

## Substance Misuse among Older Adults: MISA Handbook

*This chapter will review substance misuse among older adults: its scope, defining criteria and guidelines, mediating risk factors, screening and treatment.*

### Scope of the Problem

A substantial and growing number of older adults misuse alcohol, prescription drugs, or other substances. Nearly one in five (17%) older adults are affected by alcohol and prescription drug misuse.

Within substance misuse, alcohol related problems are the largest class of problems seen in older adults. Although estimates vary across studies from 1-15 percent, most investigators believe that about 10 percent of all adults 65 and older have at least one alcohol-related problem (Hanson, & Gutheil, 2004).

One in four older adults has a significant mental disorder. Among the most common mental health problems in older persons are depression, anxiety disorders, and dementia (Bartels, et al, 2005). This is exacerbated by the following demographic projections:

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<p><b>U.S. Demographic Projections by year 2030:</b></p> <ul style="list-style-type: none"> <li>➤ Older adults (age 65 and older) will comprise 20% of population or 1 in 5 individuals.</li> <li>➤ Older adults in need of substance abuse treatment will more than double to 4.4 million individual.</li> <li>➤ Older adults with major psychiatric illnesses will more than double to 15 million individuals.</li> </ul> <p>Source: Bartels, et al, 2005</p>	<p><b>Hawaii Demographic Projections by year 2030:</b></p> <ul style="list-style-type: none"> <li>➤ Older adults (age 60 and older) will comprise over 25% of population or 1 in 4 individuals.</li> <li>➤ Hawaii's older adult population has grown faster than the older population nationally</li> </ul> <div style="text-align: center;"> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <caption>Population Data from Chart</caption> <thead> <tr> <th>Age Group</th> <th>U.S. Population</th> <th>HI Population</th> </tr> </thead> <tbody> <tr> <td>Age 60+</td> <td>~50,000</td> <td>~220,000</td> </tr> <tr> <td>Age 85+</td> <td>~20,000</td> <td>~30,000</td> </tr> </tbody> </table> </div> <p>Source: Executive Office on Aging; retrieved from: <a href="http://www4.hawaii.gov/eoa/information/stats/profile2006rev.pdf">http://www4.hawaii.gov/eoa/information/stats/profile2006rev.pdf</a></p>	Age Group	U.S. Population	HI Population	Age 60+	~50,000	~220,000	Age 85+	~20,000	~30,000
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It is important to note that statistics related to substance misuse among older adults remain underestimated, under-identified, under-diagnosed and under-treated (SAMHSA, CSAT, 2001).

SAMHSA Administrator, Charles Curie notes:

*“Too often family members are ashamed of the problem and choose not to address it. Health care providers tend not to ask older patients about alcohol abuse if it wasn’t a problem in their lives in earlier years. Sometimes the symptoms are mistaken for those of dementia, depression, or other problems common to older adults.”*  
 (SAMSHA News Release, 2006)

### Defining Alcohol Misuse Specific to Older Adults

Alcohol misuse has two typical defining categories: alcohol abuse and alcohol dependence. Clinicians often rely on criteria listed in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition Text Revision (DSM-IV-TR). *The DSM-VI-TR does not provide age specific criteria for alcohol-related diagnosis. Therefore, it is important to note special considerations for older adults in reviewing these criteria (see Figure 1).* For example, certain items such as “a failure to fulfill major role obligations at work, home, or school” may be less applicable to older adults with fewer family and work obligations. Alcohol use should be considered along a continuum from abstinence to dependence rather than rigid categories. *It is important to identify at-risk drinkers to prevent progression to abuse or dependence;* screening tools will be reviewed later in this chapter.

<b>Figure 1: Applying DSM-IV Diagnostic Criteria to Older Adults with Alcohol Problems</b>	
Diagnostic criteria for alcohol dependence are submitted within the DSM-IV’s general criteria for substance dependence. There are special considerations when applying DSM-IV criteria to older adults with alcohol problems.	
<b>Criteria</b>	<b>Special Considerations for Older Adults</b>
Tolerance	May have problems with even low intake due to increased sensitivity to alcohol and higher blood alcohol levels
Withdrawal	Many late onset alcoholics do not develop physiological dependence
Taking larger amounts or over a longer period than was intended	Increased cognitive impairment can interfere with self-monitoring; drinking can exacerbate cognitive impairment
Unsuccessful efforts to control use	Same issues across life span
Spending much time to obtain and use alcohol and to recover from effects	Negative effects can occur with relatively low use
Giving up activities due to use	Making detection of problems more difficult
Continuing use despite physical or psychological problem caused by use	May not know or understand that problems are related to use, even after medical advice
Source: SAMHSA TIP 26, p 18 (2001)	

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the Center for Substance Abuse Treatment (CSAT) established protocols for people age 65 and older (see Figure 2).

These guidelines were established to prevent problems with alcohol for healthy older adults who do not have serious medical problems or psychoactive medications.

### **Figure 2: Alcohol Guidelines Specific for Older Adults**

- No more than 1 standard drink per day or 7 standard drinks per week.
- Maximum of 2 standard drinks on any drinking occasion (i.e., New Year's Eve, weddings, etc.).

A standard drink is one can (12 oz.) of beer or ale; a single shot (1.5 oz.) of hard liquor; a glass (5 oz.) of wine; or a small glass (4 oz.) of sherry or liqueur. (SAMHSA, CSAT, 2001)

### **Patterns of Alcohol Misuse**

Clinical characteristics vary based on when individuals begins misusing alcohol. Zimberg (1995) suggested three subgroups for problem drinking older adults:

- Early onset: alcohol problems started in young adulthood and continued into later part of individual's life.
- Late onset exacerbation: history of intermittent problem drinking over the years but developed a more chronic alcohol problem only in late adulthood.
- Late onset: alcohol use problems only in their later years. This is also known as "reactive alcoholism".

Early onset classification captures approximately two-thirds of older problem drinkers, indicating that they started having alcohol related problems before age 50 years old (AARP, 1992).

Typically, longer drinking history equates to more exacerbated physical, social and psychological problems. This information can help guide the choice of intervention. For example, brief intervention might be more appropriate for late onset drinkers rather than early onset drinkers because the problems tend to be milder and more amenable to treatment (SAMHSA, CSAT, 2001).

## Mediating Risk Factors

Substance abuse among older adults are associated with poor health outcomes, higher health care utilization, increased complexity of the course and prognosis of many mental and physical illness, increased disability and impairment, compromised quality, increased caregiver stress, increased mortality, and higher risk of suicide. (Bartels, et al, 2006)

Biological, psychological, and social changes during the aging process make older adults more vulnerable to substance misuse problems. Biological vulnerabilities include increased risk of hypertension, myocardial infarction, hemorrhagic stroke, cirrhosis, diminished mobility, impaired sensory capacities, chronic pain, and poor physical health (Bartels, et al., 2005). Family history of alcohol problems is also an important biological factor because there is strong evidence that drinking behaviors are greatly influenced by genetics (SAMHSA, CSAT, 2001).

### Age Affects Absorption, Distribution and Metabolism of Substances:

As one ages, alcohol stays in the system longer due to decreased kidney capacity. The pharmacokinetic and pharmacodynamic effects of alcohol on the aging organ systems result in higher peak blood alcohol levels (BALs) and increased responsiveness to doses that caused little impairment at a younger age.

(SAMHSA, CSAT, 2001)

Psychological factors are important because of the prevalence of depression, anxiety disorders, and dementia among older adults. Older adults may misuse substances to self medicate for mental illness because they are the least likely age group to seek professional mental health treatment. Less than three percent of older adults report seeing a mental health professional. Alcohol interactions with psychoactive medications, such as benzodiazepines, barbiturates, and antidepressants can have adverse drug reactions. (Bartels, et al, 2005)

Alcohol can interfere with the metabolism of many medications and lead to adverse reactions. Eighty-three percent of older adults take prescription medication and up to 19 percent of older adults are affected by alcohol and medication misuse. (Bartels, et al., 2005; Cone, 2005)

Social factors affecting older adults include multiple losses such as spouse, family members, friends, job, income, and driving privileges. The Treatment Improvement Protocol (TIP) for Substance Abuse Among Older Adults note relevant life changes associated with substance abuse in older adults (see Figure 3). (SAMHSA, CSAT, 2001)

**Figure 3: Life Changes Associated with Substance Abuse in Older Adults**

<u><b>Emotional and Social Problems</b></u>	<u><b>Medical Problems</b></u>	<u><b>Practical Problems</b></u>
<ul style="list-style-type: none"> <li>• Bereavement and sadness</li> <li>• Loss of               <ul style="list-style-type: none"> <li>➤ Friends</li> <li>➤ Family members</li> <li>➤ Social status</li> <li>➤ Occupation and sense of professional identity</li> <li>➤ Hopes for the future</li> <li>➤ Ability to function</li> </ul> </li> <li>• Consequent sense of being a “nonperson”</li> <li>• Social isolation and loneliness</li> <li>• Reduced self-regard or self-esteem</li> <li>• Family conflict and estrangement</li> <li>• Problems in managing leisure time/boredom</li> <li>• Loss of physical attractiveness (especially important for women)</li> </ul>	<ul style="list-style-type: none"> <li>• Physical distress</li> <li>• Chronic Pain</li> <li>• Physical disabilities and handicapping conditions</li> <li>• Insomnia</li> <li>• Sensory deficits:               <ul style="list-style-type: none"> <li>➤ Hearing</li> <li>➤ Seeing</li> </ul> </li> <li>• Reduced mobility</li> <li>• Cognitive impairment and change</li> </ul>	<ul style="list-style-type: none"> <li>• Impaired self-care</li> <li>• Reduced coping skills</li> <li>• Decreased economic security or new poverty status due to               <ul style="list-style-type: none"> <li>➤ Loss of income</li> <li>➤ Increased health care costs</li> </ul> </li> <li>• Dislocation               <ul style="list-style-type: none"> <li>➤ Move to new housing, or family moves away</li> <li>➤ Homelessness/ Inadequate housing</li> </ul> </li> </ul>

### Screening

There are three alcohol screening instruments recommended for use with older adults:

- Cut down, Annoyed, Guilty, Eye-opener (CAGE) Questionnaire
- Michigan alcoholism Screening Test-Geriatric Version (MAST-G)
- Alcohol Use Disorders Identification Test (AUDIT).

The Cage Questionnaire is efficient and widely used. Two or more positive responses indicated an alcohol problem *but even one positive response is reason for further exploration among older adults*. The MAST-G is longer but more sensitive in identifying older drinkers with a spectrum of alcohol use disorders. (Blow, et al, 2005). The AUDIT is noteworthy because of its cross-cultural validity; this survey has 10 questions and is useful for identifying alcohol problems in ethnic minority groups (SAMHSA, CSAT, 2001). See Appendix section for copies of these instruments and scoring instructions.

## Treatment Approaches

Moving older adults into treatment: After determining that an older adult may benefit from a reduction in or complete abstinence from alcohol use, the clinician must next assess the patient's understanding of this benefit. Many older adults may not know that their alcohol use is affecting their health. Patient understanding and cooperation are essential both in eliciting accurate information and following through on the treatment plan prescribed.

Clinicians should use the assessment process as an opportunity to educate the older adult and to motivate him or her to accept treatment.

Many health care professionals rarely interact with older adults. To facilitate the assessment process with this population, the Consensus Panel recommends that clinicians adhere to the following guiding principles: (see Figure 4).

### Figure 4: Guiding Principles for Interacting with Older Adults:

- Areas of concern most likely to motivate older substance abusers are their physical health, the loss of independence and function, financial security, and maintenance of independence.
- Assessment and treatment decisions must include the patient in order to be successful. This is particularly relevant for older adults, who may be very uncomfortable in formalized addiction treatment programs that do not include many of their peers or address their specific developmental and health needs.
- Depending on an individual's particular situation, it may be important to include family members in treatment or intervention discussions (understanding that children may vacillate between a desire to help and denial and that patient confidentiality must always be respected).
- Addiction is a chronic illness that ebbs and flows. Thus, patients' needs will change over time and will require different types and intensities of treatment.
- Because many older adults have several health care providers (e.g., visiting nurses, social workers, adult day care staff, religious personnel), it is important to include this network as a resource in assessment and in providing treatment.
- Given the complex health needs of older adults, health care providers may need assistance from experienced nonmedical personnel to adequately assess the totality of treatment issues and choices. Providers should be aware of their limitations both in providing addiction treatment and in assessing and treating mental or physical health needs.
- All treatment strategies must be culturally competent and, to the extent possible, incorporate appropriate ethnic considerations (e.g., rituals).
- Overarching continuity of care issues and considerations should be identified and addressed, especially in rural and minority communities where emergency room staff function as primary care providers.

Source:

<http://ncadi.samhsa.gov/govpubs/BKD250/26g.aspx>

*Although treatment success among older adults is comparable to younger substance abusing populations, older adults are far less likely to receive professional care.*

An estimated 15 percent of older adults with substance problems receive adequate treatment (Myers, Dice & Drew, 2000). Treatment is compromised by underdiagnosis or misdiagnosis of alcohol problems. This problem is either ignored by health care professionals or hidden by the individuals and their families. Older drinkers and physicians tend to attribute alcohol-induced problems such as blackouts, financial problems or job loss to age-related medical or psychosocial problems rather than alcohol-use problems (Doweiko, 2006).

*Estimates of primary care physicians missing substance related diagnosis in older adults are as high as 94 percent (Cone, 2005).*

The past decade has been especially rich in the development of knowledge regarding effective treatments for substance abuse among older adults. The following approaches for effective treatment of older adult substance misuse were recommended by the TIP Consensus Panel comprised of clinical researchers, clinicians, program administrators, and patient advocates established by SAMHSA:

- Cognitive-behavioral approaches
- Group-based approaches
- Individual counseling
- Medical/psychiatric approaches
- Marital and family involvement/family therapy
- Case management/community-linked services and outreach
- See Figure 5: Treatment Objectives and Approaches (SAMHSA, CSAT, 2001)

**Figure 5: Recommended Treatment Objectives and Approaches**

General Objectives/ Examples	General Approaches/Examples
Eliminate or reduce substance abuse	Cognitive-behavioral (group or individual) <ul style="list-style-type: none"> <li>• Alcohol (drug) effects</li> <li>• Relapse prevention</li> <li>• Stress management</li> </ul> Group approaches <ul style="list-style-type: none"> <li>• Alcohol (drug) effects education</li> </ul> Medical <ul style="list-style-type: none"> <li>• Naltrexone, acamprosate (alcohol)</li> </ul>
Safely manage intoxication episodes during treatment	Medical <ul style="list-style-type: none"> <li>• Remove patient from activities and observe</li> <li>• Link and refer to detoxification program</li> </ul>
Enhance relationships	Cognitive-behavioral (group or individual) <ul style="list-style-type: none"> <li>• Social skills and network building</li> </ul> Group approaches <ul style="list-style-type: none"> <li>• Social support</li> <li>• Socialization skill education</li> <li>• Gender-specific issues</li> </ul> Marital and family approaches <ul style="list-style-type: none"> <li>• Spouse counseling</li> <li>• Marital therapy</li> <li>• Family therapy</li> </ul> Case management <ul style="list-style-type: none"> <li>• Linkage to community social programs</li> <li>• Home visitation</li> </ul> Individual counseling <ul style="list-style-type: none"> <li>• Focus on psychodynamic issues in relationships</li> </ul>
Promote health Improve sleep habits Improve nutrition Increase exercise Reduce tobacco use Reduce stress	Medical <ul style="list-style-type: none"> <li>• Provide primary medical care</li> </ul> Cognitive-behavioral (group or individual) <ul style="list-style-type: none"> <li>• Self-management skills training</li> </ul> Group approaches <ul style="list-style-type: none"> <li>• Health education</li> <li>• Education on nutrition, diet, cooking, shopping</li> <li>• Sleep hygiene</li> </ul>
Stabilize and resolve comorbidities Medical Psychiatric (e.g., depression, anxiety) Sensory deficits	Medical <ul style="list-style-type: none"> <li>• Consultation and special assessments, including medication assessment</li> <li>• Primary and specialized medical care</li> <li>• Psychiatric care for chronic mental disorders (by geriatric psychiatrist, if possible)</li> <li>• Pain management for chronic pain disorders</li> <li>• Antidepressants, antianxiety medication</li> </ul> Cognitive-behavioral (group or individual) <ul style="list-style-type: none"> <li>• Relaxation training</li> </ul>

## Brief Intervention for At-Risk Drinkers

Research has shown that 10 to 30 percent of nondependent problem drinkers reduce their drinking to moderate levels following a brief intervention by a physician or other clinician. A brief intervention is one or more counseling sessions, which may include motivation-for-change strategies, patient education, assessment and direct feedback, contracting and goal setting, behavioral modification techniques, and the use of written materials such as self-help manuals (Fleming et al., 1997b). (See Figure 6.)

### Figure 6: FRAMES Model for Brief Intervention

One approach devised to facilitate brief interventions is known by the acronym FRAMES. This approach emphasizes:

<p>Model:</p> <ul style="list-style-type: none"> <li>• <b>F</b>eedback regarding personal risk or impairment is given to the client following assessment of substance abuse</li> <li>• <b>R</b>esponsibility for change is placed on the client but with respect for the client's right to make choices</li> <li>• <b>A</b>dvice about changing, reducing or stopping substance use is given to the client in a nonjudgemental manner</li> <li>• <b>M</b>enu of self-directed options for change and treatment alternatives are offered to the client</li> <li>• <b>E</b>mpathetic counseling showing warmth, respect and understanding is emphasized</li> <li>• <b>S</b>elf-efficacy or optimistic empowerment is developed in the client to encourage change.</li> </ul> <p>Sources: Brown, 2006; SAMHSA TIP 26, 2001</p>	<p>Example:</p> <p>Feedback: The main aspects I'm concerned about are that you report drinking 2 glasses of wine each evening; you mentioned bumping into things; and you've had a few falls recently. As your body matures it changes how it responds to alcohol. People are often not aware of those changes. In the past having 2 glasses of wine each evening may not have been a problem but now it may be affecting you differently. Your current pattern exceed the daily and weekly screening limits. This means you drink more than 90% of the people in your age bracket. This puts you in the highest category of risk for having or developing a serious substance use problem. Since you have been having more falls lately (or whatever consequences are appropriate), I'm recommending that you obtain a full assessment as soon as possible.</p> <p>Note: Practitioner can educate the client on drinking patterns, rates, and risks by reviewing the Drinking Chart in the National Epidemiological Survey on Alcohol and Related Conditions; see Appendix 4.</p>
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Despite the resistance that some older problem drinkers or drug abusers exert, treatment is worth pursuing. Studies show that older adults are more compliant with treatment and have treatment outcomes as good as or better than those of younger patients (Oslin et al., 1997; Atkinson, 1995).

## **Gender Differences and Considerations**

Currently, one-third of alcohol dependent individuals are believed to be women (Doweiko, 2006). Females are more physically vulnerable to alcohol than men. Doweiko (2006) notes “because of the differences in body mass, fluid content, and levels of gastric alcohol dehydrogenase found in the woman’s body, women require up to 40% less alcohol than men to achieve the same blood alcohol level.” Women typically have a later onset of drinking; a recent study found women had a mean age onset of 46 years compared to men’s mean age onset of 27 years (SAMHSA, CSAT, 2001). Women, however, face more exacerbated medical consequences. Blume (1994) describes women’s alcohol related consequences as being “telescoped” into a shorter time frame, i.e., women with alcoholism will typically develop cirrhosis of the liver after 13 years of drinking compared to 22 years for a typical male with alcoholism. Women present higher rates of psychiatric comorbidity, especially mood and anxiety disorders. Men’s comorbidity is more often secondary to substance disorders but women’s primary diagnosis is more often a psychiatric disorder. (Zilberman, Tavares, & Guebaly, 2003)

Women’s vulnerabilities go beyond their physical realm. Women with alcohol misuse disorders are more likely to be poor, be widowed or divorced, have a problem drinking spouse, and live in assisted living or nursing home. Women are more likely to have a history of victimization. (Doweiko, 2006)

Older adult females are the fastest growing segment of our population; they outnumber men age 65 and older by three to two (Hooyman & Kiyak, 2005).

## **Future Directions**

Given the demographic projections, growing cultural diversity, increasing life expectancy, and substance using lifestyle of the “baby boom” generation, alcohol-related problems among older adults is an escalating public health concern. An estimated 70 percent increase in the rate of treatment needs among older adults by 2020 will place greater pressure on the treatment programs and health care resources (Gfroerer, Penne, Pemberton, & Folsom, 2003). Prevention is essential in addressing this problem. The National Council on the Aging and SAMHSA collaborated on a recent publication entitled “Promoting Older Adult Health,” which describes several promising programs targeted at substance misuse among older adults. For example, the

Gatekeeper program is a community-wide system of proactively identifying older adults at risk of alcohol misuse (Bartels, et al., 2005). In addition to mobilizing preventative efforts, research on culturally responsive treatments is essential. Designing effective services for the increasing ethnically diverse older population hinges on research-based knowledge. This is a crucial time to impact age-appropriate care for the growing number of older Americans.

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**Appendix 1:**  
**Cut down, Annoyed, Guilty, Eye-opener (CAGE) Questionnaire**

**The CAGE Questionnaire**

1. Have you ever felt you should cut down on your drinking?
2. Have people annoyed you by criticizing your drinking?
3. Have you ever felt bad or guilty about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (eye opener)?

**Scoring:**

Item responses on the CAGE are scored 0 for “no” and 1 for “yes” answers, with a higher score indicating alcohol problems. A score of 2 or more is considered clinically significant.

Source: Ewing, 1984.

## Appendix 2: Michigan Alcoholism Screening Test - Geriatric Version (MAST-G)

Michigan Alcoholism Screening Test - Geriatric Version (MAST-G)		
After drinking have you ever noticed an increase in your heart rate or beating in your chest?	YES	NO
When talking with others, do you ever underestimate how much you actually drink?	YES	NO
Does alcohol make you sleepy so that you often fall asleep in your chair?	YES	NO
After a few drinks, have you sometimes not eaten or been able to skip a meal because you didn't feel hungry?	YES	NO
Does having a few drinks help decrease your shakiness or tremors?	YES	NO
Does alcohol sometimes make it hard for you to remember parts of the day or night?	YES	NO
Do you have rules for yourself that you won't drink before a certain time of the day?	YES	NO
Have you lost interest in hobbies or activities you used to enjoy?	YES	NO
When you wake up in the morning, do you ever have trouble remembering part of the night before?	YES	NO
Does having a drink help you sleep?	YES	NO
Do you hide your alcohol bottles from family members?	YES	NO
After a social gathering, have you ever felt embarrassed because you drank too much?	YES	NO
Have you ever been concerned that drinking might be harmful to your health?	YES	NO
Do you like to end an evening with a nightcap?	YES	NO
Did you find your drinking increased after someone close to you died?	YES	NO
In general, would you prefer to have a few drinks at home rather than go out to social events?	YES	NO
Are you drinking more now than in the past?	YES	NO
Do you usually take a drink to relax or calm your nerves?	YES	NO
Do you drink to take your mind off your problems?	YES	NO
Have you ever increased your drinking after experiencing a loss in your life?	YES	NO
Do you sometimes drive when you have had too much to drink?	YES	NO
Has a doctor or nurse ever said they were worried or concerned about your drinking?	YES	NO
Have you ever made rules to manage your drinking?	YES	NO
When you feel lonely, does having a drink help?	YES	NO

### Scoring: Five or more "yes" responses are indicative of an alcohol problem.

For further information, contact Frederic C. Blow, Ph.D., at University of Michigan Alcohol Research Center, 400 E. Eisenhower Parkway, Suite A, Ann Arbor, MI 48108; (734) 998-7952. Source: Blow, F.C.; Brower, K.J.; Schulenberg, J.E.; Demo-Dananberg, L.M.; Young, J.P.; and Beresford, T.P. The Michigan Alcoholism Screening Test - Geriatric Version (MAST-G): A new elderly-specific screening instrument. *Alcoholism: Clinical and Experimental Research* 16:372, 1992.  
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## Appendix 3: Alcohol Use Disorders Identification Test (AUDIT)

Your practice may choose to have patients fill out a written screening instrument before they see a clinician. It takes only about 5 minutes to complete, has been tested internationally in primary care settings, and has high levels of validity and reliability.<sup>13</sup> You may photocopy these pages or download them from [www.niaaa.nih.gov/guide](http://www.niaaa.nih.gov/guide).

### Scoring the AUDIT

Record the score for each response in the blank box at the end of each line, then total these numbers. The maximum possible total is 40. Total scores of 8 or more for men up to age 60 or a total score of 4 or more for women, adolescents, and men over 60 are considered positive screens. For patients with totals near the cut-points, clinicians may wish to examine individual responses to questions and clarify them during the clinical examination.

*Note:* The AUDIT's sensitivity and specificity for detecting heavy drinking and alcohol use disorders varies across different populations. Lowering the cut-points increases sensitivity (the proportion of "true positive" cases) while increasing the number of false positives. Thus, it may be easier to use a cut-point of 4 for all patients, recognizing that more false positives may be identified among men.

### Client Directions:

Because alcohol use can affect your health and can interfere with certain medications and treatments, it is important that we ask some questions about your use of alcohol. Your answers will remain confidential, so please be honest.

Place an X in one box that best describes your answer to each question.

Questions	0	1	2	3	4
1. How often do you have a drink containing alcohol?	Never	Monthly or less	2 to 4 times a month	2 to 3 times a week	4 or more times a week
2. How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more
3. How often do you have 5 or more drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
8. How often during the last year have you been unable to remember what happened the night before because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
9. Have you or someone else been injured because of your drinking?	NO	–	Yes, but not in the last year	–	Yes, during the last year
10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	NO	–	Yes, but not in the last year	–	Yes, during the last year
<b>Total:</b> _____					

**Note:** A free AUDIT manual with guidelines for use in primary care settings is available online at [www.who.org](http://www.who.org).

Source: <http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/guide.pdf>

## Appendix 4: U.S. Adult Drinking Patterns

Nearly 3 in 10 U.S. adults engage in at-risk drinking patterns and thus would benefit from advice to cut down or a referral for further evaluation. During a brief intervention, you can use this chart to show that (1) most people abstain or drink within the recommended limits and (2) the prevalence of alcohol use disorders rises with heavier drinking. Though a wise first step, cutting to within the limits is not risk free, since motor vehicle crashes and other problems can occur at lower drinking levels.

WHAT'S YOUR DRINKING PATTERN?	HOW COMMON IS THIS PATTERN?	HOW COMMON ARE ALCOHOL DISORDERS IN DRINKERS WITH THIS PATTERN?
<b>Based on the following limits—number of drinks:</b> On any <b>DAY</b> —Never more than 4 (men) or 3 (women) – <b>and</b> – In a typical <b>WEEK</b> —No more than 14 (men) or 7 (women)	Percentage of U.S. adults aged 18 or older*	Combined prevalence of alcohol abuse and dependence
Never exceed the daily or weekly limits (2 out of 3 people in this group abstain or drink fewer than 12 drinks a year)	72%	fewer than 1 in 100
Exceed only the daily limit (More than 8 out of 10 in this group exceed the daily limit <i>less than once a week</i> )	16%	1 in 5
Exceed both daily and weekly limits (8 out of 10 in this group exceed the daily limit <i>once a week or more</i> )	10%	almost 1 in 2

\* Not included in the chart, for simplicity, are the 2 percent of U.S. adults who exceed *only* the weekly limits. The combined prevalence of alcohol use disorders in this group is 8 percent.

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