key and developing functional partnerships with external specialty addiction treatment clinicians in the community will improve patient care.
- Confidentiality of Care in Specialty Addiction Treatment Programs. Confidentiality must be considered when making referrals for specialty addiction treatment. Sharing of treatment information is strongly recommended and documented patient consent to share addiction treatment program information is legally required under 42CFR Part II. For more information, see [SAMHSA's A Guide to Substance Abuse Services for Primary Care Clinicians.](#)
- Monitoring in primary care after treatment. If a patient is referred to specialty addiction treatment, the primary care team should follow-up to determine if the patient engaged in treatment, and to monitor response to, and for relapse after, treatment.
- Resources regarding specialty addiction treatment.
  - Selecting from a spectrum of treatment intensities. See [Appendix](#) or an overview of levels of care for alcohol and other drug use disorders.
  - Successful referral practices for alcohol and/or other drug use disorders. See [Appendix](#) for more information.
  - See [Management Resources](#) in the Appendix for more information on treatment options.

### SHARED DECISION-MAKING

In shared decision-making, clinicians work collaboratively with patients when there are multiple options for care—for example, considering treatment options for alcohol or opioid use disorder (e.g., medications, counseling, group-based specialty addiction treatment, peer support, or self-management). Shared decision-making is particularly important when the patient has to execute the treatment—as in behavior change—as well as when choices patients might make would differ from those clinicians might recommend.<sup>86</sup> When offering shared decision-making, clinicians help patients understand they have choices (including no treatment), provide information comparing options, elicit patient values and preferences, and support them in making a decision that fits them best.<sup>70, 87</sup> In shared decision-making, the patient is the expert.<sup>88</sup> Shared decision-making is essential to patient-centered care for alcohol and/or other drug use disorders.<sup>35</sup> There is a progression of steps when using shared decision-making that help patients make informed decisions.<sup>89</sup>



- Clinicians inform patients on choices: medications, one-on-one counseling, group-based treatments, peer support, and no treatment (but continued primary care support), depending on the patients' alcohol and/or other drug use disorder and the availability of treatments in the community.
- Patients' preferences, values, and priorities are considered. These include, but are not limited to: privacy, logistics, cost, and preferred treatment approaches.
- Patients should be supported in making a decision and accessing treatment.
- Provision of decision aids (print, video, and/or online resources) can assist in helping the patient and clinician better understand and weigh options together. A [decision aid tool](#) for opioid use disorder treatment is available through SAMHSA.

### Patient Self-Management with Repeated Brief Counseling and Monitoring in Primary Care

Patients with alcohol and/or other drug use disorders who are not interested in medications for AUD or OUD, counseling, specialty treatment, or peer support, should nonetheless be offered repeated brief counseling with MI and shared decision-making in primary care. Several studies support repeated brief counseling for high-risk drinking and/or alcohol and/or other drug use disorders.<sup>58, 68-70</sup>

Treatment of comorbid mental health and/or medical conditions may also be used to build rapport and engagement in treatment, or can lead to changes in alcohol and/or other drug use.

## Change #5: Follow-Up With Monitoring

Arrange follow-up to monitor alcohol and/or other drug use and symptoms with a structured tool in all patients with high-positive alcohol and/or other drug screens, or reporting symptoms on the Symptom Checklist.

<p><b>Recommendation</b></p>	<p>Select a tool for monitoring patients with symptoms.</p> <p>At a minimum, monitor frequency of use with the <a href="#">AUDIT-C Plus 2</a> every three months.<sup>90</sup></p> <ul style="list-style-type: none"> <li>• Ideally, also monitor symptoms of use (questions #2-5 of the <a href="#">Short Alcohol Monitor</a> and/or <a href="#">Short Drug Use Monitor</a>).</li> <li>• Ideally, monitor whether patient is achieving their own goals regarding alcohol and/or other drug use (Questions #1 of the <a href="#">Short Alcohol Monitor</a> and/or <a href="#">Short Drug Use Monitor</a>). If patients are not responding to treatment, reassess with MI and shared decision-making and adapt or change treatment(s).</li> </ul> <p>Repeated visits for monitoring should include: repeated brief counseling with MI and shared decision-making, tracking alcohol and/or other drug use and symptoms, and patient self-assessment of alcohol and/or other drug use.</p> <p>Develop tracking protocols (e.g., EHR registry) for ensuring population-based follow-up based on clinical severity, at least every three months.</p>
<p><b>Metric</b></p>	<p>Among patients with high-positive screening scores or alcohol- or other drug-related symptoms, proportion who have a follow-up contact within three months of high-positive screening score or report of alcohol- or other drug-related symptoms.</p>
<p><b>Benchmark</b></p>	<p>80%</p>

### Rationale

Follow-up with systematic symptom monitoring is critical for knowing:

- Whether patients' symptoms are increasing or decreasing.
- Whether or not patients treated with medications or counseling in primary care are benefiting and if they are achieving their goals.
- When treatment needs to be changed or augmented if there is not adequate improvement.



### WHAT ARE THE IMPORTANT COMPONENTS OF FOLLOW-UP WITH MONITORING?

#### 1. Monitoring: systematic measurement over time to guide care

Quality improvement research over the past 20 years has shown that whether one is treating hypertension, diabetes, or depression, measurement-based care improves outcomes. Unfortunately, unlike depression (for which there is widespread use of the PHQ-9 to monitor symptoms and response to treatment), there is no standard practical approach to systematic monitoring of alcohol and/or other drug-use and symptoms in primary care. However, several systems have successfully used alcohol and/or other drug use screening questions for monitoring,<sup>91</sup> and validated discriminating questions for alcohol and/or other drug use disorders have been identified by the National Institute of Health (NIH) Patient-Reported Outcomes Measurement Information System (PROMIS).<sup>92, 93</sup>

Important dimensions of alcohol and/or other drug use to monitor likely include:

- The extent to which alcohol or other drug use is interfering with patients' goals (family, relationships, health).
- Severity of consequences due to alcohol and/or other drug use.
- Severity of symptoms of loss of control over alcohol and/or other drug use or craving.
- Level of current alcohol and/or other drug use.

Experience with depression management in primary care indicates that brief instruments should be used for monitoring. Thus, this guide recommends use of the AUDIT-C Plus 2 screening questions, at a minimum (with a past three-month timeframe). Additionally, this guide recommends five-item tools to monitor symptoms and functioning – one for alcohol and one for other drugs, as outlined in the following table. These ten items can be administered along with the AUDIT-C Plus 2. Questions #2-5 are adapted from the PROMIS.<sup>94,92, 93</sup>

Short Alcohol Monitor	Short Drug Monitor
How often in the past 2 weeks...	How often in the past 2 weeks...
1. Were you bothered by how your drinking impacted your health, relationships, goals or life?	1. Were you bothered by how your drug use impacted your health, relationships, goals or life?
2. Did you have trouble controlling your drinking, drink too much or spend too much time drinking?	2. Did you spend a lot of time using drugs?
3. Was it difficult to get the thought of drinking out of your mind?	3. Were drugs the only thing you could think about?
4. Did you disappoint yourself or others due to drinking?	4. Did you disappoint yourself or others due to drug use?
5. Have you had trouble getting things done due to drinking?	5. Did you feel your drug use was out of control?

\*Response choices for all: Never, Rarely, Sometimes, Often, Almost Always

Alternative options for monitoring are the full AUDIT (alcohol),<sup>22</sup> CUDIT<sup>95</sup> (cannabis), and DUDIT<sup>96</sup> (other drugs). For these tools, the monitoring timeframe should be adjusted from one year to three months. The ASSIST<sup>97, 98</sup> can also be used. Another alternative is to monitor with the Alcohol or Drug Use [Symptom Checklists](#). These tools may have merit, but they are longer and more specific to individual drugs. Nevertheless, these may be reasonable options in settings where these tools are already being used systematically.

### 2. Repeated brief counseling as part of monitoring

Given the considerable impact of alcohol and/or other drug use disorders on patients' health and well-being, it is appropriate and essential to incorporate routine follow-up for all patients with symptoms of alcohol and/or other drug use disorders into standard care. Research shows that brief multi-contact counseling, as described previously, along with shared decision-making, is effective. Comorbid medical conditions (e.g., anxiety, depression, HCV) can be managed concurrently.

### 3. Medication management, integrated with monitoring, as appropriate

For patients on medications, close follow-up is important to assess for side-effects and monitor adherence. Care management for medications for alcohol use disorders often includes encouraging peer support, while monitoring for medications for opioid use disorders often includes urine drug screens.

### 4. Monitoring after referral—both internal to the health care organization and external

Some patients with alcohol and/or other drug use disorders will benefit from specialty addiction treatment or other mental health services for comorbid conditions. When patients choose specialty treatment, clinicians must be prepared to support patients connecting to treatment resources and to follow-up after the patient engages in specialty treatment.

## WORKFLOW CONSIDERATIONS FOR FOLLOW-UP WITH MONITORING

**Who will schedule follow-up? Will it be in person or by phone?** This will depend on patients' other medical conditions and treatments, how soon they are willing to return or have a phone appointment, and co-pays.

**How often?** This guide recommends monitoring at least quarterly.

**Who will do the monitoring?** Generally, monitoring fits into the workflow just as screening does.

**How will the system know if a patient does not make a follow-up appointment or cancels?** EHR registries can assist a behavioral health clinician in primary care or a nurse managing a population of patients with alcohol and/or other drug use disorders.

**What communication strategies will be used between internal and/or external behavioral health clinicians?** An EHR registry as above can also assist in monitoring patients who are receiving outside treatment.

# Organizational Changes

## Change #6: Leaders Actively Support Improvements

### Leaders actively support improvements in alcohol and other drug-related care.

<b>Recommendation</b>	<p>Leaders at all levels of the organization actively articulate the rationale for integrating improved alcohol- and/or other drug-related prevention and management as part of primary care.</p> <p>Leaders need to:</p> <ul style="list-style-type: none"><li>• Select the clinical change(s) to implement (#1-5).</li><li>• Identify champions to lead the alcohol and/or other drug use quality improvement effort in each clinic (implementation team).</li><li>• Provide time and resources to support implementation.</li><li>• Set expectations for targets and timing and provide monitoring and feedback on performance.</li></ul>
<b>Metric</b>	Leadership selects an implementation team and prioritizes one or more clinical Changes (#1-5) to be implemented.
<b>Benchmark</b>	Implementation meets benchmark(s) for the clinical change selected (#1-5) within six months.

### Rationale

Clinical Changes #1-5 are complex changes to the way patient care is provided for all primary care team members. Leaders, at all levels of a health system, need to actively support clinical changes to ensure successful and sustained implementation.

### What is active leadership support?

Active support for improvements in alcohol and/or other drug use in primary care includes:

Leaders select which change to implement. Leaders can start by assessing gaps in alcohol- and/or other drug-related care or can select the first change(s) to implement based on knowledge of their clinic(s). Often, clinics start with screening ([Change #1](#)), eliciting alcohol and/or other drug related symptoms with a standard tool ([Change #2](#)), and brief counseling ([Change #3](#)) – “SBI” or “SBIRT”. While 15-25 percent of patients will have unhealthy use of alcohol or other drugs, only 1-2 percent of patients typically screen high-positive or have alcohol and/or other drug use disorders. However, addressing management of alcohol and/or other drug use disorders ([Change #4](#))—and staff training needs regarding management—can improve clinician comfort when those patients are identified.

## Change #6: Leaders Actively Support Improvements, CONT.

### ROADMAP FOR CLINIC LEADERSHIP SUPPORT

**Set implementation in motion.** If large health system, leader(s) select pilot clinics and key gap(s) in quality via assessment of the current state. Leaders select initial change (#1-5) to implement, tools, and targets.

**Select and empower interdisciplinary local implementation team.** Explain the gap and expectation for change to the local implementation team. Leaders arrange for workforce development for local implementation team.

**Leaders kick-off initial pilot** with primary care clinician champion(s) and medical assistant or dyad partner(s). Pilot includes iterative huddles or meetings to problem-solve challenges (Plan-Do-Check-Act [PDCA]).

**Oversee iterative improvement.** Local implementation team meetings occur weekly/biweekly (1 hour). Leaders review progress monthly at quality improvement (PDCA) meetings.

**Support the importance of the work.** Communicate expectations to leaders at all levels of the organization regarding importance of the quality improvement effort. Leaders at all levels continually spread positive stories.

**Consider hiring a dedicated care manager/coordinator** or expanding the role of health coaches or care managers to include alcohol and/or other drug use.

### Other Considerations

**Identifying staff to lead quality improvement in the clinics:** Identify an interdisciplinary team in each clinic to be responsible for implementation of a selected change. This should include at a minimum: a primary care physician/clinician, support staff (e.g., nurse, medical assistant, or health tech), and an integrated behavioral health clinician, if one practices in the clinic. Other suggested champions include: front desk staff, administrative leadership or staff, float staff, pharmacists, a quality improvement expert, billing representative, peer navigators, other key clinic personnel, and a clinical EHR programmer for assistance with EHR development and adjustments.

**Committing resources:** Provide an initial financial investment of time for local implementation team meetings and piloting, time for clinicians to partner with IT/programmers to develop EHR decision support, time for work force development, commitment to staffing with behavioral health clinicians in primary care (e.g., social work, nurses), support for data analytics for timely reports on metrics, and time to identify and partner with community resources.

**Monitoring and feedback:** Attend/lead regular quality improvement meetings to review metrics and problem-solve using PDCA, and to hold direct reports accountable for measurement and meeting selected targets.

**Leadership provides ongoing support for the value and the importance of the changes:** Leaders tell stories about the central value of the work and frontline experience of success.

**Augmenting the primary care team:** Consider hiring a dedicated care manager or care coordinator, preferably with a behavioral health background to help manage patients with alcohol and/or other drug use disorders in addition to other behavioral health needs. Care coordinators, typically nurses or social workers, provide services like case management, medication management, monitoring of patient health status, and counseling and support for patient self-management of their alcohol and/or other drug use. Peer navigators can also help connect patients to needed resources.

## Change #6: Leaders Actively Support Improvements, CONT.

**Establishing and maintaining partnerships with specialty addiction treatment services:** For internal partnerships, leaders create the platform for internal planning discussions and sponsor the infrastructure needed to support the collaboration. If the partnership is external, leaders broker the arrangement and maintain a relationship with the partner leadership team, to develop seamless communication pathways and follow-up. This is especially critical given that 42 CFR Part II requires specific written documentation of consent for sharing information from a specialty addiction treatment program.

**Troubleshooting challenges and celebrating small successes:** Leaders problem-solve barriers and highlight the incremental successes that lead to achieving organizational change.

## Change #7: Use Quality Improvement Processes

### Use population-based quality improvement processes for each of the five clinical changes.

<b>Recommendation</b>	<ul style="list-style-type: none"> <li>● Assess current gaps in alcohol and/or other drug-related care.</li> <li>● Prioritize clinical Changes(s) #1-5 to implement.</li> <li>● Local implementation team members (i.e., champions) meet regularly: pilot, then implement.</li> <li>● Monitoring metrics by establishing a quality improvement system (e.g., PDCA).</li> <li>● Demonstrate progress on selected change concepts at six months.</li> </ul>
<b>Metric</b>	Prioritized changes are in rapid cycle pilot testing within 2 months and implemented at six months and sustained at 12 months
<b>Benchmark</b>	100%

### Rationale

Implementing improved alcohol and/or other drug care is a major quality improvement (QI) initiative, not dissimilar from other primary care QI projects focused on the triple aim. In June 2017, the National Committee for Quality Assurance added the Unhealthy Alcohol Use Screening and Follow-Up measure to the Healthcare Effectiveness Data and Information Set (HEDIS) 2018 for health plan reporting. This measure assesses the percentage of health plan members eighteen years and older who were screened for unhealthy alcohol use and, if screened positive, received appropriate follow-up care within two months. As health systems move toward EHRs, building structured fields and approaches for standardized screening tools and follow-up care will encourage screening and allow easier monitoring of quality of care. Clinician education on evidence-based models, as well as aligned incentives to offer screening and follow-up, will help encourage their administration.

To achieve the goal of sustainable alcohol- and/or other drug-related care, attention must be given to: 1) planning for implementation, 2) piloting to make rapid cycle changes to refine workflow before changes are disseminated to others in a clinical practice, 3) assessing the pilot impact and outcomes, and 4) creating organizational buy-in to spread changes in workflow to the entire clinical practice.

### ROADMAP FOR QUALITY IMPROVEMENT

#### 1. Planning for implementation

**Prioritize change(s) to implement.** Identification of key gap(s) via assessment of the current state and selection of CHANGE (#1-5), tools and targets. (If not selected by leadership, leadership support must be obtained.)

**Develop and execute a plan to measure processes of care.** A process is needed for systematically tracking clearly defined care processes.

**Interdisciplinary local implementation team.** Start by describing the current organizational state and plan an approach to change. Identify gaps in workforce knowledge and skills and plan for workforce development, first for the local implementation team, and then for all staff.

#### 2. Piloting

**Engage primary care clinician champion(s),** including primary care clinician(s) and dyad partner(s) (e.g. medical assistant) in planning.

**Conduct a pilot.** One or two dyads test the workflow, until an efficient process is developed.

#### 3. Pilot Team assesses outcomes and refines workflow

**Review performance.** The local implementation team evaluates data on processes of clinical care during piloting, ideally using metrics for the targeted clinical change (#1-5) and data from the EHR.

**Problem-solve barriers and identify facilitators** of efficiently providing the desired care in a patient-centered manner.

**Adjust workflow** as needed, and repeat with iterative PDCA cycles: piloting for 1-5 days, evaluating, refining and piloting again until targets are met for the pilot team.

#### 4. Launch clinical change to the remainder of the clinical practice **Prepare and train all staff. Workforce development is critical, and includes all individuals who work in the clinical practice. See [Change #8](#) below.**

**Launch.** After all staff have been trained and prepared for launch, start the new process (the clinical change) on a specified day.

**Continue iterative PDCA meetings.** The local implementation team now meets to review the entire clinical practice's data weekly-monthly.

**Problem-solve challenges** and share positive stories with the clinic in huddles or meetings.

**Regular meetings with leaders to monitor metrics and plan next steps.** Leaders review progress monthly at quality improvement (PDCA) meetings. After one change has been successfully implemented, select the next.

## Change #8: Train Primary Care Teams

**Train primary care teams to address alcohol and other drug use and use disorders in primary care, as appropriate.**

<b>Recommendation</b>	<ul style="list-style-type: none"><li>• Assess training needs of key staff for each change.</li><li>• Plan training for the entire primary care team (e.g., front desk, staff who conduct patient intakes, primary care clinicians, behavioral health clinicians).</li><li>• Ongoing assessment of training and work force development needs.</li><li>• Plan training for new staff onboarding.</li></ul>
<b>Metric</b>	<ul style="list-style-type: none"><li>• Training needs are identified during pilot testing (within 2 months)</li><li>• Training implemented before launch</li><li>• Additional training needs evaluated at 3, 6, and 12 months</li></ul>
<b>Benchmark</b>	100%

### Rationale

It is critical to have a primary care workforce that is prepared to provide non-judgmental, patient-centered care for alcohol- and/or other drug-related care. Therefore, training all clinic staff is recommended. It can be helpful to address the stigma surrounding alcohol and/or other drug use disorders in trainings. Videos and handouts have been developed to facilitate patient-centered care (e.g., "[A ReThink of the Way We Drink](#)").

### Common Training Needs

Addressing stigma—and the crucial need for non-judgmental approaches—should be woven through all training. Below is an outline of possible training needs. See [Appendix](#) for training resources.



## Change #8: Train Primary Care Teams, CONT.

**Table 8.1 Outline of Possible Training Needs**

	<b>Primary Care Clinician (MD, NP, DO, PA)</b>	<b>Medical Assistant, Health Technician, Nurse</b>	<b>Behavioral Health Clinician Practicing in Primary Care (Social Work, etc.)</b>
<b>Change #1 – Screen</b>	Interpretation of screens	Scripts for handing out screens, data entry in EHR	How to support primary care teams doing warm hand-offs
<b>Change #2 – Elicit symptoms</b>	Diagnosing alcohol and/or other drug use disorders	Scripts for handing out questions about symptoms, data entry in EHR	Conducting formal diagnostic assessments for alcohol and/or other drug use disorders and engaging in shared decision-making re: alcohol- and drug-related care
<b>Change #3 – Brief counseling</b>	Brief counseling for patients with positive screens using MI skills	Alerting clinicians to patients for brief counseling (template in EHR, handout clipped to chart, etc.)	Counseling for patients with high positive screens or alcohol or other drug disorders, treating comorbid mental health conditions
<b>Change #4 – Management</b>	Shared decision-making re: Medications:  AUD: Naltrexone vs acamprosate vs disulfiram  OUD: Buprenorphine vs injectable naltrexone vs refer for methadone  Opioid use: Naloxone	Alerting primary care and/or behavioral health clinicians re: high-positive screens or possible alcohol or other drug use disorders	Shared decision-making and treatment options in the community, MI and CBT, supporting engagement in peer support
<b>Change #5 – Follow-up with monitoring</b>	Follow-up monitoring and adapting treatment	Outreach and sending monitoring tools, or inviting patients to schedule follow-up	Monitoring all patients on medications and after short-term (12 week) treatment, managing a registry

## Change #9: Billing and Identifying Revenues for Alcohol and/or Other Drug Care

**Bill for screening, brief counseling, management, and monitoring, and explore other revenue sources to support the cost of provision of alcohol- and/or other drug-related services in primary care.**

<b>Recommendation</b>	<ul style="list-style-type: none"> <li>• If appropriate, use SBI, collaborative care, or care coordination codes to support the spectrum of alcohol- or other drug-related care.</li> <li>• Develop a financial model where revenue fully covers the cost of delivery of alcohol and other drug-related care.</li> </ul>
<b>Metric</b>	<ul style="list-style-type: none"> <li>• Process measure: Estimate costs and revenue per month of alcohol and/or other drug use care (screening, assessments to elicit symptoms, brief counseling, and care management) and calculate revenue/cost ratio.</li> <li>• Process measure: Meet at least twice a year to review costs and revenue for providing alcohol- and other drug-related care.</li> </ul>
<b>Benchmark</b>	<ul style="list-style-type: none"> <li>• 100% (completion) for both process measures</li> <li>• Work towards a financial model where the ratio of revenue/cost is greater than one.</li> </ul>

### Rationale

Billing for alcohol- and/or other drug-related care may help ensure their sustainability.

[SBI codes](#) can be used for screening and brief counseling. These codes can be used by integrated behavioral health clinicians after screening, assessment of symptoms, and a warm hand-off for unhealthy alcohol and/or other drug use, or alcohol and/or other drug use disorders, if counseling lasts 15-30 minutes. Under the Affordable Care Act (ACA), they should not result in patient copays.

In addition, recently approved Medicare codes for collaborative care and care coordination<sup>99</sup> can improve revenues.

Alcohol- and/or other drug-related care may show a [return on investment](#) in primary care settings and may help primary care settings perform better under alternative reimbursement and payment systems.

Alcohol-and/or other drug-related care may improve performance on CMS quality metrics for accountable-care organizations (ACOs) and [Merit-based Incentive Payment System \(MIPS\)](#). The augmented model of care for alcohol and/or other drug use described in this guide qualifies as an innovative practice under [MIPS](#) and may generate shared savings for ACOs and improve cost performance.

[Alcohol and/or other drug-related care is often a billable service](#) — Medicaid, Medicare, and commercial billing codes are available in many states and can support sustainable programs.<sup>100</sup>

### **Making the Business Case for Implementing Care for Alcohol AND Other Drug Use in Medical Settings**

There is a growing evidence base suggesting that improvements in alcohol and/or other drug care are a good business decision. It could make an impact in the healthcare settings' bottom line by addressing alcohol and/or other drug use in a way that could decrease costly services like hospitalizations and readmissions. Systematically screening, counseling, and managing patients with alcohol and/or other drug use problems could help meet challenges in the emerging clinician-based risk models, such as ACOs and value-based payment contracts.<sup>101</sup>

- Screening and brief counseling for alcohol use among adults has been consistently ranked among the top preventive services in terms of cost-effectiveness and health impact—ranking higher than screening for hypertension and cholesterol.<sup>12, 102, 103</sup>
- [Research on cost-benefit](#) of SBIRT programs and savings when SBI is implemented suggest that the practice can make financial sense.<sup>104</sup>

## Change #1 Resources: Screen All Adults at Least Annually

### THE AUDIT-C SCREEN FOR UNHEALTHY ALCOHOL USE

- The first three questions of the World Health Organization's (WHO) 10-item AUDIT, called the AUDIT-C, is used because it yields a helpful score (range 0-12) for assessing alcohol use severity and for monitoring alcohol use over time.
- Recommended thresholds:  $\geq 3$  and  $\geq 4$  points for a positive screen for women and men, respectively, and  $\geq 7$  for high-positive for women and men, are based on numerous validation studies.<sup>3, 26, 105</sup>
- Patients who screen positive with scores below 7 are appropriate for brief preventive counseling ([Change #3](#)).
- Patients with high-positive scores (7-12 points) should have symptoms of alcohol use disorders elicited ([Change #2](#)). They are also appropriate for ongoing (repeated) brief counseling in primary care ([Change #4](#)).

#### Specific advantages of the AUDIT-C:

- Validated and reliable and has been widely implemented in primary care.<sup>106</sup>
- It is in the public domain and has been translated to and validated in many languages.
- Can easily be added to other brief screens or protocols (e.g., cannabis, other drugs, depression and smoking screening, vital signs), and can be administered by staff interview or patient administration (the latter is recommended).
- Yields a score (0-12) that is strongly associated with level of consumption, severity of risk and probability of DSM-5 alcohol use disorders (AUDs).
- Can be used to monitor changes over time in drinking and changes in annual screening scores are associated with changes in objective health outcomes.

### Two Screening Questions for Cannabis and Other Drug Use

The two optional drug screening items (one for cannabis and one for other drugs scored separately) have many of the qualities described above. The cannabis screen is adapted from a validated tool (i.e., the Cannabis Use Disorders Identification Test [CUDIT]<sup>107</sup>) and the screen for other drug use has been adapted from a single item screen.<sup>108</sup> Research indicates that single-question screening tools can identify unhealthy drug use, including cannabis, cocaine, heroin, and hallucinogens, as well as recreational or non-medical use of prescription medications (i.e., without a prescription, more than prescribed or to get high).<sup>25</sup>

## Change #1 Resources: Screen All Adults at Least Annually, CONT.

The Cannabis Use Screen (0-4 points) is included to allow clinicians to assess the frequency of cannabis use separately from other drug use. Such screening allows clinicians to assess and address reasons for use (medical, recreational, or both).

- Screening may be desirable in states that permit legal medical and/or recreational use. As cannabis legalization expands, and the number of cannabis users increases—and daily cannabis users at greatest risk for a cannabis use disorder<sup>109</sup> – increase,<sup>110</sup> clinicians will likely want to know whether their patients are using cannabis regularly.
- Patients who report monthly or weekly cannabis use can be offered brief counseling ([Change #3](#)).
- The authors recommend eliciting symptoms of a cannabis use disorder for patients who report daily use because 25–50 percent of patients who use cannabis daily develop cannabis use disorders ([Change #2](#)).<sup>111, 112</sup>
- For patients who have a cannabis use disorder, ongoing brief counseling ([Change #3](#)), management as appropriate based on shared decision-making ([Change #4](#)) and monitoring ([Change #5](#)) are recommended.

Other Drug Use Screen (0-4 points) is included to identify patients who might benefit from ongoing brief counseling alone or assessment for a drug use disorder. Although most trials of screening and brief preventive counseling for non-alcohol drug use in primary care have found no benefit, awareness of patients' drug use is critical to high quality medical care because it allows assessment of symptoms of other drug use disorders to permit diagnosis and treatment of drug use disorders, as well as awareness of when drug use complicates management of other conditions (e.g., HIV or HCV, depression).

### Selecting a Screening Tool

There are many considerations when choosing a screening tool. The following factors were considered when recommending the AUDIT-C Plus 2 tool. If a practice opts to select a different tool, the authors recommend considering the following.

#### Considerations for Selecting a Screening Tool

- Valid and reliable?
- Brief?
- Free to use?
- Recommended by authorities?
- Available in multiple languages?
- Widely used in the U.S. and Canada?
- Used to identify unhealthy use?
- Used to guide clinical next steps?
- Useful for monitoring change in use patterns?
- A good fit with other screeners?
- Easy to administer?

## Change #2 Resources: Eliciting Symptoms

### **Using symptoms of alcohol and/or other drug use to engage patients.**

Understanding patients' symptoms due to alcohol and/or other drugs opens an opportunity to engage the patient in a conversation about how their alcohol and/or other drug use is impacting their lives and health. This allows the clinician to understand the patient's experience and engage them in care. In short, the information gained from systematically eliciting symptoms will help engage patients in shared decision-making to identify the appropriate next steps.

### **Eliciting symptoms also facilitates diagnosis of alcohol and/or other drug use disorders.**

Extensive research has documented that clinicians often do not recognize alcohol and/or other drug use disorders without systematic screening and assessments. Alcohol and/or other drug use disorders are currently defined based on DSM-5. Two or more symptoms out of 11 total symptoms define an alcohol and/or other drug use disorder. The more symptoms a patient has, the more severe the alcohol and/or other drug use disorder.

The risk of alcohol and/or other drug use disorders is increased by genetics and age of first use, as well as other risk factors, but the repeated exposure of the brain to high levels of alcohol and/or other drugs is a critical risk factor. The probability of developing an alcohol and/or other drug use disorder increases, therefore, as the frequency and intensity of a person's alcohol and/or other drug use increases. As a result, screens that assess the frequency and intensity of alcohol and/or other drug use (like the AUDIT-C Plus 2) are also excellent for identifying patients who deserve systematic assessment for alcohol and/or other drug use disorders.

### MOTIVATIONAL INTERVIEWING (MI) RESOURCES

Motivational Interviewing and [Shared Decision Making](#) are the foundation of brief counseling ([Change #3](#)) and management of alcohol and other drug use in primary care ([Change #4](#)). Motivational Interviewing (MI) and shared decision-making are complementary approaches that can be used together<sup>89</sup> by staff and clinicians who interact with patients. When using these approaches—MI can help motivate change in alcohol and other drug use. Then, shared decision-making can drive decisions on the preferred approach to that change and treatment plans. MI can continue to be helpful as many patients who initiate change continue to have ambivalence.

#### MOTIVATIONAL INTERVIEWING

MI is a collaborative, conversational approach to counseling aimed at strengthening a patient's own motivation and commitment to change, and can be useful for a range of health issues. MI helps patients to identify and resolve ambivalence about changing their alcohol and/or other drug use and involves building a collaborative partnership with patients, eliciting the patient's own motivations for change, and builds on patients' strengths.<sup>113</sup> A recent systematic review showed that clinicians can successfully use MI as part of patient consultations to reduce alcohol and/or other drug use as well as increase exercise and weight loss and lower important health indicators (e.g., HIV viral loads, blood pressure, cholesterol).<sup>114</sup>

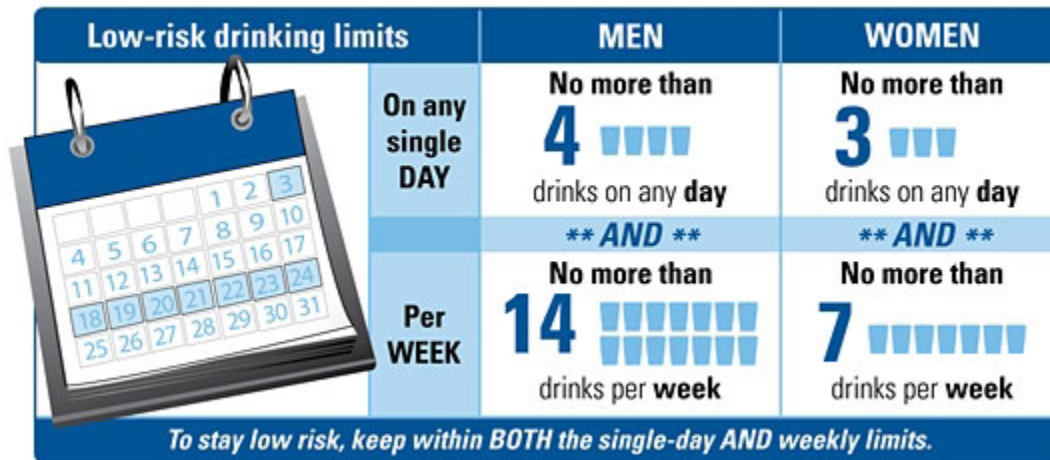
MI skills include open-ended questions, reflective listening, eliciting reasons for change (i.e., "change talk"), and developing discrepancy between the patient's values and current situation. There are four components that capture the spirit of MI (partnership and collaboration, eliciting the patient's reasons for change, acceptance, and compassion/empathy).<sup>115</sup>

For additional information on MI:

- [SAMHSA-HRSA's MI Resources Page](#)
- [SAMHSA's Guide on Enhancing Motivation to Change Substance Use](#)
- [Motivational Interviewing Network of Trainers website](#)
- Book: *Motivational Interviewing: Preparing People for Change*, 3<sup>rd</sup> Edition<sup>113</sup>

## LOW-RISK DRINKING GUIDELINES

Advising patients about these recommended limits is a key element of brief counseling for unhealthy alcohol use. [The National Institute on Alcohol Abuse and Alcoholism \(NIAAA\)](#) recommends:



It is important to note that “low risk” is not “no risk.” Even within these limits, alcohol can cause problems if people drive after drinking, have health problems, or are older (recommended limits for both men and women over 65 are no more than three drinks on any day and 7 per week). Based on patients’ health and how alcohol affects them, they may need to drink less or not at all. The NIAAA recommends avoiding alcohol in the following situations:

- Taking medications that interact with alcohol.
- Managing a medical condition that can be made worse by drinking.
- Underage drinking increases the risk of alcohol use disorders
- Planning to drive a vehicle or operate machinery.
- Pregnant or trying to become pregnant.

### Resources to Help Patients Make Changes in Alcohol or Other Drug Use:

The following resources may be useful for patients interested in making changes to their alcohol and/other drug use. Sometimes, it helps patients to use worksheets and have access to tips for cutting down when they are making changes.

- For patients considering changes to drinking: <https://www.rethinkingdrinking.niaaa.nih.gov/Thinking-about-a-change/Its-up-to-you/Planning-For-Change.aspx> (online or free booklet)
- For patients considering changes to other drug use: <https://www.drugabuse.gov/publications/resource-guide/change-plan-worksheet>



## Change #4 Resources: Management

Table A.1 below briefly describes a number of evidence-based practices for alcohol and/or other drug use disorder. Other helpful online overviews include:

- NIAAA's Clinicians Guide – Helping Patients Who Drink Too Much
- NIDA Principles of Drug Addiction Treatment
- SAMHSA's Guide to Medication and Treatment

**Table A.1 Evidence-Based Practices for Alcohol and/or Other Drug Use Disorders**

Treatment	Brief Description
<b>Cognitive Behavioral Therapy</b>	In cognitive behavioral therapy (CBT), individuals learn to identify and correct problematic behaviors by applying a range of different skills that can be used to help them change alcohol and/or other drug use and address a range of other problems that often co-occur with it.
<b>Motivational Enhancement Therapy</b>	Motivational enhancement therapy (MET) is an approach that uses MI to help individuals resolve their ambivalence about changing their alcohol and/or other drug use. MET aims to evoke internal motivations to change.
<b>12-Step Facilitation</b>	Twelve-step facilitation therapy is an active engagement strategy designed to increase the likelihood of an individual with alcohol and/or other drug use disorders becoming affiliated with and actively involved in 12-step self-help groups, thereby promoting abstinence.
<b>Family Behavior Therapy</b>	Family behavior therapy (FBT) is aimed at addressing alcohol and/or other drug use problems, as well as other co-occurring problems, such as conduct disorders, child mistreatment, depression, family conflict, and unemployment. FBT combines behavioral contracting with contingency management.
<b>Contingency Management</b>	Contingency management involves giving patients tangible rewards to reinforce positive behaviors, such as abstinence.
<b>Community Reinforcement Approach</b>	Community reinforcement approach (CRA) is an intensive 24-week outpatient therapy that uses a range of recreational, familial, social, and vocational reinforcers, along with material incentives, to make a non-drug-using lifestyle more rewarding than alcohol and/or other drug use.
<b>Medication Treatment</b>	<p>Medication can be used with counseling to assist patients in changing their alcohol or other drug use. Medications for opioid use disorders have been shown to: 1) improve patient survival for opioid use disorder, 2) increase retention in treatment, 3) decrease illicit opiate use and other criminal activity, 4) increase patients' ability to gain and maintain employment, and 5) improve birth outcomes among women who have alcohol and/or other drug use disorders and are pregnant. Commonly used medications are:</p> <p><u>Opiate Use Disorder (OUD)</u>: methadone, buprenorphine, injectable naltrexone</p> <p><u>Alcohol Use Disorder (AUD)</u>: naltrexone (oral or injectable), acamprosate, disulfiram</p>

## SELECTING FROM A SPECTRUM OF TREATMENT INTENSITIES

There are different levels of care in which a patient’s alcohol and/or other drug use disorder can be managed, representing different settings and intensities of treatment. As discussed throughout this guide, medications for alcohol and opioid use disorder, as well as short behavioral therapy, can be offered in primary care. Specialty addiction treatment programs are also an option. Treatment should be offered depending on the patient’s needs, psychiatric/medical co-morbidities, risk level, and preference. Primary care clinicians should consider several factors in helping patients select the optimal intensity of treatment: What level of care will meet the patient’s needs? What level of care is the patient willing to go to? What quality programs are available in primary care and/or the community? What will insurance cover? Medications for alcohol or opioid use disorders should be offered to patients as appropriate at any level of care; however, specialty opioid treatment programs are the only ones that can currently legally offer methadone for treating opioid use disorder.

The [American Society of Addiction Medicine](#) has tools and criteria for determining appropriate treatment placement.

**Table A.2 Levels of Care for Treatment of Alcohol or Other Drug Use Disorders**

<b>Primary Care-Based Treatment</b>
Therapy and medication (except methadone) can be offered within primary care, depending on resources, unless the patient prefers to receive care in a specialty treatment program or the needs are too complex to be managed well within primary care.
<b>Outpatient Treatment</b>
Patients typically meet with a therapist or counselor weekly for a period dependent on progress and the treatment plan. This level of treatment is most appropriate for people who are not using alcohol and/or other drugs in ways that put them at imminent risk (e.g., drinking and driving), who have relatively stable living situations, and who do not have serious psychiatric or medical co-morbidities that warrant 24-hour medical oversight. Individual, group, and family therapy are typically offered.
<b>Intensive Outpatient Treatment</b>
Intensive outpatient treatment is for patients in need of more support than outpatient treatment, and typically includes at least nine hours of individual, group or family therapy per week. Patients can often attend in the evening or weekends, but live at home. Similar to outpatient treatment, this is most appropriate for people who are not using alcohol and/or other drugs in ways that put them at imminent risk, who have relatively stable living situations, and who do not have serious psychiatric or medical co-morbidities that warrant 24-hour medical oversight.
<b>Opioid Treatment Programs</b>
Opioid treatment programs are the only available level of care where methadone for opioid use disorders (OUDs) is available. These programs are certified by SAMHSA to provide supervised assessment and medication treatment and supportive counseling to people with OUD. Many programs are now expanding beyond methadone to other appropriate medications for OUD.
<b>Residential/Inpatient Treatment</b>
This is an intensive level of care for patients who have not only severe addiction, but also have complex psychiatric, family, social, or medical problems that would interfere with treatment and the ability to recover. Residential/inpatient treatment includes programs that provide treatment in a residential setting and typically includes medical oversight for co-occurring conditions.
<b>Residential/Inpatient Treatment</b>
This is the highest level of treatment and is most appropriate for patients whose alcohol and/or other drug use, medical, and psychiatric problems are so severe that they require 24-hour medical care.

### SUCCESSFUL REFERRAL TO TREATMENT FOR ALCOHOL OR OTHER DRUG USE DISORDERS

Both literature and real world experience have demonstrated that referral from primary care settings to behavioral health services is often not successful. Barriers arise even when the patient agrees to engage in a higher level of care (e.g., insurance, admission procedures, etc.). To optimize the success of referral for those in need of specialty treatment, primary care clinics should have a standardized protocol and materials ready for referrals to care, internal or external.

#### Internal Specialty Treatment

With an increase in integration of behavioral health services into primary healthcare settings, many primary care clinics have embedded behavioral health clinicians trained in specialty addiction treatment. In such instances, a “warm hand-off” or internal referral for diagnostic assessment and acute treatment can be made directly from the primary care clinician to the embedded behavioral health clinician. Internal referrals may benefit from the familiar, trusted, non-stigmatized setting and potentially fewer logistical barriers compared to external treatment programs.

#### External Specialty Treatment

Primary care clinics without internal behavioral health clinicians will need to identify and partner with external treatment programs. Clinic personnel who will be making referrals, should at minimum, understand or have access to information about the services offered by each treatment program, the basic criteria for attendance (age, gender, severity, insurance), and the program’s process for referrals and intakes. Ideally, a designated contact/intake person for the treatment program will have been identified. Considerations regarding confidentiality, the exchange of information, and establishing follow-up protocols should be explored, with the aim of developing effective policies and procedures.

#### Specialty Treatment Referral Workflow Development

Internal and external referral processes benefit from a written workflow including the development of a policy and procedure. The workflow should specify the following:

1. How referrals can be made and scheduled (warm hand-off, phone call, scheduler, fax, email, EHR communication, required prior tests such as urine drug screens, etc.).
2. Expected timeliness of appointments (emergency, urgent, routine).
3. Expected engagement responsibilities and accountability (if patient no-shows, who does follow up; if patient shows once but does not return, who gets notified, etc.?).
4. How information is shared (verbal and/or written consent, minimum treatment information to be shared by all parties, frequency of routine communication).
5. Expected frequency of workflow/policies and procedures review (quarterly with new workflows, annually or biannually with established workflows).

#### Shared Decision-Making Resources

There are many good shared decision-making resources available, including the tool for opioid treatment.

For additional information:

[SAMHSA Shared Decision-Making Resources](#)

[SAMHSA BRSS TACS Opioid Treatment Shared Decision-Making Tools](#)

## Change #5 Resources: Monitoring

Using a registry can be helpful for monitoring patients: [AIMS Center at the University of Washington](#) provides resources on creating a registry, as well as a registry example.

Recommended monitoring tools: AUDIT-C Plus 2 and additional questions about patient goals and symptoms due to alcohol and/or other drug use.

### Alcohol and Substance Use Screening Questionnaire

Patient Label

Once a year, we ask all our patients to complete this form on conditions that affect their health. Please help us provide you with the best medical care by answering the questions below.

Please **circle the best response** to each question.

#### In the past 3 months...

1. How often did you have a drink containing alcohol?	Never 0	Monthly or less 1	2-4 times a month 2	2-3 times a week 3	4+ times a week 4	
2. How many drinks containing alcohol did you have on a typical day when you were drinking?	Never 0	1 or 2 drinks 0	3 or 4 drinks 1	5 or 6 drinks 2	7, 8 or 9 drinks 3	10 or more drinks 4
3. How often did you have 5 or more drinks on one occasion?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4	
4. How often have you used marijuana?	Never 0	Not monthly 1	Monthly 2	Weekly 3	Daily or almost 4	
5. How often have you used an illegal drug or a prescription medication for non-medical reasons*?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4	

\* if patient needs further explanation, "for example, for the feeling or experience it caused."

[Click to Access a PDF of the AUDIT-C Plus 2](#)

## Change #5 Resources: Monitoring, CONT.

### Short Alcohol Monitor (SAM)

These questions are to help you and your medical team monitor how your drinking may be affecting you.  
Circle one best answer for each question.

How often in the past 2 weeks...	0	1	2	3	4
1. Were you bothered by how your drinking impacted your health, relationships, goals or life?	Never	Rarely	Sometimes	Often	Almost always
2. Did you have trouble controlling your drinking, drink too much or spend too much time drinking?	Never	Rarely	Sometimes	Often	Almost always
3. Was it difficult to get the thought of drinking out of your mind?	Never	Rarely	Sometimes	Often	Almost always
4. Did you disappoint yourself or others due to drinking?	Never	Rarely	Sometimes	Often	Almost always
5. Have you had trouble getting things done due to drinking?	Never	Rarely	Sometimes	Often	Almost always

### Short Drug Use Monitor (SDUM)

These questions are to help you and your medical team monitor how your drug use may be affecting you.  
Circle one best answer for each question.

How often in the past 2 weeks...	0	1	2	3	4
1. Were you bothered by how your drug use impacted your health, relationships, goals or life?	Never	Rarely	Sometimes	Often	Almost always
2. Did you spend a lot of time using drugs?	Never	Rarely	Sometimes	Often	Almost always
3. Were drugs the only thing you could think about?	Never	Rarely	Sometimes	Often	Almost always
4. Did you disappoint yourself or others due to drug use?	Never	Rarely	Sometimes	Often	Almost always
5. Did you feel your drug use was out of control?	Never	Rarely	Sometimes	Often	Almost always

[Click to Access a PDF of the SAM and SDUM](#)

### TRAINING OPPORTUNITIES

[IRETA Training and Technical Assistance](#)

[Relias - SBIRT: Intervention and Treatment Services for Individuals with Substance Use Issues](#)

[ATTC National Registry of SBIRT Trainers](#)

[National Council Consulting Service](#)

Find more training opportunities at the [SAMHSA HRSA Center for Integrated Health Solutions](#)

### ALTERNATIVE PAYMENT PROGRAMS: THE CMS MIPS PROGRAM

#### CMS Quality Payment Program

The Centers for Medicare and Medicaid Services (CMS) launched the new Quality Payment Program on January 1, 2017. This program only applies to certain clinicians who bill Medicare Part B using the physician fee schedule. The vast majority of eligible clinicians in 2017 will participate through the Merit-based Incentive Payment System (MIPS). Individual clinicians and clinician groups are scored in several MIPS performance categories, including Quality (60 percent of the total score) and Improvement Activities (15 percent of the total score). The higher the score, the more likely the clinician or clinician group is to receive a positive payment adjustment.

#### MIPS Quality measures include:

**Preventive care and screening:** Unhealthy alcohol use—Percentage of patients aged 18 years and older who were screened for unhealthy alcohol use using a systematic screening method at least once within the last 24 months AND who received brief counseling if identified as an unhealthy alcohol user.

#### MIPS Improvement Activities include:

**Unhealthy alcohol use:** Regular engagement of MIPS eligible clinicians or groups in integrated prevention and treatment interventions, including screening and brief counseling (refer to NQF #2152) for patients with co-occurring behavioral or mental health conditions.

See the [Quality Payment Program website](#) for more information.

### SBIRT BILLING CODES

The American Medical Association (AMA) has approved several billing codes that will allow practices to be reimbursed for providing screening and brief intervention services. Medical procedures are coded using Common Procedure and Terminology (CPT) and Healthcare Common Procedure Coding System (HCPCS) codes. Screening and brief intervention may be provided in an office, emergency department, or inpatient visit for both new and established patients. Payers often use AMA's Evaluation and Management (E&M) CPT codes to pay physicians' services. Many payers reimburse for independent licensed health practitioners, such as advance practice nurses, psychologists, and Masters-level social workers. A few will pay for service provided by health professionals under the supervision of a physician.

**Table A.2 SBI Billing Codes**

Payer	Code	Description
Commercial Insurance, Medicaid	99408	Alcohol and/or drug use structured screening and brief intervention services; 15 to 30 minutes
Commercial Insurance, Medicaid	99409	Alcohol and/or drug use structured screening and brief intervention services; greater than 30 minutes
Medicare	G0396	Alcohol and/or drug use structured screening and brief intervention services; 15 to 30 minutes
Medicare	G0397	Alcohol and/or drug use structured screening and brief intervention services; greater than 30 minutes
Medicare	G0442	Prevention: Screening for alcohol misuse in adults including pregnant women once per year. No coinsurance; no deductible for patient <a href="http://www.cms.gov/medicare-coverage-database/details/nca-decision-memo.aspx">www.cms.gov/medicare-coverage-database/details/nca-decision-memo.aspx</a>
Medicare	G0443	Prevention: Up to four, 15-minute, brief face-to-face behavioral counseling interventions per year for individuals, including pregnant women, who screen positive for unhealthy alcohol use; No coinsurance; no deductible for patient <a href="http://www.cms.hhs.gov/medicare-coverage-database/details/nca-decision-memo.aspx?NCAId=249">http://www.cms.hhs.gov/medicare-coverage-database/details/nca-decision-memo.aspx?NCAId=249</a>
Medicaid	H0049	Alcohol and/or other drug screening (code not widely used)
Medicaid	H0049	Alcohol and/or other drug service, brief intervention, per 15 minutes (code not widely used)

\*Several CPT codes can be used. The information in the table above shows the most commonly used codes.

\*\*See [Reimbursement for SBIRT](#) for more information.



### SBIRT ICD-10 CODES

When a diagnosis code is needed, ICD-10 codes in the F10 to F19 section for mental and behavioral disorders due to alcohol and/or other drug use are used, for example:

**Table A.3 ICD Codes for Alcohol and/or Other Drug Use**

F10.	Mental and behavioral disorders due to use of alcohol
F11.	Mental and behavioral disorders due to use of opioids
F12.	Mental and behavioral disorders due to use of cannabinoids
F13.	Mental and behavioral disorders due to use of sedative hypnotics
F14.	Mental and behavioral disorders due to use of cocaine
F15.	Mental and behavioral disorders due to use of other stimulants, including caffeine
F16.	Mental and behavioral disorders due to use of hallucinogens
F17.	Mental and behavioral disorders due to use of tobacco
F18.	Mental and behavioral disorders due to use of volatile solvents
F19.	Mental and behavioral disorders due to multiple drug use and use of other psychoactive substances

For more information, see [WHO's ICD-10 Classification of Mental and Behavioral Disorders: Clinical descriptions and diagnostic guidelines](#).

## RETURN ON INVESTMENT

SBIRT might generate shared savings (e.g., Accountable Care Organizations) and improve cost performance under MIPS. The following table describes three SBIRT studies and the modeling of the savings that might have resulted from each program.

**Table A.4 SBIRT Cost Savings**

	<b>Fleming et al., 2000<sup>116, 117</sup></b>	<b>Estee et al., 2000<sup>118</sup></b>	<b>Paltzer et al., 2016<sup>119</sup></b>
<b>Alcohol and/or Other Drugs:</b>	Alcohol	Alcohol and drugs	Alcohol and drugs
<b>Setting:</b>	Primary care	Emergency departments	Primary care
<b>Patients:</b>	All adults	Disabled adults with Medicaid	All adults
<b>Intervention staff:</b>	Physicians and nurses	Chemical dependency counselors	Two-thirds paraprofessionals*, one-third Masters-level counselors and social workers
<b>Investment:</b>	\$205	\$15	\$48 (1 year), \$96 (2 years)
<b>Savings &amp; timeframe:</b>	\$523 (1 year)	\$4,392 (1 year)	\$439 (1 year), \$878 (2 years)
<b>Net savings &amp; timeframe:</b>	\$318 (1 year)	\$4,377 (1 year)	\$391 (1 year), \$782 (2 years)
<b>Return on investment</b>	1.6	292	8.1

\* Paraprofessionals elicited greater reductions in alcohol consumption than master's-level staff

# The Current State of SBIRT in Practice and Research

Over the past 15 to 20 years, SAMHSA as well as other organizations have encouraged healthcare settings, such as emergency departments and primary care practices, to implement Screening, Brief interventions, and Referral to Treatment (SBIRT) to better address alcohol and/or other drug use in mainstream medical care. There have also been many practice-based studies and research on the effectiveness of SBIRT for alcohol and other drugs, as well as on barriers and facilitators to implementation of SBIRT.

## Practice

Since 2003, SAMHSA has funded states, academic medical programs, and college campuses to implement SBIRT services and training programs which has led to states and organizations across the country to implement improved alcohol and/or other drug-related care in medical settings. There are now vast resources and examples for training, implementation, evaluation, fidelity monitoring, EHR programming, screening tools, brief intervention models, and computerized SBIRT programs and applications. While there are documented benefits to implementing SBIRT<sup>103, 117</sup>, there are also a variety of barriers that have kept the practice from becoming part of regular care in medical settings in the United States, including factors at the national, system, organization, and individual (patient, clinician, and staff) levels.<sup>120, 121</sup> A major challenge has been sustaining ongoing improvements in care when funding from SAMHSA ended.

## Research

The most robust evidence for screening and brief intervention (SBI) is in primary care practices for alcohol; there is good evidence that patients report reducing their drinking after receiving brief intervention in primary care.<sup>2</sup> However, there are three main areas in the SBIRT research literature that highlight the limitations of the model:

- Emergency departments have shown mixed evidence for efficacy of SBIRT.<sup>122</sup>
- There is a lack of efficacy for SBI for non-alcohol drug use in primary care practices.<sup>123</sup>
- Inconsistent success of referrals to treatment, and ineffective engagement in specialty treatment for alcohol and/or other drug use disorders as a result of referral as part of SBIRT.<sup>124, 125</sup>

USPSTF currently recommends alcohol screening and counseling for adult primary care patients (Category B). The USPSTF does not currently recommend screening and brief intervention for other drugs, given the lack of evidence (their recommendations will be updated again in 2017). This mixed evidence for SBIRT has led experts to question whether screening and brief intervention should be implemented for other drugs in emergency departments; it has also posed a challenge to the field regarding how to move forward in implementing care for alcohol and/or other drugs in healthcare settings.<sup>122, 126</sup>

### Why an Extension and Update of the SBIRT Model?

SBIRT has been an important step in highlighting and potentially improving the care of patients with alcohol and/or other drug use problems in medical settings. As the primary care environment continues to evolve to better achieve primary and behavioral healthcare integration and in light the current state of research, the SBIRT model must be updated. There are exceptional opportunities in primary care given healthcare reforms that are making integrated care in primary care settings more common and achievable. These opportunities to extend the model include integration of evidence-based medications for alcohol and opioid use disorders, payment and reimbursement models (e.g., care coordination billing codes, and value based payment), newer practice models (e.g., patient-centered medical homes, collaborative care), and ability to align with the best evidence-based practices for alcohol and/or other drug use care in primary care settings. Despite the lack of evidence for the full SBIRT model as we know it today for other drug use, there is still a need to address drug use in healthcare settings because of the benefit of treating drug use disorders.

The major expansions and updates to the SBIRT model that are proposed in this guide include monitoring and management of patients with alcohol and/or other drug use problems within the primary care practice, rather than solely relying on referrals to specialty treatment providers, as has been historically done. This expanded model builds on the successful management of depression and anxiety in primary care, using collaborative care principles and measurement-based care, and moves the field toward more comprehensive care of people with harmful use of alcohol and/or other drugs within primary care. Most importantly, it prepares primary care clinicians to integrate care for alcohol and/or other drug into routine care in a manner consistent with the patient-centered medical home (PCMH) and value-based incentives to improve clinical outcomes.

## References

1. Watkins, K. E., Ober, A. J., Lamp, K., Lind, M., Setodji, C., Osilla, K. C., . . . Pincus, H. A. (2017). Collaborative Care for Opioid and Alcohol Use Disorders in Primary Care: The SUMMIT Randomized Clinical Trial. *JAMA Intern Med*. doi:10.1001/jamainternmed.2017.3947
2. Babor, T. F., Del Boca, F., & Bray, J. W. (2017). Screening, Brief Intervention and Referral to Treatment: implications of SAMHSA's SBIRT initiative for substance abuse policy and practice. *Addiction*, 112 Suppl 2, 110-117. doi:10.1111/add.13675
3. Johnson, J. A., Lee, A., Vinson, D., & Seale, J. P. (2013). Use of AUDIT-based measures to identify unhealthy alcohol use and alcohol dependence in primary care: a validation study. *Alcohol Clin Exp Res*, 37 Suppl 1, E253-259. doi:10.1111/j.1530-0277.2012.01898.x
4. Jonas, D. E., Garbutt, J. C., Amick, H. R., Brown, J. M., Brownley, K. A., Council, C. L., . . . Richmond, E. M. (2012). Behavioral counseling after screening for alcohol misuse in primary care: a systematic review and meta-analysis for the U.S. Preventive Services Task Force. *Ann Intern Med*, 157. doi:10.7326/0003-4819-157-9-201211060-00544
5. Moyer, V. A., & Preventive Services Task Force. (2013). Screening and behavioral counseling interventions in primary care to reduce alcohol misuse: U.S. preventive services task force recommendation statement. *Ann Intern Med*, 159(3), 210-218. doi:10.7326/0003-4819-159-3-201308060-00652
6. Bradley, K. A., & Kivlahan, D. R. (2014). Bringing patient-centered care to patients with alcohol use disorders. *JAMA*, 311(18), 1861-1862. doi:10.1001/jama.2014.3629
7. Rose, H. L. (2008). Alcohol screening and brief counseling in a primary care hypertensive population: a quality improvement intervention. *Addiction (Abingdon, England)*, 103(8), 1271-1280. doi:10.1111/j.1360-0443.2008.02199.x
8. Williams, E. C., Rubinsky, A. D., Chavez, L. J., Lapham, G. T., Rittmueller, S. E., Achtmeyer, C. E., & Bradley, K. A. (2014). An early evaluation of implementation of brief intervention for unhealthy alcohol use in the US Veterans Health Administration. *Addiction*, 109(9), 1472-1481. doi:10.1111/add.12600
9. SAMHSA. (2016). Key substance use and mental health indicators in the United States: Results from the 2015 National Survey on Drug Use and Health. Retrieved from <http://www.samhsa.gov/data/>
10. Wu, L. T., McNeely, J., Subramaniam, G. A., Brady, K. T., Sharma, G., VanVeldhuisen, P., . . . Schwartz, R. P. (2017). DSM-5 substance use disorders among adult primary care patients: Results from a multisite study. *Drug Alcohol Depend*, 179, 42-46. doi:10.1016/j.drugalcdep.2017.05.048
11. Saitz, R. (2005). Clinical practice. Unhealthy alcohol use. *N Engl J Med*, 352(6), 596-607. doi:10.1056/NEJMcp042262
12. Solberg, L. I., Maciosek, M. V., & Edwards, N. M. (2008). Primary care intervention to reduce alcohol misuse ranking its health impact and cost effectiveness. *Am J Prev Med*, 34(2), 143-152.
13. Saitz, R., Horton, N. J., & Samet, J. H. (2003). Alcohol and medication interactions in primary care patients: common and unrecognized. *Am J Med*, 114(5), 407-410.
14. Bryson, C. L., Au, D. H., Sun, H., Williams, E. C., Kivlahan, D. R., & Bradley, K. A. (2008). Alcohol screening scores and medication nonadherence. *Ann Intern Med*, 149(11), 795-804.
15. Chi, F. W., Weisner, C. M., Mertens, J. R., Ross, T. B., & Sterling, S. A. (2017). Alcohol brief intervention in primary care: Blood pressure outcomes in hypertensive patients. *J Subst Abuse Treat*, 77, 45-51. doi:10.1016/j.jsat.2017.03.009
16. Ahmed, A. T., Karter, A. J., & Liu, J. (2006). Alcohol consumption is inversely associated with adherence to diabetes self-care behaviours. *Diabet Med*, 23(7), 795-802.
17. Hellard, M., Sacks-Davis, R., & Gold, J. (2009). Hepatitis C Treatment for Injection Drug Users: A Review of the Available Evidence. *Clinical Infectious Diseases*, 49(4), 561-573. doi:10.1086/600304
18. Pessione, F., Degos, F., Marcellin, P., Duchatelle, V., Njapoum, C., Martinot-Peignoux, M., . . . Rueff, B. (1998). Effect of alcohol consumption on serum hepatitis C virus RNA and histological lesions in chronic hepatitis C. *Hepatology*, 27(6), 1717-1722. doi:10.1002/hep.510270635
19. Miller, P. M., Thomas, S. E., & Mallin, R. (2006). Patient attitudes towards self-report and biomarker alcohol screening by primary care physicians. *Alcohol Alcohol*, 41(3), 306-310. doi:10.1093/alcalc/agl022
20. Simonetti, J. A., Lapham, G. T., & Williams, E. C. (2015). Association Between Receipt of Brief Alcohol Intervention and Quality of Care among Veteran Outpatients with Unhealthy Alcohol Use. *J Gen Intern Med*, 30(8), 1097-1104. doi:10.1007/s11606-015-3218-5

## References, CONT.

21. Smith, P. C., Schmidt, S. M., Allensworth-Davies, D., & Saitz, R. (2010). A single-question screening test for drug use in primary care. *Arch Intern Med*, 170(13), 1155-1160. doi:10.1001/archinternmed.2010.140
22. Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001). AUDIT: The Alcohol Use Disorders Identification Test: Guidelines for Use in Primary Care, 2nd Edition. Retrieved from <http://www.dass.stir.ac.uk/DRUGS/pdf/audit.pdf>
23. Tiet, Q. Q., Leyva, Y. E., Moos, R. H., Frayne, S. M., Osterberg, L., & Smith, B. (2015). Screen of Drug Use: Diagnostic Accuracy of a New Brief Tool for Primary Care. *JAMA Intern Med*, 175(8), 1371-1377. doi:10.1001/jamainternmed.2015.2438
24. McNeely, J., Wu, L. T., Subramaniam, G., Sharma, G., Cathers, L. A., Svikis, D., . . . Schwartz, R. P. (2016). Performance of the Tobacco, Alcohol, Prescription Medication, and Other Substance Use (TAPS) Tool for Substance Use Screening in Primary Care Patients. *Ann Intern Med*, 165(10), 690-699. doi:10.7326/M16-0317
25. McNeely, J., Cleland, C. M., Strauss, S. M., Palamar, J. J., Rotrosen, J., & Saitz, R. (2015). Validation of Self-Administered Single-Item Screening Questions (SISQs) for Unhealthy Alcohol and Drug Use in Primary Care Patients. *J Gen Intern Med*, 30(12), 1757-1764. doi:10.1007/s11606-015-3391-6
26. Bush, K., Kivlahan, D. R., McDonell, M. B., Fihn, S. D., & Bradley, K. A. (1998). The AUDIT alcohol consumption questions (AUDIT-C): an effective brief screening test for problem drinking. Ambulatory Care Quality Improvement Project (ACQUIP). Alcohol Use Disorders Identification Test. *Arch Intern Med*, 158(16), 1789-1795.
27. National Institute on Alcohol Abuse and Alcoholism. (2005). Helping Patients Who Drink Too Much: A Clinician's Guide (Updated 2005 Edition) (NIH Publication 07-3769). Retrieved from Washington, D.C.: <http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/guide.pdf>
28. Fischer, B., Russell, C., Sabioni, P., van den Brink, W., Le Foll, B., Hall, W., . . . Room, R. (2017). Lower-Risk Cannabis Use Guidelines: A Comprehensive Update of Evidence and Recommendations. *Am J Public Health*, 107(8), 1277. doi:10.2105/AJPH.2017.303818a
29. Rehm, J., Dawson, D., Frick, U., Gmel, G., Roerecke, M., Shield, K. D., & Grant, B. (2014). Burden of disease associated with alcohol use disorders in the United States. *Alcohol Clin Exp Res*, 38(4), 1068-1077. doi:10.1111/acer.12331
30. Rubinsky, A. D., Dawson, D. A., Williams, E. C., Kivlahan, D. R., & Bradley, K. A. (2013). AUDIT-C scores as a scaled marker of mean daily drinking, alcohol use disorder severity, and probability of alcohol dependence in a U.S. general population sample of drinkers. *Alcohol Clin Exp Res*, 37(8), 1380-1390. doi:10.1111/acer.12092
31. Rubinsky, A. D., Kivlahan, D. R., Volk, R. J., Maynard, C., & Bradley, K. A. (2010). Estimating risk of alcohol dependence using alcohol screening scores. *Drug Alcohol Depend*, 108(1-2), 29-36. doi:10.1016/j.drugalcdep.2009.11.009
32. Reynolds, C. F., 3rd, & Frank, E. (2016). US Preventive Services Task Force Recommendation Statement on Screening for Depression in Adults: Not Good Enough. *JAMA Psychiatry*, 73(3), 189-190. doi:10.1001/jamapsychiatry.2015.3281
33. Bradley, K. A., Rubinsky, A. D., Sun, H., Bryson, C. L., Bishop, M. J., Blough, D. K., . . . Kivlahan, D. R. (2011). Alcohol screening and risk of postoperative complications in male VA patients undergoing major non-cardiac surgery. *J Gen Intern Med*, 26(2), 162-169. doi:10.1007/s11606-010-1475-x
34. Bradley, K., Rubinsky, A., Lapham, G., & al, e. (2016). Predictive validity of clinical AUDIT-C alcohol screening scores and changes in scores for three objective alcohol-related outcomes in a Veterans Affairs population. *Addiction*, 111(11), 1975-1984.
35. Saha, T. D., Chou, S. P., & Grant, B. F. (2006). Toward an alcohol use disorder continuum using item response theory: results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Psychol Med*, 36(7), 931-941. doi:
36. Hasin, D. S., O'Brien, C. P., Auriacombe, M., Borges, G., Bucholz, K., Budney, A., . . . Grant, B. F. (2013). DSM-5 criteria for substance use disorders: recommendations and rationale. *Am J Psychiatry*, 170(8), 834-851. doi:10.1176/appi.ajp.2013.12060782
37. American Psychiatric Association. (2013). Diagnostic and Statistical Manual of Mental Disorders, 5th Edition. Washington D.C.: American Psychiatric Association.
38. Dawson, D. A., & Grant, B. F. (2010). Should symptom frequency be factored into scalar measures of alcohol use disorder severity? *Addiction*, 105(9), 1568-1579. doi:10.1111/j.1360-0443.2010.02994.x
39. Dawson, D. A., Saha, T. D., & Grant, B. F. (2010). A multidimensional assessment of the validity and utility of alcohol use disorder severity as determined by item response theory models. *Drug and Alcohol Dependence*, 107(1), 31-38. doi:S0376-8716(09)00353-6 [pii] 10.1016/j.drugalcdep.2009.08.019

## References, CONT.

40. Williams, E. C., Kivlahan, D. R., Saitz, R., Merrill, J. O., Achtmeyer, C. E., McCormick, K. A., & Bradley, K. A. (2006). Readiness to change in primary care patients who screened positive for alcohol misuse. *Ann Fam Med*, 4(3), 213-220. doi:10.1370/afm.542
41. Au, D. H., Kivlahan, D. R., Bryson, C. L., Blough, D., & Bradley, K. A. (2007). Alcohol screening scores and risk of hospitalizations for GI conditions in men. *Alcohol Clin Exp Res*, 31(3), 443-451. doi:10.1111/j.1530-0277.2006.00325.x
42. Berger, D., Williams, E. C., Bryson, C. L., Rubinsky, A. D., & Bradley, K. A. (2013). Alcohol questionnaires and HDL: screening scores as scaled markers of alcohol consumption. *Alcohol*, 47(6), 439-445. doi:10.1016/j.alcohol.2013.07.001
43. Chavez LJ, Liu CF, Tefft N, Hebert P, Clark B, Rubinsky AD, . . . Bradley KA. (2015). Unhealthy alcohol use in older adults: Association with 30-day readmissions and emergency department use in the 30 days after hospital discharge. *Drug and Alcohol Dependence*(in press).
44. Chew, L. D., Nelson, K. M., Young, B. A., & Bradley, K. A. (2005). Association between alcohol consumption and diabetes preventive practices. *Fam Med*, 37(8), 589-594.
45. Harris, A. H., Bradley, K. A., Bowe, T., Henderson, P., & Moos, R. (2010). Associations between AUDIT-C and mortality vary by age and sex. *Popul Health Manag*, 13(5), 263-268. doi:10.1089/pop.2009.0060
46. Harris, A. H., Bryson, C. L., Sun, H., Blough, D., & Bradley, K. A. (2009). Alcohol screening scores predict risk of subsequent fractures. *Subst Use Misuse*, 44(8), 1055-1069. doi:10.1080/10826080802485972
47. Harris, A. H., Lembke, A., Henderson, P., Gupta, S., Moos, R., & Bradley, K. A. (2012). Risk of future trauma based on alcohol screening scores: a two-year prospective cohort study among US veterans. *Addict Sci Clin Pract*, 7, 6. doi:10.1186/1940-0640-7-6
48. Kinder, L. S., Bryson, C. L., Sun, H., Williams, E. C., & Bradley, K. A. (2009). Alcohol screening scores and all-cause mortality in male Veterans Affairs patients. *J Stud Alcohol Drugs*, 70(2), 253-260.
49. Lembke, A., Bradley, K. A., Henderson, P., Moos, R., & Harris, A. H. (2011). Alcohol screening scores and the risk of new-onset gastrointestinal illness or related hospitalization. *J Gen Intern Med*, 26(7), 777-782. doi:10.1007/s11606-011-1688-7
50. Peytremann-Bridevaux, I., Bryson, C. L., Au, D. H., McDonell, M. B., Fihn, S. D., & Bradley, K. A. (2004). The association between AUDIT-C and health status. Paper presented at the Society for General Internal Medicine, Chicago, IL.
51. Rubinsky, A. D., Bishop, M. J., Maynard, C., Henderson, W. G., Hawn, M. T., Harris, A. H. S., . . . Bradley, K. A. (To be submitted). Postoperative risks associated with alcohol screening depend on documented drinking at the time of surgery.
52. Williams EC, Bryson CL, Sun H, Chew RB, Chew LD, Blough DK, . . . Bradley KA. (2012). Association between alcohol screening results and hospitalizations for trauma in Veterans Affairs outpatients. *Am J Drug Alcohol Abuse*, 38(1), 73-80.
53. Roth, J. A., Bradley, K., Thummel, K. E., Veenstra, D. L., & Boudreau, D. (2015). Alcohol misuse, genetics, and major bleeding among warfarin therapy patients in a community setting. *Pharmacoepidemiol Drug Saf*, 24(6), 619-627. doi:10.1002/pds.3769
54. Peterson, K. (2004/2005). Biomarkers for Alcohol Use and Abuse. *Alcohol Research and Health*, 28.
55. Bradley, K. A., Ludman, E. J., Chavez, L. J., Bobb, J. F., Ruedebusch, S. J., Achtmeyer, C. E., . . . Kivlahan, D. R. (2017). Patient-centered primary care for adults at high risk for AUDs: the Choosing Healthier Drinking Options In primary CarE (CHOICE) trial. *Addiction Science & Clinical Practice*, 12(1), 15. doi:10.1186/s13722-017-0080-2
56. Whitlock, E. P., Polen, M. R., Green, C. A., Orleans, T., & Klein, J. (2004). Behavioral counseling interventions in primary care to reduce risky/harmful alcohol use by adults: a summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med*, 140(7), 557-568.
57. Latimer, N., Guillaume, L., Goyder, E., Chilcott, J., & Payne, N. (2009). Alcohol Use Disorders - Preventing Harmful Drinking. Screening and Brief Interventions: Cost Effectiveness Review. Retrieved from [http://www.shf.ac.uk/polopoly\\_fs/1.43294!/file/Alcohol-2\\_3.pdf](http://www.shf.ac.uk/polopoly_fs/1.43294!/file/Alcohol-2_3.pdf)
58. Gelberg, L., Andersen, R. M., Afifi, A. A., Leake, B. D., Arangua, L., Vahidi, M., . . . Baumeister, S. E. (2015). Project QUIT (Quit Using Drugs Intervention Trial): a randomized controlled trial of a primary care-based multi-component brief intervention to reduce risky drug use. *Addiction*, 110(11), 1777-1790. doi:10.1111/add.12993
59. Jonas, D. E., Amick, H. R., Feltner, C., Bobashev, G., Thomas, K., Wines, R., . . . Garbutt, J. C. (2014). Pharmacotherapy for adults with alcohol use disorders in outpatient settings: a systematic review and meta-analysis. *JAMA*, 311(18), 1889-1900. doi:10.1001/jama.2014.3628

## References, CONT.

60. Carroll, K. M. (2012). Dissemination of evidence-based practices: how far we've come, and how much further we've got to go. *Addiction*, 107(6), 1031-1033. doi:10.1111/j.1360-0443.2011.03755.x
61. McCrady, B. S. (2013). Health-care reform provides an opportunity for evidence-based alcohol treatment in the USA: the National Institute for Health and Clinical Excellence (NICE) guideline as a model. *Addiction*, 108(2), 231-232. doi:10.1111/j.1360-0443.2012.04052.x
62. Kelly, J. F., Stout, R. L., Magill, M., & Tonigan, J. S. (2011). The role of Alcoholics Anonymous in mobilizing adaptive social network changes: a prospective lagged mediational analysis. *Drug Alcohol Depend*, 114(2-3), 119-126. doi:10.1016/j.drugalcdep.2010.09.009
63. Beck, A. K., Forbes, E., Baker, A. L., Kelly, P. J., Deane, F. P., Shakeshaft, A., . . . Kelly, J. F. (2017). Systematic review of SMART Recovery: Outcomes, process variables, and implications for research. *Psychol Addict Behav*, 31(1), 1-20. doi:10.1037/adb0000237
64. Watkins, K., Pincus, H. A., Tanielian, T. L., & Lloyd, J. (2003). Using the chronic care model to improve treatment of alcohol use disorders in primary care settings. *J Stud Alcohol*, 64(2), 209-218.
65. Institute of Medicine. (2006). *Improving the Quality of Health Care for Mental and Substance-Use Conditions: Quality Chasm Series*. Washington, DC: National Academies Press.
66. Cohen, E., Feinn, R., Arias, A., & Kranzler, H. R. (2007). Alcohol treatment utilization: findings from the National Epidemiologic Survey on Alcohol and Related Conditions. *Drug Alcohol Depend*, 86(2-3), 214-221. doi:S0376-8716(06)00229-8 [pii] 10.1016/j.drugalcdep.2006.06.008
67. Glass, J. E., Hamilton, A. M., Powell, B. J., Perron, B. E., Brown, R. T., & Ilgen, M. A. (2015). Specialty substance use disorder services following brief alcohol intervention: a meta-analysis of randomized controlled trials. *Addiction*, 110(9), 1404-1415. doi:10.1111/add.12950
68. Willenbring, M. L., & Olson, D. H. (1999). A randomized trial of integrated outpatient treatment for medically ill alcoholic men. *Arch Intern Med*, 159(16), 1946-1952.
69. Willenbring, M. L., Olson, D. H., & Bielinski, J. (1995). Integrated outpatients treatment for medically ill alcoholic men: results from a quasi-experimental study. *J Stud Alcohol*, 56(3), 337-343.
70. Oslin, D. W., Lynch, K. G., Maisto, S. A., Lantinga, L. J., McKay, J. R., Possemato, K., . . . Wierzbicki, M. (2014). A randomized clinical trial of alcohol care management delivered in Department of Veterans Affairs primary care clinics versus specialty addiction treatment. *J Gen Intern Med*, 29(1), 162-168. doi:10.1007/s11606-013-2625-8
71. Alford, D. P., LaBelle, C. T., Kretsch, N., Bergeron, A., Winter, M., Botticelli, M., & Samet, J. H. (2011). Collaborative care of opioid-addicted patients in primary care using buprenorphine: five-year experience. *Arch Intern Med*, 171(5), 425-431. doi:10.1001/archinternmed.2010.541
72. LaBelle, C. T., Han, S. C., Bergeron, A., & Samet, J. H. (2016). Office-Based Opioid Treatment with Buprenorphine (OBOT-B): Statewide Implementation of the Massachusetts Collaborative Care Model in Community Health Centers. *J Subst Abuse Treat*, 60, 6-13. doi:10.1016/j.jsat.2015.06.010
73. Fiellin, D. A., & O'Connor, P. G. (2002). Clinical practice. Office-based treatment of opioid-dependent patients. *N Engl J Med*, 347(11), 817-823. doi:10.1056/NEJMcp013579
74. Fiellin, D. A., Pantalon, M. V., Chawarski, M. C., Moore, B. A., Sullivan, L. E., O'Connor, P. G., & Schottenfeld, R. S. (2006). Counseling plus buprenorphine-naloxone maintenance therapy for opioid dependence. *N Engl J Med*, 355(4), 365-374. doi:10.1056/NEJMoa055255
75. Fiellin, D. A., Pantalon, M. V., Pakes, J. P., O'Connor, P. G., Chawarski, M., & Schottenfeld, R. S. (2002). Treatment of heroin dependence with buprenorphine in primary care. *Am J Drug Alcohol Abuse*, 28(2), 231-241.
76. Anton, R. F., O'Malley, S. S., Ciraulo, D. A., Cisler, R. A., Couper, D., Donovan, D. M., . . . Combine Study Research Group. (2006). Combined pharmacotherapies and behavioral interventions for alcohol dependence: the COMBINE study: a randomized controlled trial. *JAMA*, 295(17), 2003-2017. doi:10.1001/jama.295.17.2003
77. Dunlap, B., & Cifu, A. S. (2016). Clinical Management of Opioid Use Disorder. *JAMA*, 316(3), 338-339. doi:10.1001/jama.2016.9795
78. Ling, W., Hillhouse, M., Ang, A., Jenkins, J., & Fahey, J. (2013). Comparison of behavioral treatment conditions in buprenorphine maintenance. *Addiction*, 108(10), 1788-1798. doi:10.1111/add.12266



## References, CONT.

79. Amato, L., Minozzi, S., Davoli, M., & Vecchi, S. (2011). Psychosocial combined with agonist maintenance treatments versus agonist maintenance treatments alone for treatment of opioid dependence. *Cochrane Database Syst Rev*(10), CD004147. doi:10.1002/14651858.CD004147.pub4
80. Weiss, R. D., Potter, J. S., Fiellin, D. A., Byrne, M., Connery, H. S., Dickinson, W., . . . Ling, W. (2011). Adjunctive counseling during brief and extended buprenorphine-naloxone treatment for prescription opioid dependence: a 2-phase randomized controlled trial. *Arch Gen Psychiatry*, 68(12), 1238-1246. doi:10.1001/archgenpsychiatry.2011.121
81. Lee, J. D., Friedmann, P. D., Kinlock, T. W., Nunes, E. V., Boney, T. Y., Hoskinson, R. A., Jr., . . . O'Brien, C. P. (2016). Extended-Release Naltrexone to Prevent Opioid Relapse in Criminal Justice Offenders. *N Engl J Med*, 374(13), 1232-1242. doi:10.1056/NEJMoa1505409
82. Providers' Clinical Support System for Opioid Therapies. Retrieved from <http://pcss-o.org/>
83. Pear Therapeutics. (2017). Pear Therapeutics Obtains FDA Clearance of the First Prescription Digital Therapeutic to Treat Disease [Press release]
84. Kelly, J. F., & McCrady, B. S. (2008). Twelve-step facilitation in non-specialty settings. *Recent Dev Alcohol*, 18, 321-346.
85. Ferri, M., Amato, L., & Davoli, M. (2006). Alcoholics Anonymous and other 12-step programmes for alcohol dependence. *Cochrane Database Syst Rev*(3), CD005032. doi:10.1002/14651858.CD005032.pub2
86. Barry, M. J., & Edgman-Levitan, S. (2012). Shared decision making—pinnacle of patient-centered care. *N Engl J Med*, 366. doi:10.1056/NEJMp1109283
87. Elwyn, G., Frosch, D., Thomson, R., Joseph-Williams, N., Lloyd, A., Kinnersley, P., . . . Barry, M. (2012). Shared decision making: a model for clinical practice. *J Gen Intern Med*, 27(10), 1361-1367. doi:10.1007/s11606-012-2077-6
88. Miller, W. R. (2016). Sacred Cows and Greener Pastures: Reflections from 40 Years in Addiction Research. *Alcoholism Treatment Quarterly*, 34(1), 92-115. doi:10.1080/07347324.2015.1077637
89. Elwyn, G., Dehlendorf, C., Epstein, R. M., Marrin, K., White, J., & Frosch, D. L. (2014). Shared decision making and motivational interviewing: achieving patient-centered care across the spectrum of health care problems. *Ann Fam Med*, 12(3), 270-275. doi:10.1370/afm.1615
90. Bradley, K. A., Rubinsky, A. D., Lapham, G. T., Berger, D., Bryson, C., Achtmeyer, C., . . . Kivlahan, D. R. (2016). Predictive validity of clinical AUDIT-C alcohol screening scores and changes in scores for three objective alcohol-related outcomes in a Veterans Affairs population. *Addiction*, 111(11), 1975-1984. doi:10.1111/add.13505
91. Bobb, J., Lee, A., Lapham, G., & al., e. (2017). Evaluation of a Pilot Implementation to Integrate Alcohol-Related Care within Primary Care. *Int J Environ Res Public Health*, 14(9).
92. Pilkonis, P. A., Yu, L., Dodds, N. E., Johnston, K. L., Lawrence, S. M., & Daley, D. C. (2016). Validation of the alcohol use item banks from the Patient-Reported Outcomes Measurement Information System (PROMIS). *Drug Alcohol Depend*, 161, 316-322. doi:10.1016/j.drugalcdep.2016.02.014
93. Pilkonis, P. A., Yu, L., Dodds, N. E., Johnston, K. L., Lawrence, S. M., Hilton, T. F., . . . McCarty, D. (2015). Item banks for substance use from the Patient-Reported Outcomes Measurement Information System (PROMIS[R]): Severity of use and positive appeal of use. *Drug Alcohol Depend*, 156, 184-192. doi:10.1016/j.drugalcdep.2015.09.008
94. Pilkonis, P. A. (2013). Item banks for alcohol use from the Patient-Reported Outcomes Measurement Information System : Use, consequences, and expectancies. *Drug and alcohol dependence*, 130(1-3), 167-177. doi:10.1016/j.drugalcdep.2012.11.002
95. Annaheim, B., Scotto, T. J., & Gmel, G. (2010). Revising the Cannabis Use Disorders Identification Test (CUDIT) by means of Item Response Theory. *Int J Methods Psychiatr Res*, 19(3), 142-155. doi:10.1002/mpr.308
96. Voluse, A. C., Voluse, A. C., Gioia, C. J., Sobell, L. C., & Dum, M. (2012). Psychometric properties of the Drug Use Disorders Identification Test (DUDIT) with substance abusers in outpatient and residential treatment. *Addictive behaviors*, 37(1), 36-41. doi:10.1016/j.addbeh.2011.07.030
97. Babor TF. (2002). The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): development, reliability and feasibility. *Addiction*, 91, 1183-1194.

## References, CONT.

98. World Health Organization. (2010). The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): Manual for use in primary care. Retrieved from [http://apps.who.int/iris/bitstream/10665/44320/1/9789241599382\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/44320/1/9789241599382_eng.pdf?ua=1)
99. Press, M. J., Howe, R., Schoenbaum, M., Cavanaugh, S., Marshall, A., Baldwin, L., & Conway, P. H. (2017). Medicare Payment for Behavioral Health Integration. *N Engl J Med*, 376(5), 405-407. doi:10.1056/NEJMp1614134
100. Cowell, A. J., Dowd, W. N., Mills, M. J., Hinde, J. M., & Bray, J. W. (2017). Sustaining SBIRT in the wild: simulating revenues and costs for Screening, Brief Intervention and Referral to Treatment programs. *Addiction*, 112 Suppl 2, 101-109. doi:10.1111/add.13650
101. Brown, R. L. (2015). The business case for hospital-based Behavioral Screening and Intervention. *Journal of Hospital Administration*, 4, 95-103.
102. Maciosek, M. V., Coffield, A. B., Edwards, N. M., Flottemesch, T. J., Goodman, M. J., & Solberg, L. I. (2006). Priorities among effective clinical preventive services results of a systematic review and analysis. *Am J Prev Med*, 31(1), 52-61 (see erratum page 458 Volume 432, Number 455).
103. Maciosek, M. V., LaFrance, A. B., Dehmer, S. P., McGree, D. A., Flottemesch, T. J., Xu, Z., & Solberg, L. I. (2017). Updated Priorities Among Effective Clinical Preventive Services. *Ann Fam Med*, 15(1), 14-22. doi:10.1370/afm.2017
104. Quanbeck, A., Lang, K., Enami, K., & Brown, R. L. (2010). A cost-benefit analysis of Wisconsin's screening, brief intervention, and referral to treatment program: adding the employer's perspective. *WMJ*, 109(1), 9-14.
105. Bradley, K., Bush, K., Epler, A., Dobie, D., Davis, T., Sporleder, J., . . . Kivlahan, D. (2003). Two brief alcohol-screening tests From the Alcohol Use Disorders Identification Test (AUDIT): validation in a female Veterans Affairs patient population. *Arch Intern Med*, 163(7), 821-829.
106. Bush, K., Kivlahan, D. R., McDonnell, M. B., Fihn, S. D., Bradley, K. A., & for the Ambulatory Care Quality Improvement, P. (1998). The audit alcohol consumption questions (audit-c): An effective brief screening test for problem drinking. *Archives of Internal Medicine*, 158(16), 1789-1795. doi:10.1001/archinte.158.16.1789
107. Adamson, S. J., Kay-Lambkin, F. J., Baker, A. L., Lewin, T. J., Thornton, L., Kelly, B. J., & Sellman, J. D. (2010). An improved brief measure of cannabis misuse: the Cannabis Use Disorders Identification Test-Revised (CUDIT-R). *Drug Alcohol Depend*, 110(1-2), 137-143. doi:10.1016/j.drugalcdep.2010.02.017
108. McNeely, J., Wu, L., Subramaniam, G., & et al. (2016). Performance of the tobacco, alcohol, prescription medication, and other substance use (taps) tool for substance use screening in primary care patients. *Annals of Internal Medicine*, 165(10), 690-699. doi:10.7326/M16-0317
109. Moss, H. B., Chen, C. M., & Yi, H. Y. (2012). Measures of substance consumption among substance users, DSM-IV abusers, and those with DSM-IV dependence disorders in a nationally representative sample. *J Stud Alcohol Drugs*, 73(5), 820-828.
110. Hall, W., & Weier, M. (2015). Assessing the public health impacts of legalizing recreational cannabis use in the USA. *Clin Pharmacol Ther*, 97(6), 607-615. doi:10.1002/cpt.110
111. Hall, W., & Degenhardt, L. (2009). Adverse health effects of non-medical cannabis use. *Lancet*, 374(9698), 1383-1391. doi:10.1016/S0140-6736(09)61037-0
112. Hall, W. (2009). The adverse health effects of cannabis use: what are they, and what are their implications for policy? *Int J Drug Policy*, 20(6), 458-466. doi:10.1016/j.drugpo.2009.02.013
113. Rollnick, S., Miller, W.R., Butler, C.C. . (2013). *Motivational Interviewing in Health Care*. New York, NY: Guilford.
114. Lundahl, B., Moleni, T., Burke, B. L., & Butters, R. (2013). Motivational interviewing in medical care settings: A systematic review and meta-analysis of randomized controlled trials. *Patient Education and Counseling*, 93(2), 157-168. doi:10.1016/j.pec.2013.07.012
115. Babson, K. A., Boden, M. T., Harris, A. H., Stickle, T. R., & Bonn-Miller, M. O. (2013). Poor sleep quality as a risk factor for lapse following a cannabis quit attempt. *J Subst Abuse Treat*, 44(4), 438-443. doi:10.1016/j.jsat.2012.08.224
116. Fleming M.F., Mundt M.P., French M.T., Manwell L.B., Stauffacher E.A., & K.L., B. (2000). Benefit-cost analysis of brief physician advice with problem drinkers in primary care settings. *Medical Care* 38:7-18.
117. Fleming, M. F., Barry, K. L., Manwell, L. B., Johnson, K., & London, R. (1997). Brief physician advice for problem alcohol drinkers. A randomized controlled trial in community-based primary care practices. *JAMA*, 277(13), 1039-1045.

118. Estee S., Wickizer T., He L., Shah M.F., & D., M. (2010). Evaluation of the Washington State screening, brief intervention and referral to treatment project: cost outcomes for Medicaid patients screened in hospital emergency departments. *Medical Care*, 48, 18-24.
119. Paltzer J., Brown R.L., Burns M., Moberg D.P., Mullahy J., Sethi A., & D., W. (2017). Substance use screening, brief Intervention, and referral to treatment among Medicaid patients in Wisconsin: impacts on healthcare utilization and costs. *Journal of Behavioral Health Services and Research*, 44, 102-112.
120. Nilsen, P., Aalto, M., Bendtsen, P., & Seppa, K. (2006). Effectiveness of strategies to implement brief alcohol intervention in primary healthcare. A systematic review. *Scand J Prim Health Care*, 24(1), 5-15. doi:10.1080/02813430500475282
121. Williams, E. C., Johnson, M. L., Lapham, G. T., Caldeiro, R. M., Chew, L., Fletcher, G. S., . . . Bradley, K. A. (2011). Strategies to implement alcohol screening and brief intervention in primary care settings: a structured literature review. *Psychol Addict Behav*, 25(2), 206-214. doi:10.1037/a0022102
122. Field, C. A., Baird, J., Saitz, R., Caetano, R., & Monti, P. M. (2010). The mixed evidence for brief intervention in emergency departments, trauma care centers, and inpatient hospital settings: what should we do? *Alcohol Clin Exp Res*, 34(12), 2004-2010. doi:10.1111/j.1530-0277.2010.01297.x
123. Saitz, R. (2014). Screening and brief intervention for unhealthy drug use: little or no efficacy. *Front Psychiatry*, 5, 121. doi:10.3389/fpsy.2014.00121
124. Krupski, A., Sears, J. M., Joesch, J. M., Estee, S., He, L., Dunn, C., . . . Ries, R. (2010). Impact of brief interventions and brief treatment on admissions to chemical dependency treatment. *Drug Alcohol Depend*, 110(1-2), 126-136. doi:10.1016/j.drugalcdep.2010.02.018
125. Kim, T. W., Bernstein, J., Cheng, D. M., Lloyd-Travaglini, C., Samet, J. H., Palfai, T. P., & Saitz, R. (2017). Receipt of addiction treatment as a consequence of a brief intervention for drug use in primary care: a randomized trial. *Addiction*, 112(5), 818-827. doi:10.1111/add.13701
126. Saitz, R. (2014). Lost in translation: The perils of implementing alcohol brief intervention when there are gaps in evidence and its interpretation. *Addiction*, 109(7), 1060-1062. doi:10.1111/add.12500