

Introduction to the Canadian Coalition for Seniors' Mental Health (CCSMH) Guidelines on Substance Use Disorders Among Older Adults

ccsmh.ca



Introduction to the Canadian Coalition for Seniors' Mental Health (CCSMH) Guidelines on Substance Use Disorders Among Older Adults

Prepared by the CCSMH Substance Use Disorders Guidelines Steering Committee (listed in Appendix A)

The Substance Use and Addictions Program (SUAP) of Health Canada provided a grant to the Canadian Coalition for Seniors' Mental Health (CCSMH) to create a set of four guidelines on the prevention, assessment, and treatment of alcohol, benzodiazepine, cannabis, and opioid use disorders among older adults (defined here as age ≥ 65 years). Details of the methodology used to create the guidelines can be found in a separate document at ccsmh.ca.

This specific document is intended to provide an introduction to and overview of issues of relevance that are common across substance use disorders among older adults.

Current projections estimate that the number of individuals over the age of 60 worldwide will reach two billion by the year 2050, representing 22% of the overall population (Beard et al., 2012). With this increase in older population, the Canadian Centre on Substance Use and Addiction (CCSA, 2018) predicts a significant increase in the number of older Canadians who use drugs and alcohol. In the CCSA's report on substance use and aging, Vaccarino et al (2018) make the following recommendations and a "Call to Action":

- There is a need for increased awareness of substance use in older adults among health care providers, caregivers, and older adults.
- There is a need for more education and training for health care professionals and students on substance use disorders in older adults.
- There is a need for guidelines and recommendations on substance use in older adults tailored to the unique nature of this demographic.
- There is a need to improve the availability and accessibility of age-specific substance use disorder treatments and individualized care.
- Guidelines and treatments for older adults need to be communicated to health care professionals and the general public.

Definitions

Substance Use Disorder (SUD) as defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, American Psychiatric Association, 2013) refers to a problematic pattern of substance use leading to clinically significant impairment or distress, as manifested by at least two of the following criteria occurring within a 12-month period. Among older adults some of these criteria may be modified by the aging process or changes in social roles (e.g., retirement from work), resulting in more subtle presentations (Kuerbis et al., 2014).

- The substance is taken in larger amounts or over a longer period of time than intended.
- Persistent desire or unsuccessful efforts to cut down or control substance use.
- A great deal of time is spent in activities to obtain substances, use them, or recover from their effects.
- Craving, or a strong desire or urge to use a substance.
- Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home.
- Continued use of the substance despite persistent or recurrent social or interpersonal problems caused or exacerbated by their effects.

- Important social, occupational, or recreational activities are given up or reduced because of substance use.
- Recurrent substance use in situations in which it is physically hazardous.
- Substance 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 drug use.
- Tolerance as defined by either a need for markedly increased amounts of the substance to achieve intoxication or desired effect or a markedly diminished effect with continued use of the same amount of the substance (note: criterion not felt to be met for an individual taking the drug under medical supervision, as prescribed).
- Withdrawal is manifested by either characteristic withdrawal symptoms (i.e., autonomic hyperactivity, hand tremor, insomnia, nausea or vomiting, transient sensory hallucinations or illusions, psychomotor agitation, anxiety, and/or seizures) or use of the substance (or a closely related substance such as alcohol) to relieve or avoid withdrawal symptoms.

Table 1 describes special considerations for older adults relating to the above criteria (see below for Challenges in Detection).

The American Society for Addiction Medicine (ASAM) defines **addiction** as “a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual’s life experiences. People with addiction use substances or engage in behaviours that become compulsive and often continue despite negative consequences.”

Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases. (ASAM, 2019)

The World Health Organization defines **substance misuse** as “the use of a psychoactive substance in a way that increases the risk of harmful consequences for the person misusing the substance”. Substance misuse includes both the use of a prescription medication by someone other than the person to whom the medication is prescribed or in a manner or for a purpose contrary to what is medically intended (WHO, 2015).

Epidemiology

Substance Use Disorder (SUD) among older adults have been termed “an invisible epidemic” (Royal College of Psychiatrists, 2015). An editorial in the British Medical Journal underlined the growing magnitude of substance misuse among older adults (Rao and Roche, 2017). Data from the 2012 Canadian Community Health Survey–Mental Health (Statistics Canada 2012), suggested that approximately 21.6% of Canadians (about 6 million people) would meet criteria for a SUD during their lifetime. Alcohol at 18.1% was the most common substance used by people who met the criteria for a SUD. Data from the Canadian Alcohol, Tobacco, and Drugs survey indicates that the frequency of daily or almost daily alcohol use peaks in the 65–74 year age group and is almost three times as high as the frequency in the 15–54 year age group (Statistics Canada, 2016). The prevalence of past-year use of sedatives including benzodiazepine receptor agonists (BZRAs) is higher in older than younger adults (14.6% versus 8.3%) with use particularly high among older women (18.9% compared to 10% among older men). Lifetime prevalence of Cannabis Use Disorder was 2.6% according to the Canadian Community Health Survey–Mental Health (Statistics Canada, 2012). The proportion of older adults using cannabis in Canada was 4% in early 2018 and therefore relatively low prior to its legalization in October 2018. This rose in the first quarter of 2019 following legalization to 4.4% (Statistics Canada, 2019). However, the proportion of people aged 45-64 using cannabis over the same period also rose from 8.8% to 14%.

Current estimates indicate that the number of older adults who develop a SUD will rise in the coming years as the baby boomer generation ages. This is driven by both greater rates of lifetime drug use among baby boomers and the size of that generation (Colliver et al, 2006). It is important to consider the entire lifespan of older adults and the social context of the time in which they lived, as this will impact their attitudes towards substance use in later life.

Risk Factors

There are several risk factors for the development of a SUD among older adults. These include the effects of aging, gender differences, physiological and psychosocial changes, cognitive impairment, stigma, loneliness, prescription practices, and elder abuse. Genetic factors, where genes can account for up to 50% of an individual’s risk of becoming addicted, are still important to consider in this age group. It should be noted that addiction can only manifest following exposure. Subsequent to exposure, the substances of concern can then alter the brain to increase vulnerability to further use. There is also evidence that many psychosocial factors contribute. For example, adverse childhood experiences (e.g., abuse or

Table 1 Criteria for Substance Use Disorder (SUD) and Considerations for Older Adults

DSM-5 CRITERIA FOR OUD	CONSIDERATION FOR OLDER ADULTS
A substance is taken in larger amounts or over a longer period of time than intended.	Cognitive impairment can prevent adequate self-monitoring. Substances themselves may more greatly impair cognition among older adults than younger adults.
There is a persistent desire or unsuccessful efforts to cut down or control substance use.	It is the same as for the general adult population.
A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.	Consequences from substance use can occur from using relatively small amounts.
There is craving, or a strong desire or urge to use the substance.	It is the same as for the general adult population, but older adults with entrenched habits may not recognize cravings in the same way as the general adult population.
There is recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home.	Role obligations may not exist for older adults in the same way as for younger adults because of life-stage transitions, such as retirement. The role obligations more common in late life are caregiving for an ill spouse or for other family members, such as a grandchild.
There is continued use of the substance despite persistent or recurrent social or interpersonal problems caused or exacerbated by their effects.	Older adults may not realize the problems they experience are from substance use.
Important social, occupational, or recreational activities are given up or reduced because of substance use.	Older adults may engage in fewer activities regardless of substance use, making it difficult to detect.
There is recurrent substance use in situations in which it is physically hazardous.	Older adults may not identify or understand that their use is hazardous, especially when using substances in smaller amounts.
Substance 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 drug use.	Older adults may not realize the problems they experience are from substance use.
Tolerance as defined by either a need for markedly increased amounts of the substance to achieve intoxication or desired effect or a markedly diminished effect with continued use of the same amount of the substance (note: criterion not felt to be met for an individual taking the drug under medical supervision).	Because of the increased sensitivity to substances as they age, older adults may seem to have lowered rather than increased tolerance.
Withdrawal is manifested by either characteristic withdrawal symptoms or use of the substance to relieve or avoid withdrawal symptoms.	Withdrawal symptoms can manifest in ways that are more subtle and protracted. Late-onset substance users may not develop physiologic dependence or non-problematic users of medications such as benzodiazepines may develop physiologic dependence.

Adapted from Kuerbis, A., et al. (2014). Substance Abuse Among Older Adults. *Clinics in Geriatric Medicine*, 30(3), 629-654.

neglect) can underly addiction (Dube et al., 2003). Environmental factors such as stress, social networks, isolation, loneliness, and poverty play additional roles and can be particularly acute for older adults. In addition, deficiencies in our health care systems, polypharmacy, over-prescribing, and a lack of awareness among older adults of the risks associated with drug use can contribute to SUDs.

Challenges in Detection

Substance use disorders often go underdiagnosed and undertreated due a lack of recognition of this issue by health care professionals, who may attribute signs of substance use to common aging processes (CCSA, 2018). Barriers to the detection of SUDs among older adults are magnified by ageism, lack of research on SUDs among older adults, and a general propensity of government policies on this issue to focus on younger adults.

There are a number of challenges involved in detecting and diagnosing a SUD in older adults (Table 2). DSM-5 criteria for SUDs include a number of criteria that measure impairment based on the impact of substance use on fulfilling social or interpersonal roles or performance in areas that are not always applicable to older adults, such as at work, school, or driving.

SUDs can also be overlooked because of the increased presence of coexisting medical morbidities whose symptoms may mask SUDs in older people.

Effects of Aging

While aging in itself is not a risk factor for the development of SUDs, it does increase vulnerability to harm due to higher rates of comorbidities, frailty, and decreased physiological reserves (CCSAM, 2018). There are a number of age-related changes that can either complicate the detection or heighten potential risks for adverse outcomes such as falls, cognitive impairment, and loss of independence. Age-related changes that impact metabolism can increase the sensitivity of the central nervous system to these substances and the duration of their effects.

Both pharmacodynamic (how drugs affect the person) and pharmacokinetic (how the body affects the drugs) changes require consideration. Aging is associated with a number of alterations in the handling and response to the agents covered in these guidelines (McLean and Le Couteur, 2004). While there is uncertainty about the significance of age-related changes in liver metabolism, older persons tend to have higher blood alcohol levels relative to younger persons after drinking a standard amount of alcohol because of reduced gastric metabolism and volume of distribution (Caputo et al, 2008; Ferreira and Weems, 2008; Lehman and Fingerhood, 2018). Older persons are both more sensitive to the effects of BZRAs and can experience a longer duration of action due to age-related pharmacokinetic changes in drug metabolism and distribution (Griffin III et al, 2013; Schroeck et al, 2016). Unfortunately, there is little evidence about the specific effects of aging on cannabinoid pharmacology and toxicity (van den Elsen et al., 2014; Beauchet, 2018). As for opioids, there is enhanced sensitivity with aging coupled with important age-related alterations in opioid metabolism and excretion that can lead to prolonged effects (Naples et al., 2016). In aggregate, these changes reinforce the old adage that, if used, you should “start low and go slow” with these substances.

Heterogeneity of The Older Adult Population

Older persons differ in their backgrounds, beliefs, preferences, circumstances, and aspirations. You are no less an individual as one grows old. It also has to be recognized that this is a stage of life that can extend for thirty or more years. While abilities decline generally and health care needs increase with aging, there is substantial variability in health status, the balance between vulnerability (frailty) and resiliency, and the prognosis of older persons. Many show marked differences between their chronological (i.e., how old the calendar says they are) and biological (i.e., how old they seem) ages (Lowsky et al., 2014; Hadley et al., 2017; Mitnitski et al., 2017). This variability is driven by features such as an individual's particular genetic makeup, socioeconomic characteristics, where they live, and behavioural factors such as diet, physical activity, social engagement and support, level of stress (and stress response), and smoking status (Lowsky et al., 2014). Many chronic conditions including dementia and the occurrence of multiple morbidities (i.e., the co-occurrence of diseases) become more common as individuals age, as does chronic pain (Turcotte and Schellenberg, 2007; Roberts et al., 2015; Public Health Agency of Canada, 2017). Treatments for comorbidities may increase the risk of using the substances reviewed in these guidelines. Disability also becomes more common in older age (Statistics Canada, 2013). All of these factors highlight the necessity of taking a personalized approach in establishing goals of care with an older person.

Role of Stigma

Negative attitudes and assumptions about older people and/or about people who use drugs can have a major impact on a person's quality of life and can leave a person feeling fear, anger, shame, hopelessness, or devalued. This can both prevent people from getting help and prevent clinicians from recognizing that help is needed (CCSA, 2017).

Substance use disorders and problematic substance use are frequently misunderstood as not being present amongst the older adult population or not worth treating. Because of this, conversations about substance use must employ a non-judgmental and non-ageist approach that highlights the experiences and values of the individual. Stigma and stereotyping can be seen in action when assumptions are made, whether consciously or not, about the level of care that an older person is entitled to, the value of an older life, or the reasons that a person is living life the way that they are. Stigma can be societal or self-imposed. It is at play when symptoms of problematic substance use are assumed to be nothing more than symptoms of getting old.

In their recent report on substance use and aging, the CCSA notes that SUDs often go undertreated and underdiagnosed due to the stigma experienced by older adults and the lack of recognition of this issue by health care professionals, who may attribute signs of substance use to part of the aging process (CCSA, 2018).

Health care providers must challenge themselves and each other to overcome assumptions and stereotypes in order to ensure that they are providing the best possible care for their patients. Stigma can be reduced by choosing words carefully, and being open, willing, and able to initiate sometimes difficult conversations about substance use with older patients.

Indigenous Peoples

The Indigenous population of Canada are comprised of three major groups: Indian (historical government terminology), Métis, and Inuit. They represent 4.9% of the total population (Statistics Canada, 2016). Indigenous people in Canada experience poorer health, on average, than non-Indigenous people and have incurred a disproportionate burden of harms related to substance use (Urbanowski, 2017). These health inequities result from the legacy of colonization which led to displacement and disconnection from communities, families, and culture (Adelson, 2005). Information specifically aimed at Indigenous older adults with substance use problems is virtually non-existent. One notable exception is the Kanawahke reserve in Quebec where alcohol is rated as one of the top three concerns for Aboriginal seniors in a community needs assessment (Spencer, 2000).

Indigenous traditions and values have informed a variety of treatment approaches that facilitate the healing process in which storytelling, teaching circles, and various ceremonies such as Sun Dances, sweats, pipe ceremonies, and medicine lodges signify the role of spirituality and reconnection to the natural environment (Poonwassie & Charter, 2001). Similarly, the role of the tribal elder is highly valued. An elder is viewed as someone who is rich in the history and traditions of their culture with enough life experience to make this understanding relevant to others. The recent emphasis on the benefits of culture-oriented treatment approaches reflects the recognition that treatment must be tailored to the needs of the individual (Poonwassie & Charter, 2001). Rowan et al (2014) carried out a systematic review of 19 studies which evaluated the evidence of the effectiveness of Indigenous culture-based interventions for SUD, often integrated with Western approaches. They concluded that culture-based interventions were associated with positive improvements in health and well-being and reduced substance use. They also recommended further study, citing previous relatively weak study designs. *Honouring Our Strengths: A Renewed Framework to Address Substance Use Issues Among First Nations People in Canada* (Health Canada, 2011) provides a culturally oriented approach.

Unfortunately, data or studies related specifically to substance use in older Indigenous adults is lacking. This indicates the lack of relevant research and represents an area of need when creating culturally adaptable guidelines. We were unsuccessful in engaging representatives of Indigenous communities in the development of these guidelines but hope to engage Indigenous communities in the knowledge translation phase of the project with the goal of making the recommendations relevant to older adults within this population. The use of these guidelines within Canada's indigenous communities should be openly discussed, negotiated, and modified as needed to ensure that cultural alignment and integrity is respected.

Gender Differences

McHugh et al (2018) have recently reviewed and summarized the literature on sex and gender differences in SUDs among people of all ages. They note that the gender gap, characterized by greater prevalence of SUDs in men, is narrowing. The authors suggest that gender (i.e., environmentally and socioculturally defined roles for men and women) contributes to the initiation and course of substance use and SUDs. They also emphasize that biological sex differences are evident across multiple systems including brain structure and function and endocrine and metabolic functions. Adverse consequences associated with SUDs are often more severe in women. They also note, however, that treatment outcomes are similar in men and women. They highlight the need for more research to elucidate sex and gender differences.

Gender differences are also apparent in prescribing patterns (e.g., higher rates of prescriptions for BZRAs among women) and in sensitivity to the adverse effects of alcohol among women. These differences were considered in the development of these guidelines.

Screening

In screening for SUDs, care is required when applying diagnostic criteria to older adults. The use of comprehensive geriatric assessment—where the functional ability, physical health, cognition, mental health, and socioenvironmental circumstances of an older adult are assessed in order to develop a coordinated care plan—should be considered when possible. Issues such as polysubstance use, bereavement, and isolation should be taken into account as well. Understanding the differences between therapeutic and non-therapeutic use can be difficult to separate in older adults and this can have an impact on the screening and assessment of SUDs. Clinicians often overlook the possibility of problematic alcohol and other substance use among older adults. Symptoms may be attributed to concurrent health problems rather than substance use. There are a number of barriers to detecting such use in this population (Koh et al., 2016). Screening tools and processes should be tailored to older adults and take into account their particular characteristics, including concerns about stigma (Conn, 2018). Screening for substance use should be carried out during all hospitalizations, routine health examinations, when a person is experiencing a major stressful life event or change, and/or when various physical or mental health problems occur. A range of tools are available to screen for both single substance and multiple substance use issues.

It is important to note that many individuals will have problems with multiple substances concurrently. General screening tools include the Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST), the Prescription Drug Use Questionnaire Patient Version (PDUQp), and the Drug Abuse Screening Test (DAST-10). Taylor and colleagues (2014) provided an in-depth analysis of the various screening tools available for problematic alcohol use in older adults. Tools designed for older adults include the Short Michigan Alcohol Screening Test–Geriatric (SMAST–G) and the Senior Alcohol Misuse Indicator (SAMI) (Blow et al, 1998; Lum, 2005). Other tools include the CAGE screening tool and the Alcohol Use Disorders Identification Test, which was developed by the World Health Organization (WHO). Each of the four CCSMH guideline documents will provide more information on screening for alcohol, BZRA, cannabis, or opioid use.

Screening for inappropriate use of prescription drugs requires questions that focus on adherence, prescriptions from multiple physicians, where and when prescriptions are filled, and the use of over-the-counter and alternative medications (Conn, 2018). Simoni-Wastila and Yang (2006) listed a number of additional warning signs that could indicate inappropriate use of prescription drugs, including the following: excessive worry about whether psychoactive medications are working or about the supply and timing of medications; detailed knowledge about or attachment to a particular drug; complaints about other physicians who refuse to write prescriptions; excessive daytime sleepiness; changes in personal grooming and hygiene; and social withdrawal. In addition, a variety of physical symptoms in an older adult should prompt screening for substance use as listed in [Table 2](#) (Centre for Substance Abuse Treatment, 1998).

Table 2: Physical Symptom Screening Triggers (Centre for Substance Abuse Treatment, 1998)

- Sleep complaints; observable changes in sleeping patterns; unusual fatigue, malaise, or daytime drowsiness; apparent sedation (e.g., a formerly punctual older adult begins oversleeping and is not ready when the senior centre van arrives for pickup)
- Cognitive impairment, memory or concentration disturbances, disorientation, or confusion (e.g., family members have difficulty following an older adult's conversation, the older adult is no longer able to participate in the weekly bridge game or track the plot on daily soap operas)
- Seizures, malnutrition, muscle wasting
- Liver function abnormalities
- Persistent irritability (without obvious cause) and altered mood, depression, or anxiety
- Unexplained complaints about chronic pain or other somatic conditions
- Incontinence, urinary retention, difficulty urinating
- Poor hygiene and self-neglect
- Unusual restlessness and agitation
- Complaints of blurred vision or dry mouth
- Unexplained nausea and vomiting or gastrointestinal distress
- Changes in eating habits
- Slurred speech
- Tremor, poor motor co-ordination, shuffling gait
- Frequent falls and unexplained bruising

Assessment

Comprehensive assessment of older adults is essential. This should include a full history of substance and medication use, comorbid medical and psychiatric illness, social and family history, functional assessment, mental status examination including cognitive screening, and a physical examination. Investigations should be carried out according to the clinician's best judgement and may include blood and urine tests and neuroimaging if there is a history of recent head injury or evidence of cognitive impairment. The Royal College of Psychiatrists (2015) information guide on substance misuse in older people provides an excellent overview of the optimal assessment process. Older adults frequently have multiple overlapping medical conditions, which can create complex diagnostic challenges. Symptoms may be attributed to underlying medical illness or illnesses rather than substance use or misuse. The co-occurrence of cognitive impairment or dementia and excessive use of alcohol and/or other substances is not infrequent. There is also a strong association between mood and anxiety disorders and SUDs. Atypical presentations may include isolation, failure to thrive, loss of interest or motivation, weight loss or malnutrition, delirium related to withdrawal, falls, bruising, urinary incontinence, or increasing frailty. It is always important to consider adverse drug effects with any presentation of an older patient.

A biopsychosocial approach that integrates multiple potential factors that can contribute to the development of a SUD is favoured (Skewes and Gonzalez, 2013). In addition to biological factors such as genetics, this model incorporates psychological factors such as personality and temperament, conditioning and belief systems, and social factors such as family dynamics, influence of peers, and substance use among intimate partners. The model can also incorporate environmental influences, ethnicity, and culture. A comprehensive assessment will consider all of these potential influences.

Transitions in Care

Transitions of care refer to changes in the level, location, and/or providers of care as the person moves through the health care system (Kim and Flanders, 2013). Because of their often complex health needs older people are particularly likely to experience these transitions. Examples would include being admitted to hospital or moving into a long-term care facility. Diversity within the older adult population due to factors such as health status, comorbidities, and prognosis can impact the experience of these transitions of care. While transitions are often necessary for the provision of required care, they are also times when stability is interrupted with negative consequences. For example, abruptly stopping at-risk consumption of alcohol when admitted to hospital could precipitate a withdrawal syndrome while a BZRA started for short-term use while in hospital can sometimes lead to long-term use in the community. Personalized risk assessments, medication reconciliation (i.e., consistent medication communication and administration across transitions of care), engagement of the older person and their family, and the timely and accurate exchange of information among those involved in the care of the older person are

essential at these transition points. One of the challenges when multiple providers are involved is the assumption that another party is looking after an issue such as SUD screening. Unless it is explicit that a particular health issue is being addressed, a safer assumption for the clinician is that no one else has and they should.

A specific transition that may occur for older persons with a SUD would be a referral to a specialized treatment program. Primary care clinicians are expected to be able to screen for a SUD or assess suggestive symptoms of one and perform a brief assessment followed by office-based interventions if detected (SAMHSA, 1997). Depending on their interests and expertise, some may provide more in-depth interventions if the initial approach is unsuccessful though this typically entails a referral to a specialized treatment program. Referral to one of these programs is always an option if the situation deteriorates over time. Primary care clinicians should be familiar with locally available treatment resources for older persons diagnosed with a SUD though their responsibility to the older person would not end with their entry into a specialized treatment program. The clinician would likely remain involved in managing the older person's other health issues by collaborating with the treatment team, encouraging the continued participation of the older person in the program, and following the older person after treatment termination in order to monitor progress and help prevent relapse.

Driving and Substance Use

Motor vehicle collisions (MVCs) are the leading cause of accidental deaths in the 65–74 year age group in Canada (Public Health Agency of Canada, 2015). Falls and vehicular collisions together account for approximately 91% of all injury-related hospital admissions among older adults.

It has long been established that driving under the influence of alcohol increases the risk of accident involvement. A meta-analysis of benzodiazepine use and driving found that benzodiazepine users were at a significantly greater risk of MVCs compared to non-users with an odds ratio of 1.6 (Rapoport et al., 2009). People taking “z-drugs” such as zopiclone and zolpidem are also at increased risk of MVCs (Gunja, 2013). In a systematic review of medication use and collision risk, 15 medications were associated with an increased risk of MVCs, including opioids and sedative-hypnotic medications (Rudisill et al., 2016).

A recent study examining risk factors for older adults driving under the influence of alcohol or drugs reported that of past-year users, 14.5% of those aged 50–64 and 6.2% of those in the over 65 age group self-reported impaired driving (Choi et al., 2014). In both groups, the likelihood of driving under the influence significantly increased in the presence of higher frequency alcohol use, binge drinking, marijuana use, and a major depressive episode.

Distinguishing the risk of ongoing use versus first-time use of medication could be useful in establishing potential harm in older adults. An analysis of sedative-hypnotic vehicle crash data (including benzodiazepines and related “z-drugs”) showed that new users of sedatives were at an increased risk of collision compared to non-users (Hansen et al., 2015). These studies suggest the need for additional approaches to prevent older adults from driving while under the influence, including the challenging issue of when to invoke mandatory reporting to the authorities, as is required in many jurisdictions. For those who have lost their driving licence due to substance misuse, Australian guidelines require evidence of remission of substance use and absence of cognitive changes when considering applications for re-licensing (Ogden et al., 2018). The Canadian Medical Association Driver's Guide (9th edition) provides useful information for physicians on determining medical fitness to operate motor vehicles with specific reference to medications and non-medicinal substances, as well as the impact of aging and cognitive impairment on driving (Canadian Medical Association, 2017).

Treatment, Service Delivery, and Resources

There is evidence that health care providers lack knowledge and awareness about SUDs (CCSA, 2018). An Australian study on the role of general practitioners found insufficient use of screening tools, provision of counselling, and referral to specialized services (Marshall & Deanne, 2004). Organizational factors such as a lack of clinical guidelines, suitable detection tools, and training opportunities for health care professionals in older adults with SUDs function as barriers to identifying SUDs in this population (CCSA, 2014). The gap that exists between physician education and clinical need is a startling reminder of the work that is required in order to prepare health care trainees and professionals on the detection, prevention, and care of older adults with SUDs. Polydorou and colleagues (Polydorou et al., 2008) call attention to the need for clinically relevant and interactive training to minimize undertreatment due to misdiagnosis or non-detection. The Mental Health Commission of Canada released guidelines for comprehensive mental health services for older adults in Canada in 2011. They included a set of

values and principles both at an individual and a system level, as well as facilitators for a comprehensive system, which are listed in Table 3. The model also included a map that outlines the full array of services in an optimal system. This set of principles, values, and necessary services is highly relevant for older adults with SUDs.

Table 3: Guiding Values and Principles (From Guidelines for Comprehensive Mental Health Services for Older Adults in Canada, Mental Health Commission of Canada, 2011)

INDIVIDUAL LEVEL

- respect and dignity
- self-determination, independence, and choice
- participation, relationship, and social inclusion
- fairness and equity
- security

SYSTEM LEVEL

- accessibility
- person and relationship-centred
- recovery focused
- support for family/caregivers
- education and support for service providers
- diversity and cultural safety

- comprehensive
- integrated, flexible, and seamless
- mental health promotion
- evidence informed

FACILITATORS OF A COMPREHENSIVE SYSTEM

- academic centres
- cultural safety
- diversity
- caregivers as vital partners in care
- support for service providers
- service delivery models
- inter-sectorial partnerships / collaboration
- use of technology
- application of knowledge and evidence

In the CCSA (2018) report on substance use and aging a description of the treatment of SUDs was provided by Blow (2018). He notes that as the number of older adults with SUDs increases it will become particularly important for treatment centres to offer age-specific services. He also emphasizes that older adults face societal barriers as well as unique complexities in their physical and mental health, all of which make it difficult to identify and treat SUDs in this population. A variety of patient-centred approaches and techniques can be incorporated into clinical practice to help identify, refer, and treat substance use problems in older adults. Although age-specific services can lead to better treatment outcomes in older adults, the availability of such services in Canada and the United States is limited, especially in rural and remote areas. As in other areas of health care, telemedicine can provide expertise to people in underserved regions.

Older adults seeking treatment for problematic substance use often face difficulties navigating the various treatment services and supports (Blow, 2018). Primary care providers have limited time and resources; therefore, it is important that they are knowledgeable about available resources within their community and are prepared to make effective referrals to them. Many older adults find it difficult to acknowledge their problematic substance use. Clinicians can assist by informing their older patients about age-related changes in metabolism and drug/alcohol interactions. It is also important to educate older adults about the risk of associated problems such as falls, accidents, cognitive impairment, and depression. Some individuals may require a residential treatment setting or an inpatient hospital admission.

A number of studies suggest that older adults do best when offered age-appropriate care with clinicians who understand their unique issues (Kuerbis et al., 2014). The program should be individualized, easily accessible, and open to the involvement of the older adult's family when appropriate. Table 4 lists a variety of preferred treatment approaches for older adults (Blow, 2018).

There is evidence that both cognitive behavioural therapy and supportive therapy can be helpful for older adults.

Table 4: General Preferences of Older Adults Regarding Services

- | | |
|--|---|
| ■ Structured but flexible programs | ■ Group-based treatment |
| ■ Gender-specific treatment | ■ Transportation |
| ■ A focus on building self-esteem | ■ Peer support |
| ■ Written materials with large print | ■ Food, clothing, or shelter |
| ■ Staff who specialize in elder issues | ■ Counsellors who practice good self-care |
| ■ An available sliding scale | ■ A focus on coping skills |
| ■ Individualized attention or counselling | ■ Counsellors who genuinely care |
| ■ Optional family or friend involvement | ■ Linkages to outside services |
| ■ Accommodations for physical disabilities | ■ Accommodations for sensory declines or deficits |

From: Blow (2018) in *CCSA Report Improving Quality of Life: Substance Use and Aging*

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a simple and feasible approach, which can be incorporated into clinical practice. The approach is non-judgemental and motivational, based on the principle of universal screening integrated into normal routines. More intensive case management models can also be helpful for some individuals. Other approaches include peer support and contingency management, which is based on a systematic behavioural approach. It is important to also note that the quality of the relationship between the patient and care provider may be a more important determinant of success than the provider's specific qualifications. Family doctors, or primary care team members such as social workers or nurses, can and should provide on-going support. Supportive counselling along with practical advice from a trusted health care professional can be extremely helpful. Some individuals with SUDs have a long-standing history of adversity earlier in life and may suffer from post-traumatic stress disorder. Because of this, a trauma-informed approach is vitally important for some individuals.

A seamless continuum of care is needed to ensure older adults who are struggling with a SUD are adequately supported, from screening through to recovery. The DSM-5 defines early remission as three months of symptom-free non-use and sustained remission as a period greater than 12 months. Health care practitioners currently tend to offer episodic acute care in dealing with addiction with support that rarely equals the time required to achieve early remission. No other medical condition is so perversely undertreated, and yet stigma and blame is often directed towards those who are unsuccessful. This is a system failure much more than it is a personal failure, but it is the patient and their family who carry the blame and shame. Advocacy and continuous evidence-based quality improvements are required to mend this fractured system of care.

The CCSA recently released a document entitled *Finding Quality Addiction Care in Canada (Drug and Alcohol Treatment Guide)*. The document is a helpful guide for individuals who are seeking treatment and includes a series of questions to ask before embarking on a treatment program. It includes an introduction with discussion on when it is the right time to seek treatment, as well as a detailed section on planning treatment. Treatment settings are described including outpatient (community), inpatient (hospital), residential care, withdrawal management centres, and continuing care. Structured treatment programs are described which may be intensive with an organized daily schedule of treatments and activities. Treatment can include group and individual therapy, education, social skills training, and treatment planning. It is noted that these programs are most often used by people with long-standing problems who have not had success with other types of treatment. People with a substance use problem plus a serious mental disorder or medical condition might need a structured treatment program in a hospital. The document also includes a list of information services and their contact details from across Canada.

Transitions in care for SUDs are important times to ensure case management meets the unique needs of each patient. People need support to remain safe while awaiting detox and the acute withdrawal period during detox needs to be appropriately managed for older adults who may be frail or have significant co-morbidities. Post-acute withdrawal, when the brain is returning to its new normal, is a period of weeks to months during which relapse rates are high due to cravings and the frequent presence of triggers; support is therefore again needed during the transition into and back out of rehab. Finally, the clinician needs to remain engaged to support the transition into recovery. This is often described as a journey in which the patient is learning how to live without chemical coping, to address their many issues, and reconnect with life. Awareness of these transitions and the provision of appropriate support, without enabling, is an important part of the clinical role and relationship. Appropriate treatment and longitudinal, comprehensive care can be as successful with SUDs as any other chronic disease.

Appendix A: CCSMH Substance Use Disorders Guidelines Steering Committee

Chair of Committee, Co-Chair CCSMH **Dr. David Conn**
Co-Chair, CCSMH **Dr. Kiran Rabheru**
Executive Director, CCSMH **Claire Checkland**
Co-Leads, Alcohol Use Disorder Among Older Adults **Dr. Peter Butt and Marilyn White-Campbell**
Co-Leads, BZRA Use Disorder Among Older Adults **Dr. David Conn and Dr. David Hogan**
Co-Leads, Cannabis Use Disorder Among Older Adults **Dr. Jonathan Bertram, Dr. Amy Porath and Dr. Dallas Seitz**
Co-Leads, Opioid Use Disorder Among Older Adults **Dr. Launette Rieb and Dr. Zainab Samaan**

References

- Adelson, N. (2005). The embodiment of inequity: Health disparities in Aboriginal Canada. *Can J Public Health*, 545-561.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed). Arlington, VA: American Psychiatric Publishing.
- American Society of Addiction Medicine. Definition adopted by ASAM Board of Directors, September 15th, 2019. Accessed 9th December 2019 at: <https://www.asam.org/resources/definition-of-addiction>
- Beauchet, O. (2018). Medical cannabis use in older patients: Update on medical knowledge. *Maturitas*, 118, 56-59.
- Blow, F.C. (2018). Substance use treatment for older adults in Improving Quality of Life: Substance Use and Aging. Canadian Centre on Substance Use and Addiction. Ottawa, Ontario.
- Canadian Centre on Substance Use and Addiction. (2017). Finding Quality Addiction Care in Canada (Drug and Alcohol Treatment Guide). Ottawa, Ontario.
- Canadian Centre on Substance Use and Addiction. (2018). Improving Quality of Life: Substance Use and Aging. Ottawa, Ontario.
- Canadian Medical Association. (2019). CMA Driver's Guide—determining medical fitness to operate motor vehicles (9th ed).
- Caputo, F., Vignoli, T., Leggio, L., et al. (2012). Alcohol use disorders in the elderly: a brief overview from epidemiology to treatment options. *Exp Gerontol*, 47(6), 411-16.
- Choi, N. G., DiNitto, D. M., & Marti, C. N. (2014). Risk factors for self-reported driving under the influence of alcohol and/or illicit drugs among older adults. *Gerontologist*, 56(2), 282-291.
- Colliver, J. D., Compton, W. M., Gfroerer, J. C., Condon, T. (2006). Projecting drug use among aging baby boomers in 2020. *Ann Epidemiol*, 16(4), 257-265.
- Conn, D. (2018). Detection, Screening and Assessment in Flint A, Merali Z, Vaccarino F (Eds). Substance use in Canada – Improving quality of life: Substance Use in Aging. Canadian Centre on Substance Use and Addiction. Ottawa, Ontario.
- Dube, S. R., Felitti, V. J., Dong, M., Chapman, D. P., Giles, W. H., & Anda, R. F. (2003). Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. *Pediatrics*, 111(3), 564-572.
- Ferreira M.P., Weems M.K.S. (2008). Alcohol Consumption by Aging Adults in the United States: Health Benefits and Detriments. *J Am Diet Assoc*, 108, 1668-76.
- Griffin III C.E., Kaye A.M., Bueno F.R., Kaye D. (2013) Benzodiazepine Pharmacology and Central Nervous System-Mediated Effects. *Ochsner J*, 13, 214-23.
- Gunja, N. (2013). In the Zzz zone: the effects of Z-drugs on human performance and driving. *J Med Toxicol*, 9(2), 163-171.
- Hadley E.C., Kuchel G.A., Newman A.B., et al. (2017). Report: NIA Workshop on Measures of Physiologic Resiliencies in Human Aging. *J Gerontol A Biol Sci Med Sci*, 72(7), 980-90.
- Han, B. H., & Palamar, J. J. (2018). Marijuana use by middle-aged and older adults in the United States, 2015–2016. *Drug Alcohol Depend*, 191, 374-381.
- Hansen, R. N., Boudreau, D. M., Ebel, B. E., Grossman, D. C., Sullivan, S. D. (2015). Sedative hypnotic medication use and the risk of motor vehicle crash. *Am J Public Health*, 105(8), e64–e69.
- Health Canada (2011). Honouring Our Strengths: A Renewed Framework to Address Substance Use Issues Among First Nations People in Canada. Ottawa, Ontario
- Health Canada (2018). Background document: Public consultation on strengthening Canada's approach to Substance use issues. Ottawa, ON.
- Kim C.S., Flanders S.A. (2013). In the Clinic. Transitions of Care. *Ann Intern Med*, 158 (5 Part 1), ITC3-1- ITC3-16.
- Kuerbis, A., Sacco, P. (2012). The impact of retirement on the drinking patterns of older adults: a review. *Addic Behav*, 37(5), 587-595.
- Kuerbis, A., Sacco, P., Blazer, D. G., & Moore, A. A. (2014). Substance abuse among older adults. *Clin Geriatr Med*, 30(3), 629-654.
- Kushner, H. I. (2010). Toward a cultural biology of addiction. *BioSocieties*, 5(1), 8-24.
- Lehmann S.W., Fingerhood, M. (2018). Substance-Use Disorders in later Life. *N Engl J Med*, 379(24), 2351-60.
- Lowsky, D.J., Olshansky, S.J., Bhattacharya, J., Goldman, D.P. (2014). Heterogeneity in Healthy Aging. *J Gerontol A Biol Sci Med Sci*, 68(6), 640-49.

- Li, X., Sun, H., Marsh, D. C., & Anis, A. H. (2013). Factors associated with pretreatment and treatment dropouts: comparisons between Aboriginal and non-Aboriginal clients admitted to medical withdrawal management. *Harm Reduct J*, 10(1), 38.
- McHugh, R. K., Votaw, V. R., Sugarman, D. E., & Greenfield, S. F. (2018). Sex and gender differences in substance use disorders. *Clin Psychol Rev*, 66, 12-23.
- McLean A.J., Le Couteur D.G. (2004). Aging Biology and Geriatric Clinical Pharmacology. *Pharmacol Rev*, 56, 163-84
- Mental Health Commission of Canada (2011). Guidelines for comprehensive mental health services for older adults in Canada. Ottawa, Ontario.
- Mitnitski, A., Howlett, S.E., Rockwood, K. (2017). Heterogeneity of Human Aging and Its Assessment. *J Gerontol A Biol Sci Med Sci*, 72(7), 877-84.
- Moore, A. A., Karno, M. P., Grella, C. E., Lin, J. C., Warda, U., Liao, D. H., & Hu, P. (2009). Alcohol, tobacco, and nonmedical drug use in older US adults: Data from the 2001/02 National Epidemiologic Survey of Alcohol and Related Conditions. *J Am Geriatr Soc*, 57(12), 2275-2281.
- Moos, R. H., Schutte, K. K., Brennan, P. L., Moos, B. S. (2010). Late-life and life history predictors of older adults' high-risk alcohol consumption and drinking problems. *Drug Alcohol Depend*, 108(1-2), 13-20.
- Naples J.G., Gellad W.F., Hanlon J.T. (2016). The Role of Opioid Analgesics in Geriatric Pain management. *Clin Geriatr Med*, 32, 725-35.
- Ogden, E. J. D., Verster, J. C., Hayley, A. C., Downey, L. A., Hocking, B., Stough, C. K., ... & Bonomo, Y. (2018). When should the driver with a history of substance misuse be allowed to return to the wheel? A review of the substance misuse section of the Australian national guidelines. *Intern Med J*, 48(8), 908-915.
- Platt, A., Sloan, F. A., & Costanzo, P. (2010). Alcohol-consumption trajectories and associated characteristics among adults older than age 50. *J Stud Alcohol Drugs*, 71(2), 169-179.
- Public Health Agency of Canada. (2015). *Injury prevention for seniors*. Retrieved from: <https://www.canada.ca/en/public-health/services/health-promotion/aging-seniors/injury-prevention-seniors.html>
- Public Health Agency of Canada (2017). Dementia in Canada, including Alzheimer's disease. Accessed January 10, 2019 at – <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/dementia-highlights-canadian-chronic-disease-surveillance.html>
- Rao, R., & Roche, A. (2017). Substance misuse in older people. *Br Med J*. J3885
- Rapoport, M. J., Lanctôt, K. L., Streiner, D. L., Bédard, M., Vingilis, E., Murray, ... & Herrmann, N. (2009). Benzodiazepine use and driving: a meta-analysis. *J Clin Psychiatry*, 70 (5), 663-73.
- Roberts K.C., Rao D.P., Bennett T.L., Loukine L., Jayaraman G.C. (2015). Prevalence and patterns of chronic disease multimorbidity and associated determinants in Canada. *Health Promot Chronic Dis Prev Can*, 35(6), 87-94.
- Rowan, M., Poole, N., Shea, B., Gone, J. P., Mykota, D., Farag, M., ... & Dell, C. (2014). Cultural interventions to treat addictions in Indigenous populations: findings from a scoping study. *Subst Abuse Treat Prev Policy*, 9(1), 34.
- Royal College of Psychiatrists (2015). Substance misuse in older people: an information guide. London, U.K.
- Rudisill, T. M., Zhu, M., Kelley, G. A., Pilkerton, C., Rudisill, B. R. (2016). Medication use and the risk of motor vehicle collisions among licensed drivers: a systematic review. *Accid Anal Prev*, 96, 255–270.
- SAMHSA – Substance Abuse and Mental Health Services Administration (US) (1997). A Guide to Substance Abuse Services for Primary Care Clinicians. Rockville (MD): (Treatment Improvement Protocol (TIP) Series, No. 24.) Chapter 5—Specialized Substance Abuse Treatment Programs. Accessed January 10, 2019 at – <https://www.ncbi.nlm.nih.gov/books/NBK64815/>
- Schroek J.L., Ford J., Conway E.L., et al. (2016). Review of Safety and Efficacy of Sleep Medicines in Older Adults. *Clin Ther*, 38(11), 2340-72.
- Simoni-Wastila, L., & Yang, H. K. (2006). Psychoactive drug abuse in older adults. *Am J Geriatr Pharmacother*, 4(4), 380-394.
- Skewes, M. C., & Gonzalez, V. M. (2013). The biopsychosocial model of addiction. *Princ Addic*, 1, 61-70.
- Statistics Canada (2012). Canadian Community Health Survey—Mental Health (CCHS–MH).
- Statistics Canada (2013). Disability in Canada: Initial Findings from The Canadian Survey on Disability. Accessed January 10, 2019 at – https://www150.statcan.gc.ca/n1/en/pub/89-654-x/89-654-x2013002-eng.pdf?st=u41bOrt_

- Statistics Canada (2016). Aboriginal peoples in Canada: Key Results from the 2016 Census. Accessed November 10, 2019 at – https://www150.statcan.gc.ca/n1/en/daily-quotidien/171025/dq171025a-eng.pdf?st=O_V3-7Xq
- Statistics Canada (2016). Canadian Alcohol, Tobacco, and Drugs Survey. Government of Canada.
- Statistics Canada (2019). National Cannabis Survey, first quarter 2019. Government of Canada.
- Turcotte, M., Schellenberg, G. (2007) A Portrait of Seniors in Canada, 2006. Minister of Industry. Ottawa, Ontario
- Urbanowski, K.A. (2017). Need for equity in treatment of substance use among Indigenous people in Canada. *CMAJ*, 189(44), E1350-1.
- US Department of Health and Human Services. (2016). Facing addiction in America: The Surgeon General's report on alcohol, drugs, and health. *Washington, DC: HHS*, 6.
- van den Elsen, G.A.H., Ahmed, A.I.A., Lammers, M., et al. (2014). Efficacy and safety of medical cannabinoids in older subjects: A systematic review. *Ageing Res Rev*, 14, 56-64.
- Vaccarino, F.J. et al. (2018) A Call to Action in Improving Quality of Life: Substance Use and Aging. Canadian Centre on Substance Use and Addiction. Ottawa, Ontario.
- Wood, E., Li, K., Palepu, A., et al. (2005). Sociodemographic disparities in access to addiction treatment among a cohort of Vancouver injection users. *Subst Use Misuse*, 40, 1153-1167.
- World Health Organization (WHO) (2015). Lexicon of Alcohol and Drug Terms. World Health Organization.
- Wu, L. T., & Blazer, D. G. (2013). Substance use disorders and psychiatric comorbidity in mid and later life: a review. *Int J Epidemiol*, 43(2), 304-317.

ccsmh.ca

