
Understanding Alcohol Consumption Patterns among Older Adults: Continuity and Change

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Older adults drink in ways that are reflective of earlier life stages, but alcohol consumption also changes as people move from middle age to older adulthood. Habits like alcohol use may continue in later life as people maintain a sense of continuity [1] from earlier life stages. At the same time, the aging process itself may alter drinking behavior, as older adults develop health-related conditions or experience life changes that exert upward or downward pressures on drinking or change the context and pattern of drinking. Understanding alcohol use among older adults requires a life course perspective [2], one that sees biological, social, and psychological factors as an unfolding process over one's life. Broadly speaking, to understand alcohol consumption patterns and associated risks among older adults, one must consider both biopsychosocial processes that emerge earlier in life and aging-specific processes, such as multimorbidity and retirement. The following chapter will explore factors that influence how drinking patterns evolve or remain constant and will define different levels of risk as they are currently framed within public health.

The life course perspective is valuable in understanding the ways in which older adulthood as a life stage fits within an overall developmental framework. One challenge is that the definition of older adulthood itself can vary greatly. For both theoretical and practical reasons, researchers have chosen either age-specific cutoffs (e.g., age 65) or event thresholds (e.g., retirement) for defining older adulthood. One noted developmental theorist defined middle adulthood from ages 40 to 65, with late adulthood beginning with a transition to beginning at age 60 [3]. After age 65, older adulthood has been divided into its own stages: the young-old (aged 65–74), the old-old (aged 75–84), and the oldest-old (aged 85 and older) [4, 5]. Whenever

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possible, the age ranges of studies will be included in discussion of research on alcohol use patterns and older adults with the idea that later middle age samples (aged 50+) may be very different than samples of the oldest-old.

2.1 Older Adult Drinking Seen Within the Life Course

In the population overall, older adulthood is a life stage in which overall alcohol consumption decreases, binge drinking becomes less common, and individuals give up drinking. Brennan and colleagues [6], in a 20-year study of alcohol use among community dwelling primarily white older adults in early older adulthood (ages 55–65), identified overall declines in consumption levels and number of problems associated with drinking. In an analysis of the Health and Retirement Study [7], researchers also identified a decline in alcohol consumption into older adulthood. Older adults in the Rancho Bernardo study, a longitudinal investigation of older adults aged 50–89, also reported declines in daily consumption over a period of 24 years [8]. Other longitudinal research suggests that the process of decline also occurs in late middle age into older adulthood [9]. In addition, data collected internationally supports the assertion that older adulthood is a period of declining drinking. Analysis by Gee and colleagues [10] identified decreases in drinking among Japanese older adults beginning during the sixth decade of life. Similarly, researchers analyzing the English Longitudinal Study on Aging [11] identified decreased quantity and frequency of alcohol consumption over three waves of data collection.

Two forces specific to later life may be at work in decreasing levels of alcohol consumption in late life. First, the “sick-quitter” hypothesis [12, 13] suggests that changes in health during the aging process limit alcohol consumption. With declines in health, older adults decrease the quantity and frequency of their drinking leading to lower average consumption in the overall older adult population [11, 14]. Similarly, differential mortality of heavy drinkers may lead to decreases in alcohol use among cohorts of older adults; these changes in average drinking may be a function of early mortality of heavy drinkers [15].

Although alcohol use generally declines throughout the course of older adulthood, the population of older adults exhibits a great deal of variability in drinking patterns. Within the general population of older adults, some individuals maintain stable drinking habits, and some may increase their drinking and develop problems in older adulthood. Having a history of drinking problems has been found to predict later increases in drinking among older adults [7, 9, 16, 17]. Although the idea that history predicts future behavior is intuitive, it provides a simple foundation for assessing drinking in this population. Measures like the Alcohol Use Disorders Identification Test (AUDIT) include items on lifetime problems [18] as screening questions for assessing current alcohol-related risk. In addition to drinking history, longitudinal research studies have found that older men tend to consume alcohol at higher levels than women, and their consumption levels decline more slowly than women’s [6]. Additionally, factors that may be associated with heavier drinking in late-middle age, such as coping motives/tension reduction related drinking, may be

lead a greater decline in drinking with age [19]. Advanced age itself may also contribute to declines in drinking among older adults. As older adults move from so-called young-old age (i.e., 65–74) to becoming the “oldest-old” (i.e. 85+), the process of decreasing alcohol consumption may accelerate [6, 8].

2.2 Understanding Alcohol Abstinence in Older Adulthood

Life course research on alcohol use among older adults points to an overall decline in consumption due to decreasing quantity and frequency of use as well as transitions to abstinent use. Nonetheless, late-life nondrinking is only part of the abstinence picture. Lifetime nondrinkers are a distinct group with characteristics that may be markedly different from those who stop drinking in late life. This is particularly important when considering health and social correlates of drinking. Numerous studies suggest that lifetime nondrinkers are more likely to be female, display greater religiosity (e.g., attend religious services), and have lower levels of education than their moderate drinking peers [20, 21]. Recent research by Choi and colleagues [22] identified significantly lower risk of anxiety and depressive disorders among lifetime abstainers than nonbinge drinkers, while former drinkers displayed a greater likelihood of past-year suicidal ideation. Research on lifetime abstainers and former drinkers has implications for our understanding of drinking patterns in late life. Older adult nondrinkers are a heterogeneous population, and as such, lifetime nondrinkers and former drinkers should be studied separately. This is especially important when considering the issue of health and drinking because the context for abstinence may be different in these two groups [23, 24]. For instance, there is a body of research focused on the so-called, j-curve hypothesis [25, 26], the idea that morbidity and mortality are lower among individuals who drink at low-risk levels compared to those who abstain completely. Lifetime abstainers and former drinkers are likely different in relation to their perceived health status, health conditions, and services utilization [22, 27].

2.3 Late-Onset Drinking Problems: Reevaluating the Evidence

The literature on alcohol use across the life course has delved extensively into the idea that a subgroup of older problem drinkers develops problems only as they reach older adulthood. Late-onset older adult problem drinkers have been identified using treatment samples [28–30]. Definitions of what constitutes late vary between 40 and 60 years of age [31], and numbers of individuals who fall into the categories of late versus early onset also vary from approximately 15 % late alcohol problems [32] to nearly a 50/50 ratio [29]. People with late-onset alcohol problems have been identified as having less severe problems than early onset (<40 years old) drinkers and are seen as responding to age-related life stresses [31].

Data from epidemiologic studies offer a slightly different picture. Longitudinal research on age of onset across adulthood suggests that new onset of alcohol use disorders is rare after age 40, and that the aging process itself leads to lower vulnerability to new onset disorder and recurrence [33, 34]. One longitudinal study [35] of older adult late-onset alcohol problems did identify a subpopulation of individuals who developed mild to moderate levels of alcohol problems which tended to remit over the course of the study. Moreover, the authors did not find evidence of stress-related drinking in their sample. Earlier studies of so-called late-onset alcohol problems have typically utilized samples of older adults in treatment, relying on self-report of individuals who may have only just recognized that they have a problem with alcohol but who may have previously met criteria for an alcohol use disorder. Alternatively, individuals who enter treatment in older adulthood may be more likely to come from the rare group of individuals who develop an alcohol use disorder late in life. Based on this evidence, it is likely that late-onset alcohol-related problems in older adulthood may represent instances of either recall bias or are the result of a low threshold for problem use (i.e., endorsing a single alcohol-related problem) rather than a specific subtype of alcohol use. Late-onset problem drinkers may be low severity problem users, rather than a separate class based on time of onset.

2.4 Drinking Patterns in Older Adulthood: Common Definitions

From the previous discussion, two general concepts are important to understanding alcohol consumption in the older adulthood. In the general population, alcohol consumption decreases and levels of abstinence increase as older adults reach late life and continue to age in older adulthood. National survey data estimate that approximately 40–45 % of older adults (65+) drank alcohol in the past year depending on the survey and question wording [36, 37]. Nonetheless, alcohol consumption among older adults is heterogeneous, and different patterns of alcohol use in late life carry different risks to health and well-being. Among older adults, different drinking patterns may also have distinct sociodemographic risk factors leading to different threats to health and well-being. Among older adults, like in younger groups, risks associated with alcohol use come from either endorsement of alcohol diagnostic criteria (e.g., drinking and driving) or by exceeding consumption levels (drinking more than two drinks on a single occasion). The life course perspective informs how risk thresholds are developed and interpreted, and it has informed research about the validity and utility of these risk limits when applied specifically to older adults [38, 39].

2.5 Low-Risk Drinking

A majority of older adults who consume alcohol are low-risk drinkers; they consume within guidelines developed by the National Institutes of Health [40]. For individuals younger than 65, low-risk drinking means consuming no more than 4

drinks on any day and no more than 14 drinks in a given week for men, or consuming no more than 3 drinks on any day and no more than 7 drinks in a given week for women. In the case of both men and women 65 and older, drinking guidelines are the same as they are for younger women, not more than 3 drinks on any day and no more than seven drinks per week.

Low-risk thresholds for adults 65 and older are different because older adults have a decreased ability to metabolize alcohol due to changes in lean body mass associated with aging [41]. Specifically, with older age, body fat increases and total water decreases. This leads to higher levels of blood alcohol at the same level of consumption among older adults compared with younger adults [42]. Also, the ability of the liver to metabolize alcohol decreases as one ages. Both of these aging-related processes may lead to greater risk of alcohol consumption among older adults, which in turn provides a rationale for a lower threshold for at-risk drinking among older adults.

The use of a separate older adult “at-risk” guideline has been the subject of some debate among researchers. For instance, Lang and colleagues [38] analyzed data from two national surveys conducted in the United States and England of a subset of older adults who drank over the specific older adult guidelines but within the guidelines for younger adults at a baseline time point. There were no significant differences between individuals who drank within current older adult guidelines and those who drank over older adult guidelines; however, measures of activities of daily living, instrumental activities of daily living, and cognition were worse 3 years later among those who exceeded young adult thresholds of drinking. Similarly, using mixture modeling, a form of exploratory data analysis which identifies sub-populations based on indicator variables, Sacco et al. [43] identified a “moderate risk” class that displayed low likelihood of endorsing alcohol-related problems but a high probability (>.80) of exceeding weekly drinking limits. Individuals in this class had levels of self-rated health and mental health that were not different from individuals who drank at a low-risk level. Together, these studies cast some doubt on the validity of using a lower consumption threshold for older adults. Further research may shed light on whether exceeding this more conservative threshold actually leads to negative health consequences.

2.6 At-Risk Drinking

Although there is ongoing debate and research about what constitutes consumption-based risk, a proportion of older adults are at-risk drinkers. These consumption thresholds are based on exceeding either the day threshold (over 65: >3 drinks any given day) or week threshold (over 65: >7 drinks any given week) [40]. Although terminology may vary by study or clinician, the term “heavy drinking” refers to individuals who drink over the week guideline and so-called binge drinking or “heavy episodic use” is synonymous with exceeding the guideline for within day alcohol use, although the term heavy drinking can also be used to describe people who exceed both thresholds. It is possible that

these different thresholds are important, as they may be associated with specific risks for older adults' health and well-being. For instance, a study by Holahan and colleagues [44] explored longitudinal outcomes for individuals who were moderate drinkers (below the weekly at-risk threshold) but who engaged in heavy episodic drinking (exceeded day threshold). Individuals were first surveyed between the ages of 55 and 65 and followed for 20 years. Episodic heavy drinkers were twice as likely to have died in the 20-year follow-up period compared with those who were not episodic heavy drinkers.

Figure 2.1 displays data on the prevalence of binge drinking and heavy alcohol use from the 2014 National Survey on Drug use and Health (NSDUH) [45], using general population thresholds for these terms. In keeping with life course-related population declines in alcohol use and consumption levels, rates of past-year use, binge alcohol use and heavy alcohol use generally follow a stair step pattern from age 50–55 to age 60 and older. Among those ages 50–54, rates of past 30-day binge drinking were 23.2%, and among those aged 65 and older, 8.9% consumed 5 drinks or more on a single occasion. These rates were low compared to younger adults; rates of at-risk and binge drinking using the older adult specific guidelines would likely be higher. Similarly, prevalence rates for heavy alcohol use in the NSDUH survey are based on a higher threshold of five drinks on five separate occasions in the past 30 days (see Fig. 2.1). Therefore, the rates shown are more conservative than the older adult threshold of seven or more drinks in the past week. Among

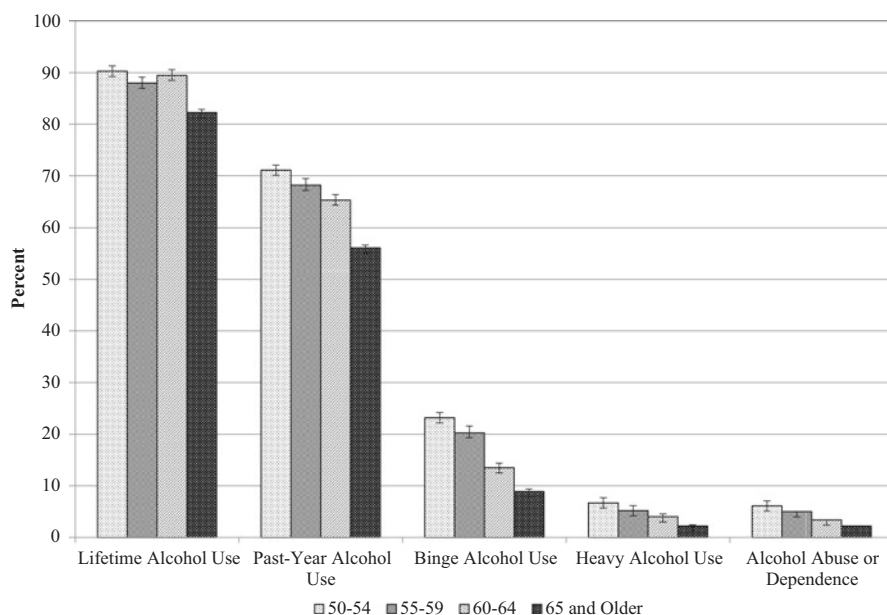


Fig. 2.1 Prevalence of lifetime and past-year alcohol use, at-risk drinking, binge use, and DSM-IV Diagnosis (Data from the 2014 NSDUH [44])

adults over age 50, prevalence of heavy use was 6.7 % for adults aged 50–54, 5.2 % for those aged 55–59, 4 % for adults aged 60–64, and 2.2 % among adults aged 65 and older [45]. Using data from the 2005 and 2006 NSDUH surveys, Blazer and Wu [46] estimated that 17 % of men and 11 % of women aged 50 and older were at-risk drinkers. In this study, these high rates of at-risk drinking are likely accounted for by using the lower threshold of two of more drinks on a given day.

2.7 Problem Drinking, Alcohol Abuse, Alcohol Dependence, and Alcohol Use Disorder

At-risk drinking has largely been defined by level and pattern of consumption. Problem alcohol use and disordered drinking (or having an alcohol use disorder) represent a more severe measure of alcohol-related risk among older adults [47]. A subset of older adults who are at-risk drinkers develop or have preexisting alcohol-related problems from earlier life. This level of alcohol-related harm is usually measured using criteria for alcohol use disorders from the Diagnostic and Statistical Manual of Mental Disorders (DSM) published by the American Psychiatric Association [48, 49]. In recent years, the DSM has undergone a major revision. Previously there were two main diagnoses that represented alcohol problems, *alcohol abuse* and *alcohol dependence*. In the case of alcohol abuse, an individual needed to endorse one or more of the diagnostic criteria in Table 2.1 in the past 12 months. For alcohol dependence, individuals who endorsed 3 or more of the criteria listed in Table 2.1 would meet criteria for a diagnosis.

These two diagnoses were considered hierarchical in that alcohol dependence was considered a more severe diagnosis than alcohol abuse. Moreover, this hierarchical structure was based on the idea that individuals progress from alcohol abuse to alcohol dependence. Research on both of these assumptions about separate diagnoses has little empirical support [50, 51]. Based on this evidence, version 5 of the DSM manual abandoned separate alcohol abuse and alcohol dependence diagnoses, and combined them into a single diagnosis: *alcohol use disorder* (AUD).

The diagnostic criteria for AUD are the same as they were for alcohol dependence and alcohol abuse with two changes. For AUD, the criterion specific to alcohol-related criminal or illegal behavior was removed, and a new criteria focused specifically on alcohol craving was added (see Table 2.1). In addition, criteria have been combined under a unitary AUD (see Table 2.1). An individual has to endorse two or more diagnostic criteria to receive this diagnosis. Additionally, levels of severity can be denoted based on the number of criteria endorsed over the two required (2–3 = Mild; 4–5 = Moderate; 6 or more = Severe) [49].

Because diagnostic measures represent the highest level of severity, rates of DSM-based disorder are lower than rates of binge drinking and heavy drinking. The NSDUH survey estimated a past-year prevalence rate of alcohol abuse or dependence of 6.1 % among those aged 50–54 and 2.2 % among those ages 65 and older. Similar to alcohol consumption measures, a stair step pattern of prevalence was found in the NSDUH, with lower prevalence of disordered drinking with each older

Table 2.1 Alcohol-related disorders: changes from DSM-IV to DSM-5

DSM-5 [48]		
Alcohol abuse	Alcohol dependence	Alcohol use disorder
<div>1. Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home</div> <div>2. Recurrent alcohol use in situations in which it is physically hazardous</div> <div>3. Recurrent substance-related legal problems^a</div> <div>4. Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol</div>	<div>1. Tolerance as defined by either of the following: (a) A need for markedly increased amounts of alcohol to achieve intoxication or desired effect (b) Markedly diminished effect with continued use of the same amount of alcohol</div> <div>2. Withdrawal, as manifested by either of the following: (a) The characteristic withdrawal syndrome for alcohol (b) Alcohol or a closely related substance is taken to relieve or avoid withdrawal symptoms</div> <div>3. Alcohol is often taken in larger amounts over a longer period than was intended</div> <div>4. There is a persistent desire or unsuccessful efforts to cut down or control alcohol use</div> <div>5. A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects</div> <div>6. Important social, occupational, or recreational activities are given up or reduced because of substance use</div> <div>7. Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol</div>	<div>1. Alcohol is often taken in larger amounts over a longer period than was intended</div> <div>2. There is a persistent desire or unsuccessful efforts to cut down or control alcohol use</div> <div>3. A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects</div> <div>4. Craving or a strong desire or urge to use alcohol^b</div> <div>5. Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home</div> <div>6. Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol</div> <div>7. Important social, occupational, or recreational activities are given up or reduced because of substance use</div> <div>8. Recurrent alcohol use in situations in which it is physically hazardous</div> <div>9. Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol</div> <div>10. Tolerance as defined by either of the following: (a) A need for markedly increased amounts of alcohol to achieve intoxication or desired effect (b) Markedly diminished effect with continued use of the same amount of alcohol</div> <div>11. Withdrawal, as manifested by either of the following: (a) The characteristic withdrawal syndrome for alcohol (b) Alcohol or a closely related substance is taken to relieve or avoid withdrawal symptoms</div>

^aCriterion Removed DSM-5

^bCriterion Added in DSM-5

age group in older adulthood. In the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) Survey [52], the prevalence of past-year AUD was similar, but slightly lower, with 1.5 % of older adults (65+) endorsing diagnostic criteria.

Although DSM diagnostic criteria are widely used in clinical settings to measure and document alcohol-related problems, some diagnostic criteria may be less valid for older adults than they are for younger groups [53, 54]. For instance, older adults are less likely to develop tolerance to the effects of alcohol due to age-related physiological changes that inhibit alcohol metabolism. Because of these differences, the tolerance criterion for AUD (Table 2.1; DSM-5 criterion #6) may be less informative in identifying individuals at risk. Using Item Response Theory modeling Kuerbis et al. [47] found the tolerance criterion displayed lower reliability than other criteria in adults aged 50 and older. Conversely, they found that the social and interpersonal problems criterion (Table 2.1; DSM-5 criterion #10) discriminated well between those with alcohol abuse or dependence and those who were not diagnosed. They surmised that given the fact that heavy use is less normative and that social networks of older adults are smaller and more cohesive, they may therefore be more responsive to problematic alcohol use than networks of younger adults or youth.

2.8 Alternative Measures of Risk: Comorbidity in Older Adults

AUD is the most severe manifestation of alcohol-related pathology among older adults, but most alcohol-related harm is not a function of disordered drinking [55]. A number of factors may create risks that are unique to older adults. Moore et al. [56] enlisted an expert panel to develop broader conceptualization of alcohol risk in older adults. Knowledge gained from this study was used to develop a screening measure to assess risk in addition to DSM classification and alcohol consumption [39]. In addition to alcohol consumption, other forms of alcohol related risk were identified: taking medications that may negatively interact with alcohol, alcohol use with medical and psychiatric comorbidity (e.g., high blood pressure or major depressive disorder) where alcohol use may exacerbate the underlying condition, and alcohol use in the presence of somatic symptoms (falls, insomnia, etc.) that may be worsened or caused by alcohol (see Table 2.2).

This approach to alcohol use patterns is the most broadly conceived and consistent with a holistic life course-based approach. It extends the use of older adult consumption limits to a range of aging-specific risk factors. For instance, older adults commonly take medications that interact with alcohol. A recent study of community-dwelling older adults (aged 57+) found that 41 % consumed alcohol regularly and among regular alcohol consumers, 51 % used at least one alcohol interacting medication [57]. An analysis of the Irish Longitudinal Study on Ageing identified a high prevalence of alcohol use (60 %) among individuals taking alcohol interacting medications [58]. Falls are also a common health concern for older adults, and there is evidence of increased risk of falls among older adults who drink more than 14 drinks per week [59].

Table 2.2 Measures of alcohol risk

Alcohol consumption [39]	Alcohol problems [47, 48]	Comorbidity risk [59]
<i>At-risk drinking</i> Men <ul style="list-style-type: none">• Greater than 4 standard drinks per occasion <i>and/or</i>• Greater than 14 standard drinks per week <i>Women and aged +65</i> <ul style="list-style-type: none">• Less than 3 standard drinks per occasion <i>and/or</i>• No more than 7 standard drinks per week	<i>Alcohol use disorder</i> <ul style="list-style-type: none">• DSM-IV Diagnostic Criteria met for Alcohol Abuse or Alcohol Dependence <i>or</i>• DSM-5 Diagnostic Criteria met for an Alcohol Use Disorder <i>Problem drinking</i> <ul style="list-style-type: none">• One or more DSM-IV/DSM-5 criteria endorsed	<i>At-risk</i> Alcohol use with the following comorbidities in the last 12 months: <ul style="list-style-type: none">• Liver disease• Pancreatitis• Gout• Depression• High blood pressure• Diabetes• Sometimes have problems with sleeping, falling, memory, heartburn, stomach pain, nausea, vomiting, and/or feel sad/blue• Often have problems with sleeping, falling, memory, heartburn, stomach pain, nausea, vomiting, or feel sad/blue Alcohol use and medications taken at least 3–4 times per week currently <ul style="list-style-type: none">• Medications that may cause bleeding, dizziness, sedation• Medications used for gastroesophageal reflux, ulcer disease, depression• Medications for hypertension
<i>General population low risk</i> Men <ul style="list-style-type: none">• No more than 4 standard drinks per occasion <i>and</i>• No more than 14 standard drinks per week <i>Women and aged +65</i> <ul style="list-style-type: none">• Less than 3 standard drinks per occasion <i>and</i>• No more than 7 standard drinks per week	<i>No alcohol problems</i> <ul style="list-style-type: none">• No DSM-IV/DSM-5 criteria endorsed	<i>Low risk</i> <ul style="list-style-type: none">• No alcohol interacting medications or comorbidities• Consumption within low-risk drinking guidelines for older adults
<i>Older adults (65+) low risk</i> <ul style="list-style-type: none">• No more than 3 standard drinks per occasion <i>and</i>• No more than 7 standard drinks per week		
<i>Nondrinking/Abstinence</i> <ul style="list-style-type: none">• Has not consumed alcohol in the past year <i>or</i>• Has not consumed alcohol in lifetime		

Because this measure of alcohol risk focuses more broadly on unhealthy drinking among older adults, prevalence rates of at-risk consumption using these benchmarks are higher. In a medical clinic intervention study targeted at older adults (60+), Moore et al. [60] identified a rate of at-risk drinking of 34.7 %. This prevalence rate was not based on at-risk consumption only (22.3 %), but also drinking with concurrent medication use (21.2 %) and/or alcohol use with medical or psychiatric comorbidities (21.5 %). In a study of alcohol consumption at a continuing care retirement community [61], rates of at-risk drinking that were also higher, 46.5 % for consumption-based risk, 39.4 % for disease comorbidity, 62 % for potential medication interaction, and 40.8 % for symptom comorbidity.

Having a broader measure of unhealthy drinking among older adults has both advantages and challenges from the standpoint of understanding patterns of drinking. Clinically, this approach offers the potential to screen and provide education to individuals who may experience alcohol-related consequences as a result of comorbidity and medication use. Like the use of lower thresholds for consumption among older adults, it is unclear the extent to which drinking at low levels with medication that interaction potential or drinking with comorbidities leads to negative health outcomes among older drinkers. From the standpoint of public health, it is valuable to screen and provide education about these risks as a means of helping older adults make educated decisions about drinking and their health. At the same time, research should attempt to quantify the extent to which low-risk consumption among older adults (<4 drinks at an occasion and no more than seven drinks in a week) combined with comorbidity (e.g., depressive symptoms) or medication interactions (e.g., propranolol) leads to later consequences for older drinkers. It is possible that actual negative outcomes are rare.

2.9 Correlates of At-Risk and Disordered Drinking Among Older Adults

Alcohol use follows a continuum of risk from abstinence to severe alcohol use disorder. Even though overall risk in the older adult population is lower than in younger age groups, subpopulations of older adults are at-risk drinkers or have an AUD. Research findings suggest that a number of sociodemographic factors are associated with different drinking patterns and may be useful in screening and targeting interventions.

At-risk drinking and AUD are more common among the so-called young-old, and as noted earlier in this chapter, risk declines with advancing age. For example, Blazer and Wu [46], in their study of NSDUH data, found that both at-risk drinking and binge drinking were more common among those adults 50–64 years old compared with those 65 and older. Sacco et al. [62] identified that rates of at-risk drinking among women 60 and older (20.5 %) were lower than rates of at-risk drinking among men (29 %), using gender-specific general population thresholds (i.e., 14 drinks week or <5 drinks on one occasion for men and 7 drinks per week and <4 drinks on one occasion for women). This study also found that older age was

associated with decreased odds of both at-risk drinking and AUD among both men and women 60 and older. These differences may be a function of age and gender differences in overall past-year consumption (i.e., risk drinking rates are lower because past-year drinking rates are lower). NESARC survey findings suggest that overall rates of past-year alcohol use are lower in older age groups and among women [36]. In the NESARC survey, men were 83 % more likely to be past-year alcohol consumers than women. Analyzing Medicare data, Merrick and colleagues [63] found that adults aged 65–70 were more likely to consume at unhealthy levels and more likely to binge drink compared to peers in older age groups.

Race and ethnic differences are also important in understanding different alcohol use patterns, but complexities are important in understanding these relationships. Blazer and Wu [46] found that African American racial identification was associated with higher odds of past-month binge drinking, compared with White respondents, in female past-year alcohol consumers only, but this relationship was not present when considering all women over age 50. This relationship is likely a function of differences in nondrinking status by race. Older African American women are less likely to be current drinkers [64], but among women who drink, they are more likely to binge drink. Other research is consistent with the idea that African American older adults have higher rates of both nondrinking status [36, 65] and Alcohol Use disorders [66] and consequences. Sacco et al. [43] analyzed classes of consumption and problem-based risk among older adults, and found that older African Americans were less likely to be in a moderate risk class (based primarily on consumption), but marginally more likely to be in a high-risk class (based on endorsement of alcohol problems). Data from the Medicare Current Beneficiary Survey support the idea that at-risk drinking is less common in the total population of older African Americans, but more common among older African American current drinkers [62]. Differences in alcohol consumption between African Americans and Whites may be explained by greater participation in religious denominations that proscribe alcohol use among older African Americans [64].

Education and income are also associated with alcohol consumption patterns that may reflect class differences in attitudes about drinking. Older adults with higher levels of income and education are more likely to display at-risk drinking patterns [63]. Some research studies have identified gender differences in these patterns with less educated women being more likely to take part in binge drinking, while more highly educated men were binge drinkers [46]. Findings regarding income are equivocal. Overall rates of at-risk drinking are higher with greater education and income, but when only current alcohol consumers are considered, findings are reversed or differences are not seen [63]. Older adults with lower levels of education display higher likelihood of being in a high-risk drinking class [43]. Data from the NSDUH survey found that 36.9 % of adults over 50 who did not finish high school used alcohol in the past year, compared with 55.4 % of those with a high school education and 71.5 % of those who attended college [37]. It is likely that educated older adults are more likely to be at-risk drinkers because they are more likely to drink; however, but if individuals are past-year drinkers, those with less education are more likely to be at-risk drinkers [46]. Among older adults with higher levels of

education and income, alcohol use may be more normative, leading to greater risk in the population of older adults. Among alcohol users, this risk is reversed.

One unequivocal finding regarding drinking patterns and associated risks among older adults relates to marital status among older adults. Those who are divorced, widowed, or separated may be at higher risk for at-risk drinking and AUD. In a national survey, adults over 50 who were formerly married (widowed, divorced, or separated) were 50 % more likely to be at-risk drinkers and 60 % more likely to be binge drinkers than currently married persons [67]. Again, it should be noted that some of the risk associated with divorce in particular may arise from the idea that older adults who are divorced are 24 % more likely to current drinkers than currently married persons [36]. Essentially, at-risk drinking can only happen if an individual is currently consuming alcohol, so differential rates of at-risk drinking may be explained in part by differential rates of current use. Nonetheless, risk associated with being divorced, separated, or widowed is present even in samples of current drinkers only, but findings regarding gender differences in this relationship are mixed. Some studies have found that being formerly married or divorced increases likelihood of at-risk and binge drinking among men only [46], but other studies have identified greater odds of at-risk drinking in both men and women [62].

2.10 Conclusions and Implications

To understand the ways in which older adults consume alcohol in late life, both aging-related processes and lifelong factors should be considered. Although older adulthood as a life stage is a period of declining risk related to consumption, age-related changes in health mean that even low levels of consumption can be considered risky. Moreover, older adults display heterogeneity in drinking patterns from nondrinking, to at-risk and binge drinking and even AUD. To understand patterns of drinking among older adults, one must first consider whether older adults currently drink at all and whether this is a change that has occurred as they reach older adulthood.

Alcohol use in the aging population has been defined through various thresholds of risk. Each approach brings certain advantages and problems. Using alcohol-related disorders as a benchmark misses many older adults who may experience alcohol-related consequences to their health and well-being even though they do not meet criteria for disordered drinking. More conservative measures of alcohol risk may identify at-risk drinking in those for whom alcohol use may never compromise their health. In the future, research should continue to explore more precise and individualized ways of quantifying risk based on alcohol consumption and other health factors. Even so, clinical practitioners in geriatrics and gerontology will have the task of educating individual older adults about their alcohol risk while recognizing that, among light to moderate drinkers, the level of risk is uncertain.

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