Exploring Substance Use in Canada

EXPLORING SUBSTANCE USE IN CANADA

A Curriculum for Social Service Workers

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Nova Scotia

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WELCOME TO *EXPLORING SUBSTANCE USE IN CANADA: A GUIDE FOR SOCIAL SERVICE WORKERS*

Land acknowledgement

I would like to acknowledge that I live in Mi'kma'ki –the unceded territory and ancestral homeland of the Mi'kmaq Nation. Our relationship is based on a series of Peace and Friendship treaties between the Mi'kmaq Nation and the Crown, dating back to 1725. In Nova Scotia, we recognize that we are all treaty people. Please take a moment and think about the space you are sharing, take time to learn more and reflect on opportunities challenge the status quo.

I would like to acknowledge the individuals who use substances in Canada, many of whom share their experiences and stories through research captured in this text. As we begin our exploration into substance use in Canada, it is important to recognize and honor those who are living with a substance use disorder and those who have contributed to research. Please review the following powerful manifesto: Nothing About Us Without Us-A Manifesto

I would like to acknowlege the The Council of Atlantic Academic Libraries (CAAL) for the funding through the AtlanticOER Development Grants to complete the Instructor Resources and H5P content for this text book and Amber Davidson for her hard work in completing the Instructor Resources. I would also like to thank Dr. Carole Roy and Dr. Leona English as well as Lynn MacGregor at the NSCC Copyright Office and my family and friends for their support in the creation of this work.

This is an introductory text on substance use in Canada for Social Service workers. This text will be updated yearly with new evidence-based information, training, and resources. It is a living document, and learners and instructors are encouraged to share evidence-based resources with the author. It is an "open" textbook.

Substance use disorders (SUD), often known as addictions, are an essential area of study for the Social Service Professional. Why? Chances are you will find yourself working with individuals who use substances. You may also find yourself working with people who live with a process addiction or behavioural addiction, for example, gambling. Take a moment to develop a learning goal for yourself, for this course. What is important to you?

Food For Thought

- What is one goal for your learning about substances?

- What is one goal for your learning about substance use disorder?
- What is one goal for your learning about process/behavioural addiction like gambling?
- Track your learning goal and modify as needed.

Julie Crouse, Faculty at NSCC
June 8, 2022

ACCESS TO INSTRUCTOR RESOURCES

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INSTRUCTOR RESOURCES - REQUEST ACCESS

Here you will find PowerPoints for each chapter. I would like to thank the **Council of Atlantic Academic Libraries** for the funding to complete the Instructor Resources through the AtlanticOER Development Grants.

Chapter 1- Language and Substance Use
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INTRODUCTION

INTRODUCTION

In Canada, as well as other countries like the United States, "attitudes towards individuals with addiction are heavily moralized"[1] with a focus on the responsibility of an individual to heal themselves. This concept of substance use as a moral failing has resulted in laws and policies that harm rather than support people who live with a substance use disorder.[2] Kulesza et al.[3] suggest substance use may be better understood by examining the intersection between multiple social identities (racial/ethnic minority, women) and structural inequalities. College educators can help students understand the impact policies, laws and regulations have on individuals and families through curriculum designed with an intersectional lens to look at gender, race and substance use.

The subject of substance use is complicated. There are various agencies that address substance use, from the Government of Canada, Correctional facilities, Public Health, Canadian Centre on Substance Abuse, The Centre for Addiction and Mental Health, National Native Alcohol and Drug Abuse Program, and various health authorities, private agencies, and businesses as well as non-governmental organizations across the country. Each of these agencies has a mandate to address substance use in some way, from individual treatment through to incarceration; and while these agencies have some power in how substance use is treated, each of these agencies focus on substance use differently, some recognizing systemic injustices and others focusing on morality. There is a tremendous amount of information on substance use and various perspectives that agencies promote as well as the overall western approach to understanding and treating substance use disorders. As I have taught about substance use, I have had to ask myself, do I understand the intersections between substance use, gender, and race? How can I help build a more comprehensive curriculum, and how can I help students build on their experiences and knowledge in this curriculum? Students may learn about challenging laws and health policies and advocating for change to support marginalized groups, which require deep compassion for those who struggle with substance use. They may build on their understanding of systemic power and acknowledging cultural values to challenge the systems that put people at risk of substance use and substance use disorders. This process can begin by understanding the micro and macro forces that shape substance use in Canada. As Brookfield notes, "even if we realize that our problems are reflections of structural contradictions that we can do little about individually, knowing that we are not their cause is crucial to our well-being".[4] Many of the issues

1. Buchman, D., & Reiner, P. (2009). Stigma and addiction: Being and becoming. *The American Journal of Bioethics-Neuroscience, 9*(9), 18-19. https://doi.org/10.1080/15265160903090066
2. Syed, A., Sadler, M. D., Borman, M. A., Burak, K. W., & Congly, S. E. (2020). Assessment of Canadian policies regarding liver transplant candidacy of people who use alcohol, tobacco, cannabis, and opiates. *Canadian Liver Journal, 3*(4), 372-380. https://doi.org/10.3138/canlivj.2020-0005
3. Kulesza, M., Matsuda, M., Ramirez, J. R., Werntz, A. J., Teachman, B. A., & Lindgren, K. P. (2016). Towards greater understanding of stigma: Intersectionality with race/ethnicity and gender. *Drug and Alcohol Dependence, 169*, 85-91. https://doi.org/10.1016/j.drugalcdep.2016.10.020
4. Brookfield, S. D. (2014). *The power of critical theory for adult teaching and* learning, (p. 5).(2nd ed.). Open University Press.

related to substance use are systemic, for example, poverty and violence[5] and though they may not be resolved by your students, their understanding can help them improve their practice as future social services workers.

Addressing stigma is also necessary in order to challenge inequities.[6][7][8] Stigmas are negative attitudes and beliefs which often lead to "labeling, stereotyping, separation, status loss, and discrimination",[9] and are prevalent in the field of substance use. Some authors even suggest that stigma is an underlying factor in substance use, that "stigma figures in the social construction of substance use".[10] Citizens are affected by substance use, directly and indirectly, individually, and societally; and by understanding this, stigmas associated with substance use may decrease; "both scientists and mental health advocates have long suggested that an increase in the lay public's understanding [of substance use] … may reduce discrimination and prejudice".[11] Greater understanding of stigma may help reduce systemic inequities related to race and gender.

PURPOSE

The purpose of this project is to help students critically explore substance use in Canada. Using a critical epistemology, "a disclosure of the crossing/tension between being and power"[12] and a feminist pedagogy, which "focuses on the thoughts and experiences of individual students and tries to create an open learning community where mutual dialogue and empathy is valued",[13] this text will address the role of gender, race, and stigma within substance use. It allows for compassion, critical reflection, and greater understanding of systemic forces, in hopes of improving services for those living with a substance use disorder. It is a compendium for college students; it will help students further their understanding of substance use by tackling the historical context, feminist and critical race theories, and western and non-western points of view in order to support the further development of critical thinking skills. Brookfield suggests that "to think critically is mostly defined as the process of unearthing, and then researching, the assumptions one is operating under, primarily by taking

5. Matto, H. C., & Cleaveland, C. L. (2016). A social-spatial lens to examine poverty, violence, and addiction. *Journal of Social Work Practice in the Addictions, 16*(1), 7-23. https://doi.org/10.1080/1533256X.2016.1165113
6. Kulesza, M., Matsuda, M., Ramirez, J. R., Werntz, A. J., Teachman, B. A., & Lindgren, K. P. (2016). Towards greater understanding of stigma: Intersectionality with race/ethnicity and gender. *Drug and Alcohol Dependence, 169*, 85-91. https://doi.org/10.1016/j.drugalcdep.2016.10.020
7. Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology, 27,* 363-385. https://doi.org/10.1146/annurev.soc.27.1.363
8. Matthews, S., Dwyer, R., & Snoek, A. (2017). Stigma and self-stigma in addiction. *Bioethical Inquiry, 14*, 275–286. https://doi-org.libproxy.stfx.ca/10.1007/s11673-017-9784-y
9. Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology, 27,* 363-385. https://doi.org/10.1146/annurev.soc.27.1.363
10. Matthews, S., Dwyer, R., & Snoek, A. (2017). Stigma and self-stigma in addiction. *Bioethical Inquiry, 14*, 275–286. https://doi-org.libproxy.stfx.ca/10.1007/s11673-017-9784-y
11. Buchman, D., & Reiner, P. (2009). Stigma and addiction: Being and becoming. *The American Journal of Bioethics-Neuroscience, 9*(9), 18-19. https://doi.org/10.1080/15265160903090066
12. Jan, N. A. (2019). *The metacolonial state: Pakistan, critical ontology, and the biopolitical horizons of political Islam. John Wiley & Sons,* para. 1). https://doi.org/10.1002/9781118979419.ch1
13. Chung, Y. A. (2016). A feminist pedagogy through online education. *Asian Journal of Women's Studies*, *22*(4),372-391. https://doi-org.libproxy.stfx.ca/10.1080/12259276.2016.1242939

different perspectives on familiar, taken-for-granted beliefs and behaviors".[14] This OER will help students explore their assumptions about substance use.

THEORETICAL FRAMEWORK OF THE PROJECT

In order to make changes to systems of power, students should have an awareness of how those systems exert power. Brookfield suggests that by using critical theory, we are able "to identify, and then to challenge and change, the process by which a grossly iniquitous society uses dominant ideology to convince people this is a normal state of affairs".[15] Approaching this project from a place of critical theory, identifying how systems perpetuate substance use becomes important: "Critical perspectives generally assume that people unconsciously accept things the way they are, and in so doing, reinforce the status quo".[16] Developing greater awareness of how the systems function will enable students to work with people who struggle with substance use.

Embracing a feminist and critical race perspective will help further unpack substance use for the students. For example, women have unique needs and feminist theory acknowledges these unique needs.[171819] Feminist theory has been at the forefront of new directions in political, social, and cultural theories. Using the intersectionality of substance use with feminist and critical race theory provides a multi-faceted, culturally and gender responsive perspective, as "recent theoretical work emphasizes the importance of adapting an intersectionality framework to achieve better public health-related outcomes".[20]Using feminist theory can be critical as it "offers the potential to challenge hidden assumptions and beliefs and thereby effect change in ways that can improve the lives of those who have often been invisible, powerless, or disenfranchised".[21]

As a white faculty, it is important to acknowledge my privilege and approach this project from a place of 'nothing about us without us'. Material used includes the voices of the groups impacted by substance use. I have reviewed materials for diverse and unique perspectives to ensure course material is culturally responsive, appropriate, and will not cause harm. Deeper understanding of

14. Brookfield, S. D. (2014). *The power of critical theory for adult teaching and* learning, (p. vi). (2nd ed.). Open University Press.
15. Ibid, p. v
16. Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.)(p. 61). Jossey Bass.
17. The British Columbia Centre of Excellence for Women's Health. (2010). *Trauma-informed approaches in addictions treatment: Gendering the national framework*. https://bccewh.bc.ca/wp-content/uploads/2014/02/2010_GenderingNatFrameworkTraumaInformed.pdf
18. Homes, C. (2021). *Bridging the gap in women's substance use services: A trauma-informed, gender-responsive, and anti-oppressive approach*. City University of Seattle. http://repository.cityu.edu/bitstream/handle/20.500.11803/1465/ChristineHolmesCapstone .pdf?sequence=2&isAllowed=y
19. Kulesza, M., Matsuda, M., Ramirez, J. R., Werntz, A. J., Teachman, B. A., & Lindgren, K. P. (2016). Towards greater understanding of stigma: Intersectionality with race/ethnicity and gender. *Drug and Alcohol Dependence, 169*, 85-91. https://doi.org/10.1016/j.drugalcdep.2016.10.020
20. Kulesza, M., Matsuda, M., Ramirez, J. R., Werntz, A. J., Teachman, B. A., & Lindgren, K. P. (2016). Towards greater understanding of stigma: Intersectionality with race/ethnicity and gender. *Drug and Alcohol Dependence, 169*, 85-91. https://doi.org/10.1016/j.drugalcdep.2016.10.020
21. Lambert, J. L. (1997, November 8). *Feminist assessment: What does feminist theory contribute to the assessment conversation? ASHE Annual Meeting Paper* (p. 4). American Association for Higher Education. https://files.eric.ed.gov/fulltext/ED415819.pdf

various perspectives may impact on the understanding of stigma, substance use, and approaches that are effective for working on substance use in the community.

GAPS IN KNOWLEDGE

The theories of substance use from a western perspective are evolving. While a moral theory is still prevalent in much of the population, guides laws like Canada's Controlled Drug and Safety Act,[22] and is perpetuated by the media, there has been a shift in the medicalization of substance use disorders. The recent decriminalization of certain substances and certain amounts in British Columbia[23] is the beginning of an understanding that substance use is not a moral failing. As our understanding of substance use continues to evolve, a broader perspective which includes gender, language, culture, trauma, and systemic factors may help us understand and perhaps address some of the societal inequities that put individuals and communities at risk of substance use. However, there is no panacea, nor any magic bullet and Wright suggests that "if substance use is 'always already' part of the metaphysics of western culture, it can be hard to be analytical about specific effects at specific times".[24] This is one piece of a complicated puzzle.

NON-WESTERN VIEWS

Residential schools, relocation, and forced assimilation have had a devastating impact on Indigenous communities across Canada. Citizens are responsible to learn, to grieve, to develop empathy, and to make change. Gouthro suggests that we must develop deeper understanding of "inclusion, diversity, and discrimination, to build on and radically challenge existing theoretical frameworks".[25] How has substance use impacted Indigenous, Black, and People of Colour communities?

This text tries to embody Two-eye seeing[26] by using examples of Indigenous peoples through the National Film Board (NFB), Truth and Reconciliation Commission (TRC), and other Indigenous resources. Elder Albert Marshall, Mi'kmaq Indigenous Leader from the Eskasoni First Nation, suggests that "learning to see from one eye with the strengths of Mi'kmaq ways of knowing, and from the other eye with the strengths of Western ways and learning to use both these eyes together for the benefit of everyone" (personal communication, February 9, 2021). Being responsive to Indigenous ways of knowing must include a holistic view by not only sharing stories, but treatment resources like sweat lodges, traditional teachings, and an emphasis on the mind, body, emotion, and spirit connection using the medicine wheel. I will also honor the ways of knowing of People of Color by including a history of the war on drugs, and prohibition, to recognize the racialization of substance use and the power of racism in substance use.

22. Government of Canada (2021a). *Controlled drugs and substances act*. https://laws-lois.justice.gc.ca/eng/acts/c-38.8/
23. CBC. (2022). *Canada took a step toward decriminalizing hard drugs. Here's what it can learn from other countries*. https://www.cbc.ca/news/health/safe-supply-around-the-world-1.6479317
24. Wright, C. (2015). Consuming habits: Today's subject of addiction. *Subjectivity, 8*(2), 93-101. http://dx.doi.org.libproxy.stfx.ca/10.1057/sub.2015.6
25. Gouthro, P. A. (2019). Taking time to learn: The importance of theory for adult education. *Adult Education Quarterly, 69*(1), 60-76. https://doi.org/10.1177/0741713618815656
26. Cape Breton University. (2013). *Two-eyed seeing model developed in Cape Breton drives new national grant for Aboriginal health research*. http://www.integrativescience.ca/uploads/files/2013-CBU-Two-Eyed-Seeing-Model-Developed-in-Cape-Breton-Drives-New-National-Grant.pdf

LEARNING ACTIVITIES

According to Merriam and Tisdell, "the online or virtual world is a whole culture in and of itself".[27] Having an Open Educational Resource allows for students to interact through technology and reduces barriers to access (the resource is free of costs). The curriculum has been created with text, quizzes, activities, and questions for reflection, activities designed to improve engagement and critical reflection. Colucci suggests that using activities "can also be helpful to discuss sensitive topics"[28]; the topics we will be discussing can be difficult for many of the students. The activities are designed to make them think and question, they may bring up painful experiences. The curriculum tries to reflect trauma sensitivity. Students come to the classroom with knowledge that has been shaped by numerous factors, "who we are shapes both how we experience things and what we know, then our histories, our experiences, and our positionalities in society will shape how we meet contemplative practices".[29] Embedding a trauma sensitive approach that respects student's past, oppressions that they may face/have faced, and traumatic experiences they may have had is critical in properly implementing mindfulness, which is implemented at the end of each chapter. Using David Treleaven's[30] work on trauma-sensitive mindfulness will help students recognize symptoms like withdrawal, anger, tears, disorientation, and encourage them to get support. Students will be encouraged to be aware of what activates them and how they normally self-regulate. Students will also be encouraged to engage in self-compassion, so they do not continue to carry trauma-related shame if they are activated.[31] Each section has a self-care module that students are encouraged to participate in.

ETHICS

As I reflect on this work, I have begun to address my privilege, as well as my experience working in mental health and substance use. This OER is an opportunity to contribute to a deeper understanding of how we engage with individuals who use substances, who find themselves living with a substance use disorder, and allow for compassion and mindful engagement. I hope this text will contribute to a deeper understanding of how we understand and engage with individuals, communities and societies experiencing substance use and will lead to a more compassionate approach addressing substance use in Canada.

27. Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.) (p. 158). Jossey Bass.
28. Colucci, E. (2007). Focus groups can be fun; The use of activity-oriented questions in focus group discussions. *Qualitative Health Research, 17*(10), 1422-1433. https://doi-org.libproxy.stfx.ca/10.1177/1049732307308129
29. Berila, B. (2014). Contemplating the effects of oppressions: Integrating mindfulness into diversity classrooms. *The Journal of Contemplative Inquiry, 1*, 55-68. https://doi.org/10.4324/9781315721033
30. Treleaven, D. (2021). *The truth about mindfulness and trauma.* https://davidtreleaven.com/the-truth-about-mindfulness-and-trauma/
31. Ibid.

CHAPTER 1: LANGUAGE AND SUBSTANCE USE

Learning Objectives

By the end of this chapter you should be able to:

1. Recognize the role of the social determinants of health on individuals
2. Define intersectionality
3. Describe stigma
4. Recognize appropriate and inappropriate language regarding substance use
5. Explain how language contributes to stigma
6. Explain how stigma can impact a person's health
7. Illustrate the role of compassion for others and self

1.1 OVERVIEW

As we start our journey into substance use and process addiction/behavioural disorders we will start with an exploration of the power of language. Can we change how we treat substance use by changing the language? Let us explore the possibilities.

Perhaps this is your first exploration of the complex world of substances, substance use, and substance use disorders; maybe you have direct experience with this topic, through family, friends, or community. You may even have struggled with substances yourself. If so, I appreciate your engagement with this topic, all are welcome here! This text will help guide your educational journey from why people use substances, substance use disorders, Canada's policies on substances, theories of substance use, as well as supporting individuals who use substances and finally recovery and prevention. I hope this resource will be a helpful guide as we delve into a topic that is complex and challenging. I encourage you to take care of yourself as you work through each chapter, including reaching out to your support system as needed. Are you ready? Let's get started! Take a minute to think about what you know about addictions and complete the quiz below.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=21#h5p-1

How did you do? If you answered all 9 questions correctly, congratulations, you have busted some myths about substance use and have a solid footing on which to build your knowledge! If not, do not worry, we will tackle these questions and more throughout this text. On that note, let's begin our journey.

1.2 SUBSTANCE USE AND THE DETERMINANTS OF HEALTH

What makes you who you are? When you think about who you are, everything matters; for example, your physiology (body and brain), the environment around you, your biological makeup, your life experience, your gender, your abilities, your ethnicity, and your psychological well-being (mental health). These are just some of the factors that have gone into your development and where you find yourself at this moment in time. These are part of Canada's Determinants of Health.

The determinants of health[1] are a broad range of factors that impact every person's health, including

1. Income and social status
2. Employment and working conditions
3. Education and literacy
4. Childhood experiences
5. Physical environments
6. Social supports and coping skills
7. Healthy behaviours
8. Access to health services
9. Biology and genetic endowment
10. Gender
11. Culture
12. Race / Racism

These factors, along with other social factors like systemic racism and sexism impact your health. For example, "studies have shown that people exposed to racism have poorer health outcomes (particularly for mental health), alongside both reduced access to health care and poorer patient experiences"[2] The social determinants of health therefore tell us our health is affected by more than just exercise and healthy eating. When we use the social determinants of health to explore our health we are looking at the big picture. Sometimes we are not always aware of the various systems which play a role in our life. To help us understand ourselves a little more, let us start with reflecting on our own experiences.

1. Government of Canada. (2020). Social determinants of health and health inequities. https://www.canada.ca/en/public-health/services/health-promotion/population-health/what-determines-health.html
2. Stanley, J., Harris, R., Cormack, D., Waa, A., & Edwards, R. (2019). The impact of racism on the future health of adults: Protocol for a prospective cohort study. BMC Public Health, 19(346), p.1. https://doi.org/10.1186/s12889-019-6664-x

1.2A ACTIVITIES

1. Review the Government of Canada's determinants of health website.
2. Create a picture of yourself. Using the social determinants of health, identify our experiences with one example in each category.
3. What is one intervention that could have impacted your health in a positive way?
4. What is one intervention that could have impacted your health in a negative way?
5. When you think about the social determinants of health, what areas do you think might put you at risk of a substance use disorder? Why?

After participating in this activity, you may have a deeper understanding of yourself. More exploration of the social determinants of health can help you gain a deeper understanding of substance use When people study substance use and the people who live with a substance use disorder, the social determinants of health can be used to look broadly at the many factors and systems that intersect in a person's life. To understand and develop empathy for people living with a substance use disorder, we must examine not only the determinants of health, but how the intersection between those determinants of health impact an individual. For example, if a person has multiple social identities (for example a racial/ethnic minority and a woman) and there are structural inequalities linked to these identities (racism, sexism), these intersections may compound the negative impacts on their health[3], which may lead to substance use. In other words, there may not be one single factor that relates to a person's substance use or substance use disorder.

The video Intersectionality and health explained[4] may help you understand intersectionality further.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=23#oembed-1

Research suggests we must acknowledge intersectionality, systems, and theories to work effectively in the field of substance use and substance use disorders. As you further your understanding substance use, take time to reflect on each section, participate in the food-for-thought and activity sections, and reflect on your growing understanding.

3. Kulesza, M., Matsuda, M., Ramirez, J. J., Werntz, A. J., Teachman, B. A., & Lindgren, K. P. (2016). Towards greater understanding of addiction stigma: Intersectionality with race/ethnicity and gender. Drug and Alcohol Dependence, 169, 85-91. https://doi.org/10.1016/j.drugalcdep.2016.10.020
4. Sociological Studies Sheffield. (2020, Oct. 8). *Intersectionality and health explained.* [Video]. https://www.youtube.com/watch?v=rwqnC1fy_zc

Food For Thought

- How did you become aware of substance use?
- What do you think the difference is between substance use and substance use disorders?
- Take a moment and reflect honestly on how you feel about substance use and substance use disorders.
- Where do your beliefs about substance use come from? Friends, media, family?

Now that we have established the complexity of substance use, the next section will examine the language we use and the role it plays in the lives of people with substance use disorders, their family, friends, and health care workers.

1.3 CHANGING THE LANGUAGE OF "ADDICTION"

Addiction as a diagnosable and treatable illness is recent, though the phenomenon of people misusing substances is not. For example, in the first four iterations of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) used in psychiatry, addiction as a disorder was not included; neither for substances nor behaviour. The DSM is "the standard classification of mental disorders used for clinical, research, policy, and reimbursement purposes in the United States and elsewhere"[1] and is a text you will use in your program and in your work. As our understanding of substance use and behaviour has changed, our ability to diagnose and support has also changed; the most recent version, DSM-V, now includes substance-related and addictive disorders. There are some behavioural disorders like gambling which continue to use the term addiction. By changing the language, perhaps we can reduce the stigmatization of the term.

What is stigma? You may have heard the term stigma to describe poverty, disability, mental illness, and culture. Stigmas are negative attitudes or beliefs about a topic,[2] and are prevalent in the field of substance use; some even suggest stigma is an underlying factor in substance use and behaviours as Matthews et. al. suggest, "stigma figures in the social construction of addiction"[3] If we can address the stigma of the language, we may begin to tackle the stigma of substance use disorders; "stigma not only impedes access to treatment and care delivery, but it also contributes to the disorder on the individual level".[4] If we change the language of addiction, will it reduce stigma and improve health outcomes for people living with addiction? Only time will tell, though "both scientists and mental health advocates have long suggested that an increase in the lay public's understanding of stigma…may reduce discrimination and prejudice".[5] Substance use is highly stigmatized.

The next step in our learning journey, as we develop greater understanding of substance use and stigma, is to examine the language we use. For many people, substance use disorders are seen simply as "*addiction*". Take a moment and reflect on the word addiction.

Food For Thought

- When you think of the word addiction, what do you think of?

1. American Psychiatric Association. (2021). Diagnostic and statistical manual of mental disorders (DSM–5). https://www.psychiatry.org/psychiatrists/practice/dsm?_ga=2.179182436.1550973016.1636716595-1556092926.1621254941
2. Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. Annual Review of Sociology, 27, 363-385. https://doi.org/10.1146/annurev.soc.27.1.363
3. Matthews, S., Dwyer, R., & Snoek, A. (2017). Stigma and self-stigma in addiction. Bioethical Inquiry, 14, p. 275. https://doi-org.libproxy.stfx.ca/10.1007/s11673-017-9784-y
4. Volkow, N. D. (2020). Stigma and the toll of addiction. The New England Journal of Medicine, 382(14), 1289-1290. http://dx.doi.org.libproxy.stfx.ca/10.1056/NEJMp1917360
5. Buchman D., & Reiner, P. (2009, September). Stigma and addiction: Being and becoming. The American Journal of Bioethics-Neuroscience, 9(9), 18-19. https://doi.org/10.1080/15265160903090066

- When you reflect on the word addict, what springs to mind?

Let us start with this short primer called Illuminate.[6]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=28#oembed-1

What is your responsibility as a Social Service worker for helping to reduce the stigma of substance use disorders (SUD)? Reflect on the video, it is focusing on taking substance use out of the shadows. One way we can do this is to explore the word addiction itself, to understand its meaning and its history. The term has evolved and only came to use in the 17th century relating to substance use, with the medical conception of addiction beginning around the 19th century.[7] The word addiction has it roots in Latin and was used in the Early Roman Republic as "being bound to".[8] In the case of the Roman Republic, it was bound to a creditor, to someone you owed something. In today's world should we view a substance use disorder as still being bound to? Does this impact our ability to support individuals with substance use disorders? If we examine the concept of having no will when it comes to substance use, this may contribute to the stigma associated with substance use disorders.

Food For Thought

- Think for a moment about the idea of "being bound to"; what does this make you think of?
- Can you relate this concept of bondage to substances or behaviours?
- What is the "power" of addiction?
- How do you think this concept contributes to stigma?
- Do you think changing the language will reduce stigma? Why or why not?

For many, addiction suggests an inability to manage consumption of *licit* and *illicit* substances or an inability to manage an activity like gambling. For others, the word addiction relates to an activity they love to do; addiction has been used to describe activities people are passionate about. This confusion between the terms adds to the stigma; the "contemporary usage of addiction is contradictory and confusing; the term is highly stigmatizing but popularly used to describe almost any strong desire,

6. Canadian Centre on Substance Use and Addiction. (2019). *Illuminate*. [Video]. YouTube. https://www.youtube.com/watch?v=23KMfX5R8lM
7. Levine, H. G. (1978). The discovery of addiction: Changing conceptions of habitual drunkenness in America. *Journal of Studies on Alcohol, 15,* 493-506. https://doi.org/10.15288/jsa.1978.39.143
8. Ibid.

passion or pursuit".[9] Let us think for a moment how you use the word *addiction*? Is this a word you have used before? Has it related to substance use? Perhaps you have used this word to describe your relationship with a particular snack food, "I am addicted to chocolate," or maybe a technology "I am addicted to this new app."

Chocolate Credit: M.Verkerk CC BY

Woman on Phone. Credit: antonynjoro via Pixabay

Addiction, consequently, is a term we not only use to describe substance use disorders, but we use it to describe our relationship with the world around us and we use it interchangeably in both positive and negative ways. If you look up addiction on the internet, you will find the term addiction being used by companies marketing products, celebrity blogs, individual podcasts, and more. The *stigma* of the word addiction, however, seems to relate only to substances and behaviours that society deems inappropriate, dangerous, or unhealthy. Addiction as a term and a concept is so polarizing that in fact "there was an attempt to avoid it entirely by writing it out of the diagnostic manuals and

9. Rosenthal, R. J., & Faris, S. B. (2019). The etymology and early history of 'addiction'. Addiction Research & Theory, 27(5), 437-449. https://doi.org/10.1080/16066359.2018.1543412

substituting other terms like abuse and dependence"[10] Addiction as a concept relating to substances has been difficult to define and is slowly being replaced by phrases such as substance use, misuse, or substance use disorder. Even the term substance abuse has been highlighted as a negative term due to the negative connotation associated with punishment[11] Addiction, therefore, as a concept relating to substances and activities is often associated with negative behaviours. This association has led to the stigmatization of the term addiction.

10. Levine, H. G. (1978). The discovery of addiction: Changing conceptions of habitual drunkenness in America. *Journal of Studies on Alcohol, 15,* p. 439. https://doi.org/10.15288/jsa.1978.39.143

11. Canadian Centre on Substance Use and Addiction. (2017). Changing the language of addiction [fact sheet]. https://www.ccsa.ca/changing-language-addiction-fact-sheet

Stigmatizing Words Fact Sheet by the Canadian Centre on Substance Abuse. Long Description.

Stigma impacts the way we treat people, it impacts the way people who use substances see themselves and access support. Please watch the following video Stop Stigma[12] by people with substance use disorders who talk about how stigma has impacted their lives.

12. Northern Health B. C. (2017, March 29). Stop stigma. Save lives: Experiences of stigma. [Video]. YouTube. https://www.youtube.com/watch?v=NtxaFXThrzA

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=28#oembed-2

How do we reduce the stigma associated with the words we use when it comes to substance use disorders?

Food For Thought

- Why do you think the word addiction still has stigma?
- Do you prefer substance use disorder rather than addiction? Is there another term you think is less stigmatizing?
- Can you think of a different term than process addiction to address an addiction to food, shopping, sex, gambling, or technology?
- What are terms you can use to describe your love for something that do not include addiction?

As noted above, stigma impacts individuals who use substances. According to Volkow, people with addiction are consistently blamed for their disease[13]. This stigma can prevent individuals from accessing support due to self-stigmatization (lack of self-worth, low self-esteem) as well as previous poor experiences with healthcare or other services. As Social Service workers, we can seek to stop stigma by helping individuals, family, friends, and communities use language that reduces stigma. Let's listen to Dr. Kenneth Tupper discuss ways we can address stigma and discrimination in substance use disorders in the video Stigma and Discrimination in the Language of Addiction.[14]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=28#oembed-3

Some researchers have suggested we can reduce stigma of many illnesses, including substance use disorders, by using person-first language. For example, rather than saying an "addicted person," or an "addict," we say "a person with a substance use disorder." Person-first language has also been championed by people living with mental illnesses and other disabilities. This puts a person before a diagnosis, making the person the focus, rather than the illness. When reflecting on the social determinants of health and intersectionality we are looking beyond one factor to the whole individual and multiple connections between these factors, their life, and their experiences. When we choose

13. Volkow, N. D. (2020). Stigma and the toll of addiction. New England Journal of Medicine, 382(14), 1289-1290
14. CCSA. (2017, December 7). Stigma and Discrimination in the Language of Addiction, Dr. Kenneth Tupper. YouTube. https://youtu.be/FowNgyoAhpc

person first language, we choose to see **all** the parts of the individual. Rather than focusing on the substance use, we see a whole person and work with the unique aspects that make a person who they are. This allows both a Social Service worker and the agency supporting the individual to provide a more comprehensive service.

1.3A Activities

1. Write down all the words you have heard or used to describe substance use. Place them on a continuum of positive to negative.
2. What do you notice?
3. How do you think these words impact individuals living with a substance use disorder?
4. How do you think the language you use might impact your professional relationship with clients as a Social Service worker?
5. What is one way you might challenge your beliefs about substance use disorders?
6. Create a poster or handout focusing on stigma and substance use.
7. Develop a social media post that addresses stigma and substance use.

We are all affected by addiction whether directly or indirectly, and to improve health outcomes of all Canadians the stigma associated with both the term and the activity must be addressed. Greater understanding of the terms we use interchangeably for "addiction," unpacking the stigma associated with the term, and choosing language that highlights the individual rather than the behaviour, we can change how we see and work with people living with a substance use disorder. This can lead to a change in how others view and treat people with substance use disorders in Canada.

Take a minute to try the word search. Can you define all the words?

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=28#h5p-2

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- Chocolate by M Verkerk, J.J.G.Claessens via Wikimedia Commons shared under a CC BY license
- Woman on Phone by antonynjoro via Pixabay shared under a Pixaby licence
- Canadian Centre on Substance Use and Addiction. (2018). *Stigmatizing language fact sheet[infographic]*. https://www.ccsa.ca/sites/default/files/2019-05/CCSA-NAAW-Stigmatizing-Language-Fact-Sheet-2018-en.pdf

1.4 RACE, STIGMA AND SUBSTANCE USE

According to Statistics Canada,[1] approximately 23% of Canadians identify as a "minority." This includes People of Color, Indigenous people (Aboriginal, Metis, Innu, Innuit), and immigrants from countries all over the world. If you remember in section 1.1, we discussed race/racism as one of the social determinants of health. When a person experiences racism, research shows that racist incidents are similar to traumatic experiences; and there are both physical and mental health ramifications.[2] People of Color have experienced racism for centuries. The impacts of slavery, which existed in Canada,[3] and colonization of People of Color has been and is both overt, subtle, and systemic.[4] Indigenous people have also been impacted by racism and stigma through colonization. This racism extends through the language we use when it comes to substance use.

In this section we explore how language contributes to racism, which in turn can lead to substance use. We will explore how stigma subsequently plays a large role in creating barriers for treatment and support of substance use disorders. Let us watch this video to explore how the language of substance use has impacted Indigenous communities.[5]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=32#oembed-3

Food For Thought

- Where does language come from?

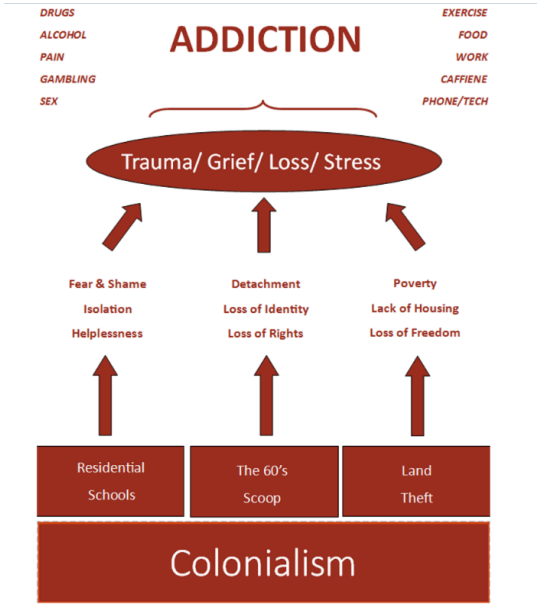
1. Government of Canada (2016). *Census profile*. https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=PR&Code1=01&Geo2=PR&Code2=01&SearchText=Canada&SearchType=Begins&SearchPR=01&B1=Visible%20minority&TABID=1&type=1
2. Lee, B., Kellett, P., Seghal, K., & Van den Berg, C. (2018). Breaking the silence of racism injuries: A community-driven study. *International Journal of Migration, Health, and Social Care, 14*(1), 1-14. http://dx.doi.org/10.1108/IJMHSC-01-2016-0003
3. Cooper, A. (2006). *The hanging of Angélique: The untold story of slavery in Canada and the burning of Old Montréal.* University of Georgia Press.
4. Government of Canada (2020). *Social determinants and inequities in health for Black Canadians: A snapshot.* https://www.canada.ca/en/public-health/services/health-promotion/population-health/what-determines-health/social-determinants-inequities-black-canadians-snapshot.html
5. TEDx Talks. (2020, April, 8). *TEDx San Francisco University-Len Pierre-Decolonizing Substance Use & Addiction.* [Video]. Youtube. https://www.youtube.com/watch?v=j95ayhyadNE

- Reflect on specific language/terms you use.
- Are there terms you would change? Why?
- How do you think you can decolonize language?

Numerous studies have documented relationships between self-reports of discriminatory experiences and reports of distress, which can lead to substance use.[6] While further research must be done to determine the causal relationship, the relationship exists. This means that if a person experiences racism they may use substances as a form of coping. Rather than using substances to cope, we can help promote healthier choices through access to healthcare that addresses the social determinants of health, including racism. One example of an agency ensuring the intersectionality of health is addressed is the North End Community Health Centre in Halifax, NS.[7]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=32#oembed-1

One step we can take as Social Service workers is to actively talk about racism and how it exists in our lives. Addressing the language we use is an important part of addressing racism, reducing stigma, and supporting the health of minorities in Canada. For example, the intersectionality of black people's lives in Canada includes "age, gender, sexual orientation, ability, religion, immigration status, country of origin, socioeconomic status, and racialized identity"[8] For Indigenous Canadians



Flow chart on how colonialism leads to addiction.
Credit: First Nations Health Authority. Long Description.

6. Gibbons, F. X., Etcheverry, P. E., Stock, M. L., Gerrard, M., Weng, C. Y., Kiviniemi, M., & O'Hara, R. E. (2010). Exploring the link between racial discrimination and substance use: what mediates? What buffers? *Journal of Personality and Social Psychology*, *99*(5), 785–801. https://doi.org/10.1037/a0019880
7. North End Community Health Centre. (2021). *50 Years of NECHC*. [Video]. Youtube. https://www.youtube.com/watch?time_continue=20&v=yN1GQ7_dkXo&feature=emb_logo
8. Government of Canada (2020). *Social determinants and inequities in health for Black Canadians: A snapshot,* (para.

intersectionality also exists between colonialism, residential schools, and trauma. "While the experiences of First Nations, Métis and Inuit in Canada are unique, they have all endured and pushed back against hundreds of years of colonization, persecution and on-going structural violence that was intended to push them to the margins of society" [9]

The knowledge of these overlapping factors and identities are critical when providing service as this can reduce barriers and stigma. Service provision can be more comprehensive, for example, and programming must be culturally and trauma sensitive when working with people who have a racialized identity. Due to their identity, we can assume that they have experienced racism. Racism can lead to further stigma, which in turn creates barriers to treatment and support. This racism has led to *perceptions* of substance use among Indigenous communities.

READING

The article below is an example of how racism and stigma have impacted Mi'kmaq people in Nova Scotia when it comes to accessing health care.

Stigma, systemic racism preventing people from seeking health care in Cape Breton by Ardelle Reynolds, October 7, 2021 in the online edition of *The Chronicle Herald.*

Food For Thought

- Reflect on racism and stigma in healthcare
- What are three ways racism and stigma are creating a barrier for service in this article?
- What do you think you need to be aware of when providing services?

When you read stories like this and others, it may cause you to feel emotional. This emotional reaction may result in feeling uncomfortable or unsafe. It is important to understand where these feelings begin. As you explore your thoughts, feelings, and emotions, this is an opportunity to also explore your understanding of racism in Canada. This could lead to further education about slavery in Canada, or of residential schools. Perhaps you may wish to learn more about traditional or cultural ways of knowing; exploring the concept of two-eyed seeing, developed by Elder Marshall, Mi'kmaq Indigenous Leader from the Eskasoni First Nation who suggests making change as "one conversation

6). https://www.canada.ca/en/public-health/services/health-promotion/population-health/what-determines-health/social-determinants-inequities-black-canadians-snapshot.html

9. Interagency Coalition on AIDS & Development. (2019). *Indigenous harm reduction, reducing the harms of colonialism, policy brief,* (p. 4) https://www.canada.ca/en/public-health/services/health-promotion/population- health/what-determines-health/social-determinants-inequities-black-canadians-snapshot.html

at a time" (personal communication, February 9, 2021). You may reflect on your identity and begin to examine privilege, "an invisible package of unearned assets".[10]

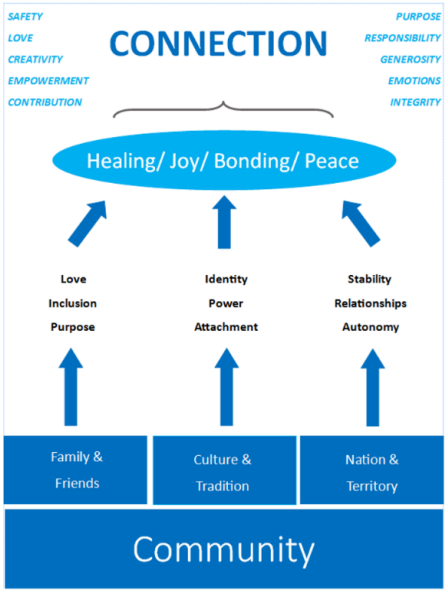
READING

Peggy McIntosh's White Privilege Checklist.

As Social Service workers, it is your responsibility to understand systemic issues that create barriers to service so you may work with empathy, compassion, and knowledge. This will contribute to reducing racism and stigma.

Promoting the importance of traditional knowledge and traditional treatment is another step in the reduction of stigma. It is through the resilience of Indigenous communities that "Indigenous peoples, languages, cultures, and traditions have not only survived, but they have also been revived, reclaimed, and revitalized".[11] Watch the video[12] below and reflect on the importance of Indigenous culture, practices, and treatment in healthcare.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=32#oembed-2



Flow chart on how community leads to connection. Credit: First Nations Health Authority. Long Description.

We know "substance use disorders are one of the most stigmatized mental health issues".[13] From the language we use, to the communities we engage with, we must be aware how language plays a role in racism and stigma for people who use substances and have substance use disorders. While we must be prepared to have

10. McIntosh, P. (1989). White privilege: Unpacking the invisible backpack. *Peace and Freedom Magazine*. https://psychology.umbc.edu/files/2016/10/White-Privilege_McIntosh-1989.pdf
11. Interagency Coalition on AIDS & Development. (2019). *Indigenous harm reduction, reducing the harms of colonialism, policy brief,* (p. 4) https://www.canada.ca/en/public-health/services/health-promotion/population- health/what-determines-health/social-determinants-inequities-black-canadians-snapshot.html
12. Royal College of Physicians and Surgeons of Canada. (2015, March 25). *Bridging the gap between traditional and western medicine: The remarkable work of Dr. Karen Hill.* [Video]. YouTube. https://youtu.be/nVQU1EmoWoU
13. Winters, E., & Harris, N. (2019). The impact of Indigenous identity and treatment seeking intention on the stigmatization of substance use. *International Journal of Mental Health & Addiction, 18,* 1403–1415. https://doi.org/10.1007/s11469-019-00162-6

difficult conversations and be prepared to talk about intersectionality, race, racism, and stigma in our work, it will require further training; seek out training that can support your understanding of language, racism, and stigma.

Image Credits

Flow charts on Colonialism and Community from: First Nations Health Authority. (2015). *Decolonizing substance use,* (pp. 10, 15). https://uphns-hub.ca/wp-content/uploads/2021/05/PowerPoint-Decolonize-Substance-Use-Indigenous-Harm-Reduction.pdf

1.5 GENDER, STIGMA AND SUBSTANCE USE

> When I first started in the divorce, um, when we first separated, I was straight. I was tryin' to do right. I had the kids in church. And it got so hard, and somebody was always goin' "well if you did this if you did that," and I started feelin' beneath. Uh, when I had the car wreck, I knew one way I could support my kids—I started sellin' drugs.[1]

Gender, as we discussed is one of the social determinants of health. Have you thought about how gender plays a role in substance use disorders? Researchers suggest there are "environmental, sociocultural and developmental influences"[2] when it comes to sex, gender and substance use. This means how a person is born regarding their biological sex (male or female), as well as how they identify (gender), plays a role in their substance use and in their development of substance use disorders. Please watch the following video[3] to explore sex, gender and substance use.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=35#oembed-1

Race and gender, as intersections of identity, also play a role in substance use and the development of a substance use disorder. Research suggests substance use disorders do differ by both biological sex and by gender.[4] Subsequently, there has been an increase in woman-focused research, as the majority of current treatment supports and services are still misinformed by research with a "male-as-norm" bias.[5] Review the Table on Sex Differences in Substance Use. This is important to be aware of, as we are exploring the social determinants of health and beginning to tackle racism, sexism, and the stigma associated with substance use.

1. Lee, N., & Boeri, M. (2017). Managing stigma: Women drug users and recovery services. *Fusio: the Bentley Undergraduate Research Journal, 1*(2), 65–94. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6103317/
2. Becker, J. B., McClellan, M. L., & Reed, B. G. (2017). Sex differences, gender, and addiction. *Journal of Neuroscience Research, 95*(1-2), 136–147. https://doi.org/10.1002/jnr.23963
3. National Institute on Drug Abuse. (2019). *Sex, gender and addiction.* [Video]. Youtube. https://www.youtube.com/watch?v=nP–FR198Cc
4. Becker, J. B., McClellan, M. L., & Reed, B. G. (2016). Sociocultural context for sex differences in addiction. *Addiction Biology, 21*(5), 1052-1059. https://doi.org/10.1111/adb.12383
5. Kruk, E., & Sandberg, K. (2013). A home for body and soul: substance using women in recovery. *Harm reduction journal, 10,* 39. https://doi.org/10.1186/1477-7517-10-39

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=35#h5p-3

Food For Thought

- Why do you think we should be aware of sex and gender when discussing substance use?
- What do you think are some issues specific to sex and gender for those who use substances?

Women as a gendered group face greater stigmatization than men for using drugs since they go against the character traits of perceived female identity. The stigma of drug use is also greater for mothers since they are expected to be the caregivers, raise children, and be more family oriented than fathers.[6]

What this suggests is society that societal expectations of women result in moral judgments and women are judged for using substances. As Social Service workers, it is important to be aware of these stigmas and judgments. When we think about women who use substances and those who have a substance use disorder, we must examine our assumptions. We reflect so we can provide non-judgmental services and ensure the research we are using addresses "unexamined assumptions about how women "should" behave" and how these "have influenced research agendas".[7] These assumptions consequently impact availability of evidence-based services and programs for treatment and prevention. We also must be aware that in general, "women report more problems related to health and mental health, as well as more past trauma and abuse (physical and sexual), and experience more sexual problems. Women are more likely to begin using drugs after a specific traumatic event, and to suffer from post-traumatic stress disorder".[8] How can we ensure that a program for women who live with a substance use disorder is the best it can be?

Several years ago, the United Nations developed a list of the issues that are specific to women who have substance use disorders. Of note is the association between substance use disorders and all forms of interpersonal violence (physical, sexual, and emotional) in women's lives.[9] To engage with people who identify as women, Social Service workers must be aware of the following issues:

- Shame and stigma

6. Lee, N., & Boeri, M. (2017). Managing stigma: Women drug users and recovery services. *Fusio: the Bentley Undergraduate Research Journal*, *1*(2), 65–94. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6103317/
7. Becker, J. B., McClellan, M. L., & Reed, B. G. (2017). Sex differences, gender, and addiction. *Journal of Neuroscience Research*, *95*(1-2), 136–147. https://doi.org/10.1002/jnr.23963
8. Kruk, E., & Sandberg, K. (2013). A home for body and soul: substance using women in recovery. *Harm reduction journal*, *10*, 39. https://doi.org/10.1186/1477-7517-10-39
9. United Nations Office on Drugs and Crime (2018). *Women and drugs; drug use, drug supply and their consequences.* https://www.unodc.org/wdr2018/prelaunch/WDR18_Booklet_5_WOMEN.pdf

- Physical and sexual abuse
- Relationship issues
- Fear of losing children
- Fear of losing a partner
- Needing a partner's permission to obtain treatment

These issues are not solely issues for a Canadian audience, they are worldwide. Based on these issues, the United Nations developed a list of concerns practitioners should address when supporting women with substance use disorders. These include:

- Lack of sex and gender-specific services for women
- Not understanding women's issues
- Long waiting lists
- Lack of childcare services
- Lack of financial resources
- Lack of clean/sober housing
- Poorly coordinated services.[10]

1.5A Activities

1. Review the UN lists above.
2. Brainstorm any missing concerns you think would be important to include.
3. Imagine you are providing a program for women with substance use disorders. What would you need to do to ensure your program meets UNODC recommendations?

To support women's health, Social Service workers must also address the stigma of women using substances. Rather than provide supportive and well-rounded ("wrap-around") services, some services may come from a place of moral judgment, which puts women who use substances in a greater position for marginalization and reduced health outcomes. "Women living with a history of substance use and addiction encounter many barriers when trying to access forums that are directly related to their life issues".[11] Women have reported "feeling unsupported and judged"[12] which negatively impacts their mental health and may prevent them from further accessing health care. Being aware of the societal issues related to women and substance use is one area Social Service

10. Ibid.
11. Paivinen, H., & Bade, S. (2008). Voice: Challenging the stigma of addiction -a nursing perspective. *International Journal of Drug Policy*, *19*(3), 214-219 https://doi.org/10.1016/j.drugpo.2008.02.011
12. Eggertson, L. (2013). Stigma, a major barrier to treatment for pregnant women with addictions: *Canadian Medical Association Journal, 185*(18), 1562. https://doi.org/10.1503/cmaj.109-4653

workers can make a real difference, through providing not only a judgment-free service, but a service that provides supportive services based on the UNODC recommendations. Gender based services that also support a *harm reduction* approach and address women's needs are an important part of a social service workers toolbox.

1.5B Activities

1. Research harm reduction.
2. Why is harm reduction important in providing services to women?

Harm reduction is simply that, reducing the harms that are associated with substance use (see Chapter 9). Harm reduction in women's programming should be comprehensive, addressing the issues identified above. For example, when working with women who are pregnant and using substances, some people may want to judge.

WATCH

Please watch the following clip and answer the questions in the activity below.
NFB Video: Bevel Up-Becky and Liz

1.5C Activities

1. Brainstorm a list of society's attitudes towards pregnant women using substances.
2. How do you think moms who use substances might be judged by a healthcare provider?
3. How do you think moms who use substances might be judged by a workplace or by community services?
4. What risks can this lead to?
5. How can you support a mom who is using substances or has a substance use disorder?

Women are becoming increasingly at risk for substance use disorders; for example, the Canadian Centre on Substance Abuse has suggested women's use of alcohol has been on the rise since 2004.[13]

13. Canadian Centre on Substance Use and Addiction. (2004). *Girls, women and substance use.* https://www.ccsa.ca/sites/default/files/2019-05/ccsa-011142-2005.pdf

In 2020, "30.5% of women of reproductive age reported consuming alcohol weekly in the past year and 18.3% reported engaging in heavy alcohol consumption". [14]

Table 1 – Percentage of females and males who report past-year drinking, by sex, aged 15+, Canada NPHS* 1994-95, 1998-99, CAS* 2004**

	1994-95	1998-99	2004
Female	71.5	74.0	76.8
Male	79.8	82.2	82.0
8NPHS = National Population Health Survey ** CAS = Canadian Addiction Survey			

Food For Thought

- Why do you think women are increasing their substance use?
- Why do we need to know about women's drinking habits?
- Why do you think women are increasingly at risk of substance use disorders?

There are many issues to be aware of when it comes to gender and substance use. Whether providing support for women who have a substance use disorder or treatment for women's substance use disorders, Social Service workers must acknowledge the realities of women's lives, the stigma they face: "women with histories of addiction and incarceration face stigma regarding their roles in society, particularly with regard to their roles as mothers and women"[15] and the high prevalence of violence and other types of abuse.[16] Services must be comprehensive, from prevention through to treatment and recovery for women and girls, and should be based on a holistic and woman-centered approach that acknowledges their psychosocial needs.[17]

14. Varin, M., Palladino, E., Hill MacEachern, K., Belzak, L. & Baker, M. M. (2021). At a glance: Prevalance of alcohol use among women of reproductive age in Canada. *Health Promotion and Chronic Disease Prevention in Canada Journal, 41*(9), 267-272. https://doi.org/10.24095/hpcdp.41.9.04
15. Gunn, A. J., & Canada, K. E. (2015). Intra-group stigma: Examining peer relationships among women in recovery for addictions. *Drugs, 22*(3), 281–292. https://doi.org/10.3109/09687637.2015.1021241
16. Covington, S. (2008). Women and addiction: A trauma-informed approach. *Journal of Psychoactive Drugs, 40*(Sup5), 377-385. https://doi.org/10.1111/adb.12383
17. Covington, S. (2008). Women and addiction: A trauma-informed approach. *Journal of Psychoactive Drugs, 40*(Sup5), 377-385. https://doi.org/10.1111/adb.12383

1.6 THE LANGUAGE OF COMPASSION

The social determinants of health related to substance use are a complicated topic, and so is providing effective support. Social Service workers must be aware of these factors and "must be carefully chosen because of the sensitivity of the subject, and the associated pain and trauma experienced by the participants".[1] When we work with people who have substance use disorders we may feel tempted to "fix" the person. Your role as a Social Service worker is not to diagnose or treat but to provide support and appropriate referrals. One way to provide support is to use compassion.

Food For Thought

- What do you think compassion is?
- Why do you think compassion is important when discussing substance use?
- Why do you think compassion is important when working with clients?
- How can you demonstrate compassion?

To further understand being compassionate in your practice, please review this short video on how to be compassionate and supportive when working with people who use substances.[2]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=37#oembed-1

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=37#h5p-4

Being compassionate is important, it is also important to understand our boundaries. Investing much

1. Lee, B., Kellett, P., Seghal, K., & Van den Berg, C. (2018). Breaking the silence of racism injuries: A community-driven study. *International Journal of Migration, Health, and Social Care, 14*(1), 1-14. https://doi.org/10.1108/IJMHSC-01-2016-0003
2. Canadian Centre on Substance Use & Addiction. (2021). *My journey begins with compassion.* [Video]. Youtube. https://www.youtube.com/watch?v=RD0EOwWK8gI

time supporting an individual can be taxing and can result in compassion fatigue. "Compassion fatigue is a recent concept that refers to the emotional and physical exhaustion that affects helping professionals and caregivers over time".[3] Ensuring self care, including compassion for oneself, is one way to improve success in this field. At the end of each chapter there is a section called self-care. Each self-care section provides resources and activities that can improve mental health.

Food For Thought

- What are two ways you can prevent compassion fatigue?
- What was one learning from Chapter 1?
- What do you want to know more about?

For further information on the topics in Chapter 1, please review the Additional Resources section.

3. Jarrad, R., Hammad, S., Shawashi, T., & Mahmoud, N. (2018). Compassion fatigue and substance use among nurses. *Annals of General Psychiatry, 17*(13), https://doi.org/10.1186 /s12991-018-0183-5

1.7 SELF-CARE

Each chapter has a self care section because taking care of oneself is an important part of being an effective Social Service worker. In this self-care section we will be exploring strategies for coping while working in the field of substance use and living in the world of the Covid pandemic.

READ

Please take a moment to review the Health-Care Providers Infographic[1] by the Canadian Centre on Substance Use & Addiction.

- Try one of the strategies suggested.
- Report back on your experience.

1. Canadian Centre on Substance Use & Addiction. (2020). Managing stress anxiety and stress during Covid-19. https://www.ccsa.ca/sites/default/files/2020-04/CCSA-COVID-19-Stress-Anxiety-and-Substance-Use-Health-Care-Providers-Infographic-2020-en.pdf

ADDITIONAL RESOURCES

VIDEOS

The Urgency of Intersectionality TedTalk by Kimberlé Crenshaw via YouTube.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=42#oembed-1

SL Project Final by Nova Scotia health via Vimeo.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=42#oembed-2

Under the Rug by The Marguerite Centre via YouTube.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=42#oembed-3

Mi'kmaq Honour Song-Mi'kmaq Sign Language

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=42#oembed-4

Additional Resources

- Changing the Language of Addiction

A 2017 fact sheet created by the Canadian Centre on Substance Use and Addiction.

- Language Matters
  A combating stigma pamphlet created by the Canadian Commission on Mental Health.
- Stigmatizing Language Fact Sheet
  A 2018 fact sheet created by the Canadian Centre on Substance Use and Addiction.
- Systemic Racism in Canada's Healthcare System
  A research paper written by B. Gunn, University of Manitoba.
- Anti-Racism Resources
  Created by the Public Service Alliance of Canada, hosted on the Public Service Alliance of Canada website, Anti-racism Resources page.
- *White Privilege:* Unpacking the invisible knapsack by Peggy McIntosh
  White Privilege: Unpacking the Invisible Knapsack first appeared in Peace and Freedom Magazine, July/August, 1989, pp. 10-12, a publication of the Women's International League for Peace and Freedom, Philadelphia, PA.

CHAPTER 2: WHY PEOPLE USE SUBSTANCES

Learning Objectives

By the end of this chapter you should be able to:

1. Define substance use
2. Define substance use disorder
3. Discuss aspects of substance use
4. Discuss aspects of substance use disorders
5. Explore the role of substance use as culture/tradition
6. Describe the continuum associated with substance use
7. Define physical and psychological dependency

2.1 OVERVIEW

This section of our text will be an exploration of why people use substances. We will look at substance use within cultures, within age groups and the motivating factors behind substance use. We will begin to explore why people to continue to use substances and how substance use can develop into a substance use disorder.

What is substance use? Substance use is the use of a psychoactive substance (substances that impact the brain) by an individual, community, culture, or society. Why do we use substances? We use substances for many reasons. Psychoactive substances have been a part of human history for thousands of years, "as a species, humans have a fascination with any psychoactive agent that alters our basic perception of our environment".[1]

Historically, psychoactive substances have been used in religious ceremonies, for medicinal purposes, or by the general population in a socially approved way (drinking coffee). [2] According to Csiernik[3], archaeological evidence dating back to 10,000+ years shows evidence of the use of psychoactive substances used for both cultural purposes and recreational purposed. Betel seeds have been found in archeological sites on the continent of Asia[4] and alcohol was used in ancient Egypt and Rome.[5] Wine was introduced to European countries through the Roman expansion. "During the expansion of the Roman Empire, rural areas of west central Europe became Romanized. As a part of this process, indigenous inhabitants adopted some customs from urban Roman culture, including wine drinking with meals".[6] Tobacco was first introduced to Europeans shortly after Columbus' landfall in the Americas in 1492[7] and other substances we will explore also have rich histories with many uses and traditions. As noted, there are several reasons from historical, cultural, and medicinal as to why people use substances.

1. Csiernik, R. (2015). *Substance use and abuse: Everything matters* (2nd ed). Canadian Scholars Press.
2. Crocq, M. A. (2007). Historical and cultural aspects of man's relationship with addictive drugs. *Dialogues in Clinical Neuroscience, 9*(4), 355–361. https://doi.org/10.31887/DCNS.2007.9.4/macrocq
3. Csiernik, R. (2015). *Substance use and abuse: Everything matters* (2nd ed). Canadian Scholars Press.
4. Vetulani J. (2001). Drug addiction, part I: Psychoactive substances in the past and present. *Polish Journal of Pharmacology,* 53, 201–214. https://pubmed.ncbi.nlm.nih.gov/11785921/
5. Counsell, D. (2009). *Egyptian mummies and modern science*. Cambridge University Press. https://doi.org/10.1017/CBO9780511499654.014
6. Engs, R. (1991, April 27). *Romanization and drinking norms: A model to explain differences in western society*. Paper presented: Society of American Archaeology Annual Meeting.
7. Sadik, T. (2014, March 28). *Traditional use of tobacco among Indigenous Peoples of North America: A literature review.* https://cottfn.com/wp-content/uploads/2015/11/TUT-Literature-Review.pdf

2.1A ACTIVITIES

1. Brainstorm a comprehensive list of why people use substances.
2. Once your list is complete, arrange the reasons in a continuum from positive to negative based on your beliefs.
3. Reflect on the positive and negative. Who decides what is positive and negative?
4. What is "normal use"?
5. Research a culture/group that uses substances.

2.2 WHY DO PEOPLE USE SUBSTANCES

"I grew up around a family of smokers who gave cigarette smoking a classy edge. I would always be mimicking the adults by pretending to smoke. This is the introduction to me normalizing cigarettes and participating in the social norms of tobacco use".[1]

There are many reasons why people use psychoactive substances, from medicinal to religion to enjoyment. You may be wondering why; however, some people can use substances and have healthy relationships with substances yet do not develop a disorder while others do.[2] Watch the following video of Tyler Sullivan-King[3] who shares their story of using substances and developing a substance use disorder.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=49#oembed-1

Tyler's prescription for an opiate from an injury was a powerful experience with a powerful substance. Tyler also mentioned their environment as "not ideal". This combination of factors developed into a substance use disorder.

What is a substance use disorder (SUD)? A substance use disorder according to the American Psychiatric Association[4] is a "pattern of symptoms resulting from the use of a substance that you continue to take, despite experiencing problems as a result".[5] As with other diseases and disorders, the likelihood of developing a substance use disorder differs from person to person, and no single factor determines whether a person will develop a substance use disorder.[6] In general, the more *risk*

1. Lee, B., Yanicki, S., & Solowoniuk, J. (2011). Value of a health behavior change reflection assignment for health promotion learning. *Education for Health, 24*(2), 509. http://www.educationforhealth.net/
2. Schwab, J. (2021). Drugs, health and behaviour. Pressbooks. https://psu.pb.unizin.org/bbh143/chapter/drugs-and-the-brain-national-institute-on-drug-abuse-nida/
3. City of Hamilton. (2019, Novmber 18). #SeeThePerson - Tyler. YouTube. https://www.youtube.com/watch?v=J2OcFc-_bac
4. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596.
5. Ibid, p. 175
6. Schwab, J. (2021). Drugs, health and behaviour. Pressbooks. https://psu.pb.unizin.org/bbh143/chapter/drugs-and-the-brain-national-institute-on-drug-abuse-nida/

factors a person has, the greater the chance that taking substances may lead to substance use and a SUD. "Risk factors are those that make drug use *more* likely".[7] *Protective factors,* on the other hand, "are those associated with reduced potential for drug use".[8]

Key Risk and Protective Factors for Drug Use[9]

Catagories/Domains	Risk Factors	Protective Factors
Community	• Community disorganization • Laws and norms favorable to drug use • Perceived availability of drugs	• Community cohesion • Community norms not supportive of dru
School	• Academic failure • Little commitment to school	• Participation in school activities • School bonding
Family	• Parental attitudes favorable to drug use • Poor family management • Family history of antisocial behavior	• Family sanctions against use • Positive parent relationships
Peer/Individual	• Early initiation of antisocial behavior • Attitudes favorable to drug use • Peer drug use	• Positive peer relationships • Network of non-drug using peers

According to this research, "for individuals who begin using illicit substances at an early age, several risk factors may increase the likelihood of continued and problematic use in later ages".[10]

Please watch this video from the Canadian Centre on Substance Use and Addiction[11] exploring the power of protective factors in lifetime wellness.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=49#oembed-2

7. Public Safety Canada. (2018). *School-based drug abuse prevention: Promising and successful programs*. https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/sclbsd-drgbs/index-en.aspx
8. Public Safety Canada. (2018). *School-based drug abuse prevention: Promising and successful programs*. https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/sclbsd-drgbs/index-en.aspx
9. Public Safety Canada. (2018). School-based drug abuse prevention: Promising and successful programs. https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/sclbsd-drgbs/index-en.aspx
10. Ibid, para. 1
11. Canadian Centre on Substance Use and Addiction. (2021). *Community connections supporting lifetime wellbeing.* [Video]. Youtube. https://www.youtube.com/watch?v=1Hj06BlVrnI

2.2A ACTIVITIES

1. Review the risk and protective factors.
2. Reflect on the social determinants of health. How many of these risks or protective factors can you identify relate to the social determinants of health?
3. Reflect on Tyler: can you identify any risk factors that may have impacted his development of a substance use disorder?
4. Why do you think those with all the risk factors may not develop a substance use disorder?
5. On the other hand, why might someone who has all the protective factors develop a substance use disorder?

In Canada, there is a social acceptance within many cultures around the use of substances, including weddings, graduations, funerals, celebrations.

2.2B ACTIVITIES

1. Reflect on the social acceptance of substances. Name the activities that accept substances.
2. Reflect on how companies promote the use of alcohol through the media.
3. What is the narrative you have heard about using alcohol throughout the lifespan?
4. Substance abuse and dependency is stigmatized, yet alcohol use is often culturally accepted. Why is that?
5. Choose a "normal" day and make note of how many advertisements you see for substances. Categorize them into medication, alcohol, and cannabis. What are the numbers? What does this suggest?

There are many reasons why societies, cultures and people use substances. As Social Service workers you may have the opportunity to explore an individual's journey, using your individual helping skills. You may have the opportunity to engage with a community, focusing on a specific group of people. For example, you may be working with a school, developing a survey on substance use among the youth. What types of interventions might you explore based on what you know about why people use substances? Be prepared, as you have learned, to explore every story, from a lens of "nothing about us, without us". The individual and the community must be the leader in their stories.

CHAPTER CREDIT

Adapted from Unit 6.1, and 6.2 in Drugs, Health & Behavior by Jacqueline Schwab, licensed under a CC BY-NC-SA license.

Updated with Canadian Content.

2.3 WHY DO PEOPLE CONTINUE TO USE SUBSTANCES

Why do people *continue* to use substances, as part of a substance use disorder? You may think of substance use as a habit, as something that gets reinforced through daily repetitions and habits.

Food For Thought

- Reflect on a "normal day". What do you do from the moment you wake until the moment you go to sleep? Are any of these activities' habits?
- Identify the habits you have?
- Do you think these are healthy or unhealthy habits? Why do you believe this to be so?
- How does this habit make you feel? Why?
- Have you ever tried to change a habit? Were you successful? How?
- Reflect on a negative habit you currently have. Where does this habit come from? What does this habit solve for you? Have you ever thought about changing it? What would it take to change it?

A substance use disorder is an *unhealthy* habit and every time a person uses a substance (repetition) it causes a reaction in both the body (physical) and the mind (psychological). The substance use is pleasurable, and the repetition can work like an enforcer, drilling those habits deeper and deeper. In time, through the repetition of use and the reinforcement of the habit, this can make the substance use a very difficult habit to break. The habit may become both physical and psychological.

2.3A ACTIVITIES

1. Brainstorm all the ways you think a person can become physically dependent on a drug and review with your class.
2. Brainstorm all the ways you think a person can become psychologically dependent on a drug and review with your class.
3. Compare and contrast your ideas from your brainstorm.

WHAT IS PHYSICAL DEPENDENCE?

What is physical dependence? Physical dependence is "a physiological state of cellular adaptation occurring when the body becomes so accustomed to a drug that it can only function normally when the drug is present". [1] This means without the substance in the body, the body simply does not function "normally". When someone experiences these symptoms, it is called withdrawal. This can include shaking or trembling, nausea, cramping, muscle spasms and more. People who have a substance use disorder may experience withdrawal, "the development of physical disturbances or physical illness when drug use is suddenly discontinued in the opposite direction to the original effects of the drug". [2] This is the body's physical response to the absence of the drug. Withdrawal can range from discomfort to death, depending on the physical dependence (how long a person was using a substance, how often) and the type of substance a person is using. All these factors will impact their withdrawal, for example, withdrawal from opioids is different than withdrawal from alcohol. When working with people in withdrawal, it is important to remember it is painful, for both physical and psychological reasons.

With physical dependence also comes tolerance. Tolerance is the "body's adaption to the presence of the drug requiring increased amounts to produce the same outcome as originally experienced.[3] This means that over time it takes more of the substance or drug to produce the same feeling. This has been known as "chasing the dragon".

2.3B ACTIVITIES

1. Brainstorm a comprehensive list of factors that impact tolerance.
2. Why do you believe some people develop a tolerance to substances quicker than others? Discuss with your classmates.

WHAT IS PSYCHOLOGICAL DEPENDENCE?

What is psychological dependence? Individuals who have a substance use disorder may also develop a psychological dependence. When you reviewed the activity exploring your habits, perhaps you determined a habit you engage in makes you feel happy. A psychological dependence is the "mind need" for a substance, "a drug becomes so important to a person's thoughts or activities that the person believes that he or she cannot manage without the substance". [4] There is also the belief that persons with substance use disorders

> suffer in the extreme with their feelings, either being overwhelmed with painful affects or

1. Csiernik, R. (2015). *Substance use and abuse: Everything matters* (2nd ed.), (pp 19). Canadian Scholars Press.
2. Ibid, p. 31
3. Ibid, p. 29
4. Ibid, p. 20

seeming not to feel their emotions at all. Substances of abuse help such individuals to relieve painful affects or to experience or control emotions when they are absent or confusing.[5]

In this case, a person simply wants to numb their emotional pain and knows that by using and continuing to use a substance their pain can be numbed. Psychological dependence is just as intense as physical dependence, if not more so. If you believe you need a particular substance to manage your daily life, the withdrawal from that substance can be difficult.

2.3C ACTIVITIES

1. What have you heard about withdrawal?
2. What types of substances do you think create physical withdrawal?
3. What types of substances create psychological withdrawal?
4. Do you think physical or psychological is more intense? Why?

Both physical and psychological withdrawal may be reasons why a person continues to use substances, and /or experiences a substance use disorder. According to the American Psychiatric Association[6] to diagnose a substance use disorder a person must have dependence and have experienced withdrawal. This would include substances like alcohol, heroin, cocaine, and even cannabis, which was a recent addition to the DSM-V. Withdrawal, both physical and psychological can be quite painful, particularly for people who are using opiates. Let's watch the John Lenec discuss his experiences with opioid use and withdrawal.[7] Note the language used by the Canadian Press. How might you change this language to reduce stigma?

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=51#oembed-1

What did you notice? What were the physical symptoms of withdrawal John discussed? What were the psychological symptoms of withdrawal John mentioned? The symptoms of withdrawal may prevent some people from reducing or stopping their substance use. The table below indicates

5. Khantzian, E. J. (1997). The self-medication hypothesis of substance use disorders: A reconsideration and recent applications. *Harvard Review of Psychiatry, 4*(5) 231-244. https://pubmed.ncbi.nlm.nih.gov/9385000/
6. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596
7. Canadian Press. (2016, December 21). *You think you're dying': Ex-Heroin user on withdrawal.* [Video]. YouTube. https://youtu.be/Zks_fdt-aHY

a number of substances. Please review the types of dependence for the most commonly used substances.

Psychoactive Substances Dependence Chart[8]

Drug	Dangers and Side Effects	Psychological Dependence	Physical Dependence
Caffeine	May create dependence	Low	Low
Nicotine	Has negative health effects if smoked or chewed	High	High
Cocaine	Decreased appetite, headache	Low	Low
Amphetamines	Withdrawal accompanied by severe "crash" (depression) as effects wear off, particularly if smoked or injected	Moderate	Low
Alcohol	Impaired judgment, loss of coordination, dizziness, nausea, and eventually a loss of consciousness	Moderate	Moderate
Barbiturates and benzodiazepines	Sluggishness, slowed speech, drowsiness, in severe cases, coma or death	Moderate	Moderate
Toxic inhalants	Brain damage and death	High	High
Opium	Side effects include nausea, vomiting, tolerance, and addiction.	Moderate	Moderate
Morphine	Restlessness, irritability, headache and body aches, tremors, nausea, vomiting, and severe abdominal pain	High	Moderate
Heroin	All side effects of morphine	High	Moderate
Marijuana	Mild intoxication; enhanced perception	Low	Low
LSD, mescaline, PCP, and peyote	Hallucinations; enhanced perception	Low	Low

It is important to note cannabis is not indicated above; however, in the DSM-V it is included as a substance with psychological dependence as people can experience withdrawal. Were you surprised by any of the states of dependence for any of the substances? The dependence on a substance is one factor that can keep people in a cycle of use. Uncomfortable withdrawal may make it difficult to go to school, work, or take care of a family. In some cases, it is extreme, as mentioned in the video.

Are you a regular coffee drinker? Have you ever tried to give up coffee? Did you experience any symptoms? Do you smoke tobacco? Have you tried quitting? What was that like? When we think about substance use and withdrawal, we may immediately go to substances we see in the media, like heroin and cocaine. It is important to note, based on the chart above, every substance is different, and psychological and physical dependence will be experienced differently depending on the substance and the person who uses it.

2.3D ACTIVITIES

Based on what you learned about physical and psychological dependence, as well as all the reasons people use substances, brainstorm:

8. Schwab, J. (2021). *Drugs, health & behaviour.* Pressbooks. https://psu.pb.unizin.org/bbh143/chapter/altering-consciousness-with-psychoactive-drugs/

1. Reasons why individuals start using substances
2. Reasons why individuals continue/maintain use
3. Reasons why individuals escalate/increase frequency or amount of substance use
4. Reasons why individuals stop using substances
5. Reasons why individuals start using substances again
6. Group reasons in two charts, positive and negative.
7. Identify 1 resource that could provide support for each reason.

All substances have *some* risk, as they impact our body and brain in different ways. In Chapter 3 we will examine the various substances, their origins and their impact on the body and mind.

CHAPTER CREDIT

2.4 CONCURRENT DISORDERS

We all have mental health, like we all have physical health. Our mental health is shaped by many factors, including "our social, economic, and physical environments". [1] It can depend on what we are experiencing at any moment, our ability to cope and our ability to be resilient. Reflect on the reasons why people use substances. As we have explored, not all substance use will develop into a substance use disorder. There are many reasons why people use substances, one reason you may not have explored is mental health. Mental health is one of the social determinants of health, and good or poor mental health does play a role in a person's substance use.

There are many individual factors that make people vulnerable or resilient to a substance use disorder.[2] When we look at these characteristics, they may include positive self-image, self-control, or social competence as well as chronic illness, poverty, and homelessness.[3] You may start to see a connection between mental health and substance use. There is a direct relationship (sometimes called a correlation) between mental health disorders and substance use disorders.

Sad woman drinking wine. Credit: Zachary Kadolph

1. World Health Organization. (2014). *Social determinants of mental health,* (p. 8). https://apps.who.int/iris/bitstream/handle/10665/112828/9789241506809_eng.pdf
2. Substance and Mental Health Services Association. (n.d.). *Risk and protective factors.* https://www.samhsa.gov/sites/default/files/20190718-samhsa-risk-protective-factors.pdf
3. Mawani, F. N., & Gilmour, H. (2010). *Validation of self-rated mental health*. Statistics Canada. https://www150.statcan.gc.ca/n1/en/pub/82-003-x/2010003/article/11288-eng.pdf?st=SgFoG2gh

Two happy men drinking beer. Credit: Dylan Sauerwein

This is different than someone using a substance because of how they are feeling. Emotions like happiness and sadness may be a reason why someone uses a substance, for example having a drink at a social event. The difference between mental health and a mental health disorder, for example, depression, is that the mental health disorder is a diagnosable illness, like a substance use disorder. Healthcare practitioners use the DSM-V to diagnose mental health disorders, like substance use disorders. Some of the people you will meet will be living with mental health disorders AND substance use disorders; this may be called a concurrent disorder, or a dual diagnosis. People who have a concurrent disorder may experience a "combination of problems, such as: anxiety disorder and an alcohol problem, schizophrenia and cannabis dependence, borderline personality disorder and heroin dependence, and bipolar disorder and problem gambling". [4]

Which comes first, mental health or substance use? There are researchers on both sides of this argument. According to the Canadian Mental Health Association, "people who experience problems with alcohol or drug use are more likely to be diagnosed with a mental illness and people who experience a mental illness are more likely than others to also experience a substance use problem". [5] What we do know empirically, which means through research and observation, is mental health disorders and substance use disorders are related, regardless of which came first.

Food For Thought

- Reflect on a mental health disorder and substance use disorder. Why do you think they are related?

4. Centre for Addiction and Mental Health. (2021). *Concurrent disorders,* (para. 1). https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/concurrent-disorders
5. Canadian Mental Health Association. (2018, December 4). *Concurrent mental illness and substance use problems,* (para. 2). https://cmha.ca/brochure/concurrent-mental-illness-and-substance-use-problems/

- Why do you think people who have mental health disorders use substances?
- What role do you think early diagnosis of a mental health disorder plays in the development of a substance use disorder? Why?

Please watch this video by Royal Talks, which helps explain the concurrent disorders and the importance of support for improved health outcomes.[6]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=55#oembed-1

The risks of developing a substance use disorder if you have been diagnosed with a mental health disorder are high. According to the Mental Health Commission of Canada, "people living with mental illness are twice as likely as other Canadians to experience problematic substance use".[7] When we dig further into mental health disorders and look at specific disorders, Buckley et al.[8] suggest at least 50% of people who have been diagnosed with schizophrenia have a co-occurring substance use disorder.

Mental illness can impact anyone at any time; however, "70% of mental health problems have their onset during childhood or adolescence"[9] making substance use among youth especially problematic. If a young person is using substances to reduce the impacts of a mental health disorder, it is critical the mental health disorder be diagnosed early, so the appropriate treatments can be implemented, and the outcomes can improve. Early intervention programs that diagnose mental health disorders, along with programs to improve mental health, reduce risks for developing a substance abuse disorder. Promoting mental health, preventing mental health disorders, and preventing substance use are part of Health Canada's focus on helping to "prevent, treat or reduce the harms associated with opioids, stimulants, alcohol, prescription drugs, and other potentially harmful substances".[10]

One way we can support individuals with concurrent disorders is to ensure they have access to appropriate resources, and the resources are working in collaboration.

Food For Thought

6. Royal Talks. (2019). *Connections between substance use & mental health and identifying ways of getting help*. [Video]. Youtube. https://www.youtube.com/watch?v=IWhmc0tAuqc
7. Mental Health Commission of Canada (2021). *Mental health and substance use,* (para. 1). https://mentalhealthcommission.ca/what-we-do/mental-health-and-substance-use/
8. Buckley, P. F., Miller, B. J., Lehrer, D. S., & Castle, D. J. (2009). Psychiatric comorbidities and schizophrenia, *Schizophrenia Bulletin, 35*(2), 383–402. https://doi.org/10.1093/schbul/sbn135
9. Canadian Scholars Press.Government of Canada. (2006). *The human face of mental health and mental illness in Canada*. Public Health Agency of Canada. https://www.phac-aspc.gc.ca/publicat/human-humain06/pdf/human_face_e.pdf
10. Government of Canada. (2021). *Substance use and addictions program.* https://www.canada.ca/en/health-canada/services/substance-use/canadian-drugs-substances-strategy/funding/substance-use-addictions-program.html#wb-auto-4

- Reflect on collaboration.
- What does collaboration mean to you?
- What is one strategy you could use to ensure collaboration with a community agency or healthcare provider?

As Social Service workers it is important to be aware of any diagnosis your client may have. This will help you direct clients to appropriate services for their health.

2.4A ACTIVITIES

1. Imagine you are working with a client who lives with depression and has an alcohol disorder.
2. Brainstorm a list of resources that would be appropriate to address their concurrent disorder.
3. Why did you choose these resources?
4. What resources could you direct family members to if requested?
5. Why is it important to be aware of family supports?

Try this quiz to check your learning on Chapter 2 thus far.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=55#h5p-5

IMAGE CREDITS

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2.5 THE STAGES OF CHANGE

Now that you have a deeper understanding of why people use substances, we can explore the various stages in which they may use substances or choose to change their substance use. In 1984, Prochaska and Diclemente developed a model to explore change among people who smoked tobacco and who wanted to quit.[1] They determined change happens in different stages and at each stage has different internal motivators and different tasks. Prochaska and DiClemente's Transtheoretical Model of Change or the Stages of Change is used when working with people who live with a substance use disorder.[2] This model can also be used for other health interventions including diabetes management, high blood pressure, and high cholesterol. "Change interventions are especially useful in addressing lifestyle modification for disease prevention, long-term disease management and addictions".[3]

People living with a substance use disorder may not be ready to acknowledge their habits, particularly when it comes to their substance use. Understanding where a person may place themselves on this model is helpful for you as a Social Service worker and for them. This will help you and them develop strategies to move through the stages, if reduction in use, change in substance, harm reduction, or recovery is something they would like to achieve. This is important to note, **this is their choice**, not yours and whatever changes they make, if any, are their decision.

How do you use this model? The graphic below indicates the stages of change; note the arrows. There is no beginning or end; this is because people can start making changes at any time. People may also skip through stages. When using this model, it is important to be nonjudgmental and supportive at each stage.

Circle diagram of the states of change: precontemplation (not ready for change), contemplation (getting ready), decision (ready), action, maintenance, relapse. There are two arrows on either side of the circle indicating a cycle.

Diagram of the states of change. Credit: Lunn et. al.

Now that you have viewed the stages of change, let's explore each stage individually.

Pre-contemplation: Remember when you reflected on your habits? Had you thought about what you were doing every day? If not, that's ok! This is the stage that we called pre-contemplation, it is the stage where you are doing what you do, without considering making any changes. You may feel comfortable or confident in the choices you are making. You may also see your choices as helpful. In the context of substance use, we know people use substances for many reasons. Imagine someone who has experienced trauma and is using substances to cope. In pre-contemplation they may see their

1. Boston University School of Public Health. (2019). *The transtheoretical model (stages of change)*. https://sphweb.bumc.bu.edu/otlt/mph-modules/sb/behavioralchangetheories/behavioralchangetheories6.html
2. Boston University School of Public Health. (2019). *The transtheoretical model (stages of change)*. https://sphweb.bumc.bu.edu/otlt/mph-modules/sb/behavioralchangetheories/behavioralchangetheories6.html
3. Zimmerman, G. L., Olsen, C. G., & Bosworth, M. F. (2000). A 'Stages of change' approach to helping patients change behavior. *American Family Physician, 61*(5), 1409-1416. https://www.aafp.org/afp/2000/0301/p1409.html

substance use as the only way to cope, in which case they are not prepared to make a change. They may have also tried changing many times and have simply given up.

2.5A ACTIVITIES

1. How could you determine if a client is in pre-contemplation?
2. What are three questions you could ask a client who you believe is in pre-contemplation?
3. What should you be aware of in this stage?

Contemplation: In this stage, people have *acknowledged* there is a habit or a behaviour that is not a healthy behaviour, but they are not yet prepared to make a change. The thought of making a change may cause a person to begin to feel pain. This could be fear of the loss of the behaviour, it could be fear of withdrawal. At this stage you may see individuals develop barriers to change, for example using terms like "I know, but…". The person may also see the benefits of change but are ambivalent about making that change.

2.5B ACTIVITIES

1. How could you determine if a client is in contemplation?
2. What are three questions you could ask a client who you believe is in contemplation?
3. What should you be aware of in this stage?

Decision (also called Preparation): In this stage, the behaviour has been acknowledged and the person has made the decision to make a change. It may be a small change, for example, a reduction in the amount of substance used, or the type, it could be a change in behaviour (safer injection). Whatever the change, it is exciting to get to this stage, as it is a critical stage for a person with a substance use disorder. The person has moved from ambivalence to planning to change. This is also a critical stage for you, the Social Service worker. This is an opportunity to reflect on the behaviour of the individual and develop a set of goals. Starting small is helpful, rather than going "cold turkey". Whatever the goal is, it is the choice of the individual and respecting the goal is paramount to building a relationship. The preparation stage is simply planning, so using a SMART goal model may be helpful.

2.5C ACTIVITIES

1. How could you determine if a client is in preparation?
2. What are three questions you could ask a client who you believe is in preparation?
3. What should you be aware of in this stage?

Action: You have helped your client set goals, now they are going to do the work to achieve them. This can be the easy period in some cases, there is excitement and hope. In the first few days of the action phase, people with substance use disorders should receive a lot of encouragement. This may be the first time or the fiftieth time a person has tried to change their behaviour; every time should be praised.

2.5D ACTIVITIES

1. How could you determine if a client is in action?
2. What are three questions you could ask a client who you believe is in action?
3. What should you be aware of in this stage?

Maintenance: This is the make-or-break stage, as the person with the substance use disorder is maintaining their behavioural change, whether a reduction in the amount of substance use, a reduction in risky behaviours, a change in substances or whatever their initial goal was. Continuing to encourage and praise is helpful in this stage. Peer support can be very helpful in the maintenance phase, and programs like AA and NA that use a peer support model that allow for check in's can be helpful for some people. Being able to provide appropriate referrals to other services is helpful in the maintenance phase.

2.5E ACTIVITIES

1. How could you determine if a client is in maintenance?
2. What are three questions you could ask a client who you believe is in maintenance?

3. What should you be aware of in this stage?

Relapse: Relapse is part of substance use disorders, which is why it is part of the model. While we want to help people prevent relapse, depending on their life circumstances, relapse may happen frequently or infrequently. We are there to help individuals understand that relapse is ok, and don't quit quitting! If we discourage an individual, they may give up entirely. The reality is many individuals will go through the stages of change more than once. Just like you, it takes time to make a change. Reflect on your habits and any habits you have tried to change. If you were successful the first time, congratulations! If not, you're human!

WHAT ARE SMART GOALS?[4]

- Statements of the important results you are working to accomplish.
- Designed in a way to foster clear and mutual understanding of what constitutes expected levels of performance and successful professional development.

WHAT IS THE SMART CRITERIA

S	Specific	What will be accomplished? What actions will you take?
M	Measurable	What data will you measure? How much? How well?
A	Achievable	Is the goal doable? Do you have the necessary skills and resources?
R	Relevant	How does the goal align with broader goals? Why is the result important?
T	Time-Bound	What is the time frame for accomplishing the goal?

2.5F ACTIVITIES

1. Review the SMART goal model.
2. Review the website Addiction Rehab Toronto
3. Brainstorm any missing concerns you think would be important to include.

4. University of California. (2017). Smart goals: A how to guide. https://www.ucop.edu/local-human-resources/_files/performance-appraisal/How%20to%20write%20SMART%20Goals%20v2.pdf

4. Imagine you are providing a program for women with substance use disorders. What would you need to do to ensure your program meets UNODC recommendations?

For a exploration on how to use the Stages of Change to help people quit smoking, let's watch this video narrated by Dr. Mike Evans.[5]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=58#oembed-1

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=58#h5p-6

Now that we understand the reasons why people use substances, we will move forward into understanding substances and their impacts on the brain and body in Chapter 3. If you would like more information on why people use substances and substance use disorders, as well as concurrent disorders, check out the additional resources.

IMAGE CREDITS

Diagram of the states of change from: Lunn, S., Restrick, L. & Stern, M. (2017). *Managing respiratory disease: The role of a psychologist within the multidisciplinary team.* Chronic Respiratory Disease, 14, 45-53. https://www.researchgate.net/figure/Stages-of-change-model-as-in-the-study-of-Prochaska-and-DiClemente-56_fig1_314110814

5. Centre for Addiction and Mental Health. (2013). *Quitting smoking is a journey.* [Video]. Youtube. https://www.youtube.com/watch?v=nyIJo7VCdPE

2.6 SELF CARE

In the past few decades, the concept of mindfulness has been enjoying a boom in popularity with many people endorsing its power to improve health and well-being.

LISTEN

This self care module Brief Meditation: Arriving in Mindful Presence – (5 min) will provide you with a mindfulness activity, facilitated by Tara Brach.[1]

To give mindfulness a chance, try practising the brief meditation activity below at least 5 times per week. Note how you are feeling, your location and the time of day you practice.

1. Brach, T. (2021). *Brief meditation: Arriving in mindful presence* [Video]. https://www.tarabrach.com/brief-meditation-5-minute/

Additional Resources

- Testimonials on substance use videos
  Government of Canada website on the Opioid Crisis
- A family guide to concurrent disorders
  A 2007 guide created by the Centre for Addiction and Mental Health with information about how you can support families
- Performance Management Tool for Withdrawal Management (Behavioural Competencies for Canada's Substance Use Workforce)
  A 2021 manual written by the Canadian Centre on Substance Use and Addiction.
- Canadian resources on help for substance use
  Government of Canada resources posted on the Health Canada website pages on Substance Use.

CHAPTER 3: WHAT ARE PSYCHOACTIVE SUBSTANCES?

Learning Objectives

By the end of this chapter you should be able to:

- Identify substance classification groupings
- Define terminology related to substance
- Discuss substance interactions and multi-substance use
- Discuss the medical usefulness of psychoactive substances

3.1 OVERVIEW

Let's start Chapter 3 with a little quiz

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=68#h5p-7

Cappuccino Art. Credit: Drew Coffman

Who knew that a cup of coffee could be a work of art? A talented barista can make coffee look as good as it tastes. According to the Coffee Association of Canada, 2/3 of all Canadians drink at least one cup of coffee a day.[1] That is a lot of "jo"! If you are a coffee drinker, what is it about the coffee that you enjoy? Perhaps it is the heat of the beverage, which feels nice during our long Canadian winters. Maybe it is how it makes you feel? Coffee can make you more alert, and it may improve your concentration. That is because the caffeine in coffee is a psychoactive substance. In fact, "caffeine is the most widely consumed psychoactive substance in the world".[2] Along with caffeine there are numerous other psychoactive substances, this is what we will explore next.

3.1A ACTIVITIES

- Brainstorm a list of terms you have heard for psychoactive substances.
- Do you think psychoactive substances should be controlled? Why or why not?

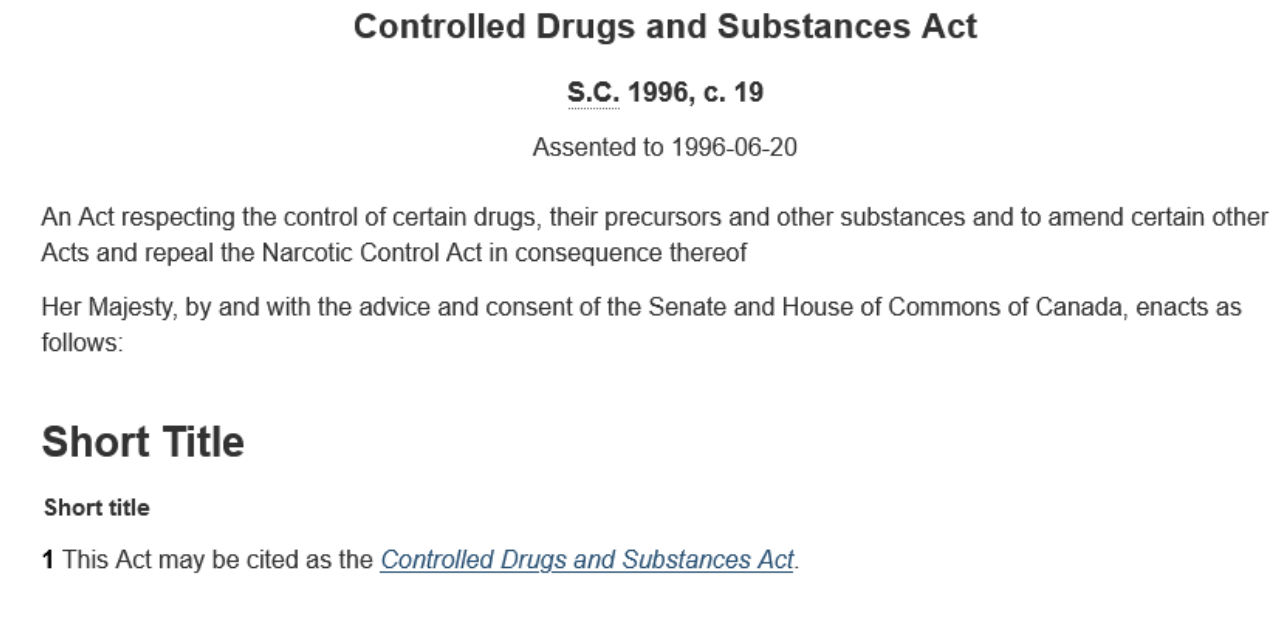
What is a psychoactive substance (drug)? Psychoactive substances change the function of the brain and result in alterations of mood, thinking, perception, and/or behaviour. Psychoactive substances

1. Coffee Association of Canada. (2018). *Coffee facts.* https://coffeeassoc.com/coffee-facts/
2. Centre for Addiction and Mental Health. (2021). *Caffeine,* (para. 12). https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/caffeine

may be used for many purposes, including therapeutic, ritual/cultural, or recreational purposes. Psychoactive substances come in many forms and are identified in many ways. Uppers, downers, X, bennies, oxy or whatever street name you may have heard or use, these are all examples of what are commonly known as street drugs. In fact, when most people mention the word drug, they will think of street drugs. We use the term psychoactive substance or substance, rather than drug in this text. This is to reduce some of the stigma associated with the term "drug" or "drug user".

There are many psychoactive substances you can purchase legally at your neighbourhood coffee spot or gas station, pharmacy, or local liquor store. What is the difference between these substances? Why are some psychoactive substances considered legal and others illegal? Why are some substances controlled and others not? This is where we will explore the various categories of psychoactive substances, look at where these substances come from, how they are made and how they can be obtained (prescription, over-the-counter, supplements, in a store, coffee spot, mini mart or on the street.

In Canada, psychoactive substances are controlled by the Controlled Drug and Substances Act (CDSA).



Controlled Drugs and Substances Act

S.C. 1996, c. 19

Assented to 1996-06-20

An Act respecting the control of certain drugs, their precursors and other substances and to amend certain other Acts and repeal the Narcotic Control Act in consequence thereof

Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

Short Title

Short title

1 This Act may be cited as the *Controlled Drugs and Substances Act*.

Controlled Drugs and Substances Act. Credit: Screenshot of Government of Canada Legislation. Long Description.

Health Canada administers the CDSA and its regulations to:

- allow access for lawful purposes;
- reduce the risk that controlled substances and precursors will be used for illegal purposes.[3]

Lawful purposes include using substances like aspirin or ibuprofen for aches and pains as well as any medication that may have been prescribed to you.

Food For Thought

3. Government of Canada. (2021). *Controlled drug and substances act.* https://laws-lois.justice.gc.ca/eng/acts/c-38.8/

- Do you think prescription medication is without risk? Why or why not?
- Why do you think some substances require a prescription?

Let's check out the list below and take a look at some of the most commonly used psychoactive substances. You will note some of these substances are "scheduled" by the CDSA, which means they are controlled substances and are associated with laws in Canada. A controlled substance means a substance included in Schedule I, II, III, IV or V and except as authorized under the regulations, no person shall possess a substance included in Schedule I, II or III unless prescribed from a licensed physician.[4]

While you may dig deeper into the schedule of substances, for the purpose of this text the psychoactive substances we will explore have all been grouped into 5 categories based on their impact on the body, rather than their schedule according to the CDSA.[5]

Depressants

1. Alcohol
2. Barbiturates (schedule 4)
3. GHB/Rohypnol (schedule 4)

Stimulants

1. Caffeine
2. Nicotine
3. Cocaine (schedule 1)
4. Amphetamine (schedule 1)
5. Ecstasy (schedule 3)

4. Ibid.
5. Ibid.

Hallucinogens

1. Psylocibin mushrooms (schedule 3)
2. Cannabis
3. LSD (schedule 3)
4. Mescaline (schedule 3)

Opiates

1. Morphine (schedule 1)
2. Oxycodone (schedule 1)
3. Fentanyl (schedule 1)
4. Heroin (schedule 1)
5. Carfentanil (schedule 1)

Psychotherapeutic agents

1. Valium (schedule 4)
2. Efexor (schedule 4)
3. Anabolic steroids (schedule 4)

3.1B ACTIVITIES

1. Watch the following educational playlist from Bevel Up. https://www.nfb.ca/film/topics-

street-drugs-101/

2. What did you learn about methadone? Do you believe methadone can help everyone who uses opiates? Why or why not?
3. What is one thing you learned about multi-substance use?
4. Choose a category of psychoactive substances and become a subject matter expert (SME). Once you have learned everything you can about this category, choose another category. Compare and contrast categories and two substances in each category.
5. What stood out to you?
6. What do you want to know more about?

For more information on these substances and others, check out the Centre for Addiction and Mental Health.

CHAPTER CREDIT

Adapted from 8.8 Psychoactive Drugs by CK-12 Foundation contained in *Human Biology* by Christine Miller published by Thompson Rivers University. CC BY-NC . This unit is updated with new Canadian content.

IMAGE CREDITS

- Cappucino Art by Drew Coffman / Unsplash License
- Government of Canada. (2021). *Controlled drug and substances act [screenshot].* Justice Laws website. https://laws-lois.justice.gc.ca/eng/acts/c-38.8/

3.2 OPIOIDS (AN OVERVIEW)

Opioids are a category of psychoactive substance that refer to substances derived from opium, opium derivatives, and their semi-synthetic substitutes. Examples you may be aware of include heroin, morphine, methadone and fentanyl.

WHAT IS THEIR ORIGIN?

The poppy Papaver somniferum is the source of all-natural opioids, whereas synthetic opioids are made entirely in a lab and include meperidine, fentanyl, and methadone Semi-synthetic opioids are synthesized from naturally occurring opium products, such as morphine and codeine, and include heroin, oxycodone, hydrocodone, and hydromorphone.

WHAT DO THEY LOOK LIKE?

Opioids come in various forms, including tablets, capsules, skin patches, powder, chunks in varying colors (from white to shades of brown and black), liquid form for oral use and injection, syrups, suppositories, and lollipops. Opioids can be swallowed, smoked, sniffed, injected or used transdermally.

Narcotics, Drugs of Abuse (2017). United States Drug Enforcement Administration

WHAT IS THEIR EFFECT ON THE BRAIN?

Besides their medical use, opioids produce a general sense of well-being by reducing tension, anxiety, and aggression. These effects are helpful in a therapeutic setting but contribute to misuse. Opioid use comes with a variety of unwanted effects, including drowsiness, inability to concentrate, and apathy.

WHAT IS THEIR EFFECT ON THE BODY?

Opioids are prescribed to treat pain, suppress a cough, cure diarrhea, and put people to sleep. Effects depend heavily on the dose, how it is taken, and previous exposure to the substance. Negative effects include slowed physical activity, constriction of the pupils, flushing of the face and neck, constipation, nausea, vomiting, and slowed breathing. As the dose is increased, both the pain relief and the harmful effects become more pronounced. A single dose can be lethal to an inexperienced person or someone who has been in recovery.

DEPENDENCE

Continuing use of opioids can create both physical and psychological dependence. Physical dependence is a consequence of chronic opioid use, and withdrawal takes place when the use is discontinued. The intensity and character of the physical symptoms experienced during withdrawal are directly related to the substance, the daily amount used, the interval between doses, the duration of use, and the health and personality of the person using the opiate. These symptoms usually appear shortly before the time of the next scheduled dose, increasing dependence.

Early withdrawal symptoms often include watery eyes, runny nose, yawning, and sweating. As the withdrawal worsens, symptoms can include: Restlessness, irritability, loss of appetite, nausea, tremors, drug craving, severe depression, vomiting, increased heart rate, and blood pressure, and chills alternating with flushing and excessive sweating. Without intervention, the withdrawal usually runs its course, and most physical symptoms disappear within days or weeks, depending on the particular substance. Withdrawal is extremely uncomfortable, and is one reason why people continue to use opioids. Long after the physical need for the substance has passed, people may continue to think and talk about using and feel overwhelmed coping with daily activities. Relapse is common if there are no changes to the physical, biological, social, or other factors that contributed to the use/abuse of the opioid.

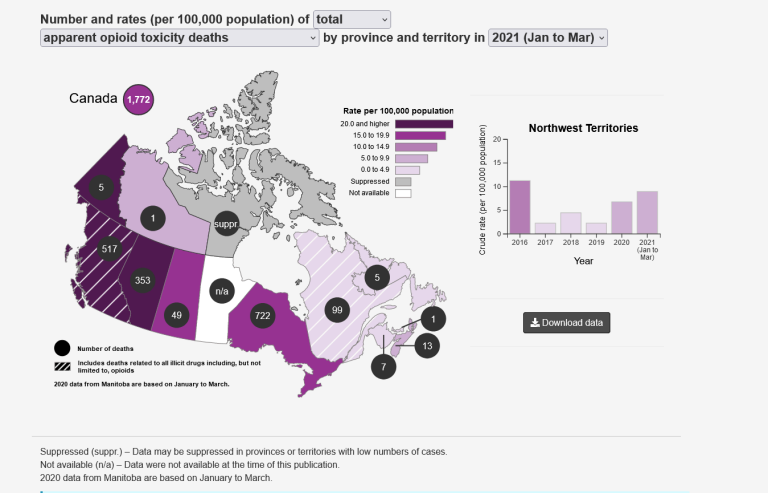
OVERDOSE

Overdoses are common and can be fatal with opiate use. Physical signs of opioid overdose include:

- constricted (pinpoint) pupils
- cold clammy skin, confusion
- convulsions
- extreme drowsiness
- slowed breathing

Opioid overdose is a crisis in Canada and tens of thousands of lives have been needlessly lost; between 2016 and September 2021 over 22,000 people died, that is twenty people per day who lost their lives to an opiate overdose.[1] Review the map below to see the impact of opiate overdose in each province and territory in Canada.

1. Government of Canada. (2021). *Opioid- and stimulant-related harms in Canada.* https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants



Opioid- and stimulant-related harms in Canada. Credit: Government of Canada. Long Description.

Overdose from opiates is not a phenomenon that impacts any group more than others, the deaths cut across social and economic lines. There are groups that are considered more vulnerable, for example people who are homeless are at higher risk of death from overdose.[2] Indigenous people are significantly over-represented in the loss of lives in Canada. Recent data from Alberta and British Columbia, the provinces most heavily impacted by the crisis, indicates that First Nations people are five times more likely to experience an overdose and three times more likely to die from overdose than non-First Nations people.[3] While men aged 30 to 39 make up the biggest group of deaths across the country, women are dying at a similar rate in the Prairies and eastern provinces.[4]

Food For Thought

- Why are marginalized groups, including Indigenous communities at higher risk for overdose?
- Where would you go for information about opioid overdose in Nova Scotia?

PREVENTING OVERDOSE

Naloxone kits have been available to the community since 2017 in Nova Scotia. Naloxone is used to treat an opioid overdose, it is a temporary opiate antagonist (a substance which blocks or reverses the effects of opioids, including extreme drowsiness, slowed breathing, or loss of consciousness). This temporarily reverses an overdose; however medical intervention is still required. Naloxone is **NOT** permanent. NS health recommends that if a person who has overdosed is not taken to a hospital, ***the***

2. Bauer, L. K., Brody, J. K., León, C., & Baggett, T. P. (2016). Characteristics of homeless adults who died of drug overdose: A retrospective record review. *Journal of health care for the poor and underserved*, *27*(2), 846–859. https://doi.org/10.1353/hpu.2016.0075
3. Jongbloed, K., Pearce, M., Pooyak, S., Zamar, D., Thomas, V., Demerais, L., Christian, W., Henderson, E., Sharma, R., Blair, A., Yoshida, E., Schechter, M.,& Spittal, P. (2017). The cedar project: mortality among young Indigenous people who use drugs in British Columbia. *Canadian Medical Association Journal, 189*(44), 1352-1359. https://doi.org/10.1503/cmaj.160778
4. CATIE. (2020). *The positive side magazine.* https://www.catie.ca/en/positiveside/spring-2020/lessons-not-learned

overdose victim can fall back into the overdose within 30 minutes; therefore Naloxone should not be considered as step 1, in a multi-step process for addressing an opiate overdose. Please review the 5 steps by the NS Take Home Naloxone Program.

Naloxone only works for opioids, if someone has overdosed on a stimulant or depressant, Naloxone will not work, but it will also not cause harm. If an overdose involves multiple substances, including opioids, Naloxone helps by temporarily blocking or removing the opioid.[5] Watch the following video from Nova Scotia Health promoting the importance of accessing naloxone kits.[6]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=73#oembed-1

In Nova Scotia, Naloxone kits are free and available to adults over the age of 18. Below you will find more information on the NS Take Home Naloxone Program.

As you are learning, opiates are having an impact on all communities in Canada. As Social Service workers, you may consider accessing a naloxone kit. You can save a life.

CHAPTER CREDIT

Adapted from the Unit 3.2 in Drugs, Health & Behavior by Jacqueline Schwab. CC BY-NC-SA. Updated with Canadian Content.

IMAGE CREDITS

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5. NS Take Home Naloxone Program. (2021b). *Learn more*. http://www.nsnaloxone.com/learn-more.html
6. Nova Scotia Health. (2018). *Naloxone: Who is your kit for?* [Video]. Vimeo. https://vimeo.com/300496867

3.3 EXAMPLES OF OPIOIDS

WHAT IS FENTANYL?

Fentanyl is a potent synthetic opioid drug approved by the CDSA for use as an analgesic (pain relief) and as an anesthetic. It is approximately 100 times more potent than morphine and 50 times more potent than heroin as an analgesic.

WHAT IS ITS ORIGIN?

Fentanyl was first developed in 1959 and introduced in the 1960s as an intravenous anesthetic. It is legally manufactured in the United States.

HOW IT IS ADMINISTERED?

Fentanyl products are prescribed and are currently available orally, transdermally and injectable formulations. Fentanyl can be injected, snorted/sniffed, smoked, taken orally by pill or tablet, and spiked onto blotter paper. Fentanyl patches can be used other than prescribed by removing its gel contents and then injecting or ingesting these contents. Patches have also been frozen, cut into pieces, and placed under the tongue or in the cheek cavity.

WHAT IS THE EFFECT ON THE BODY?

Fentanyl, similar to other commonly used opioid analgesics (e.g., morphine), produces effects such as relaxation, euphoria, pain relief, sedation, confusion, drowsiness, dizziness, nausea, vomiting, urinary retention, pupillary constriction, and respiratory depression.

IN THE NEWS: READ

Nova Scotia Health warns drugs laced with fentanyl sold in Cape Breton posted December 31, 2020 to CBC News Nova Scotia.

WHAT IS HEROIN?

Heroin is a highly addictive substance and it is a rapidly acting opioid.

WHAT IS ITS ORIGIN?

Heroin is processed from morphine, a naturally occurring substance extracted from the seed pod of certain varieties of poppy plants grown in Mexico, South America, Southwest Asia (Afghanistan and Pakistan), and Southeast Asia (Thailand, Laos, and Myanmar (Burma).

Heroin, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

WHAT DOES IT LOOK LIKE?

Heroin is typically sold as a white or brownish powder, or as the black sticky substance known as "black tar heroin." Although purer heroin is becoming more common, most "regular" heroin is "cut" with other psychoactive substances or substances like sugar, starch, powdered milk, or quinine.

HOW IS IT ADMINISTERED?

Heroin can be injected, smoked, or sniffed/snorted. High purity heroin is usually snorted or smoked.

WHAT IS ITS EFFECT ON THE BODY?

One of the most significant effects of heroin use is the frequency of the development of a substance use disorder. With regular heroin use, tolerance to the substance develops. Once this happens, the person must use more heroin to achieve the same intensity. As higher doses of the substance are used over time, physical dependence and psychological dependence deepens and a substance use disorder can develop. Effects of heroin use include drowsiness, respiratory depression, constricted pupils, nausea, a warm flushing of the skin, dry mouth, and heavy extremities.

IN THE NEWS: WATCH

Prescription heroin offered in Vancouver outside of clinical trial for first time.
Aired on *CBC News: The National* November 26, 2014. Available via YouTube.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=77

WHAT IS HYDROMORPHONE?

Hydromorphone has an analgesic potency of two to eight times greater than that of morphine and has a rapid onset of action.

WHAT IS ITS ORIGIN?

Hydromorphone is legally manufactured and distributed in the United States and shipped to Canada.

HOW IT IS ADMINISTERED?

Hydromorphone comes in tablets, capsules, oral solutions, and injectable formulations.

WHAT IS ITS EFFECT ON THE BODY?

Hydromorphone may cause constipation, pupillary constriction, urinary retention, nausea, vomiting, respiratory depression, dizziness, impaired coordination, loss of appetite, rash, slow or rapid heartbeat, and changes in blood pressure.

IN THE NEWS: WATCH

Vending machine dispenses heroin substitute for at-risk drug users by The Canadian Press, January 27, 2020. Available via YouTube.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=77

WHAT IS METHADONE?

Methadone is a synthetic (person-made) drug. It is considered an opioid agonist therapy (OAT); used to treat opioid addiction. It is also used to treat severe pain.

Methadone, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

WHAT IS ITS ORIGIN?

German scientists synthesized methadone during World War II because of a shortage of morphine. Methadone was introduced to Canada in 1964.[1]t

HOW IS IT ADMINISTERED?

Methadone is available as a tablet, oral solution, or injectable liquid.

WHAT IS ITS EFFECT ON THE BODY?

When an individual uses methadone, they may experience physical symptoms like sweating, itchy skin, or sleepiness. There is a risk for developing tolerance and subsequent dependence on the methadone. When use is stopped, individuals may experience withdrawal symptoms similar to other opioids including: Anxiety, muscle tremors, nausea, diarrhea, vomiting, and abdominal cramps. A person can overdose on methadone, in which case Naloxone may be used to treat the overdose. Learn more about methadone in this short clip below.[2]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=77#oembed-1

IN THE NEWS: READ

It's the end of the road for Halifax's methadone bus by Elizabeth Chiu, posted Aug 30, 2018 to CBC News Nova Scotia.

1. Eibl, J. K., Morin, K., Leinonen, E., & Marsh, D. C. (2017). The state of opioid agonist therapy in Canada 20 years after federal oversight. *Canadian Journal of Psychiatry,* 62(7), 444–450. https://doi.org/10.1177/0706743717711167
2. Neuroscientifically Challenged (2019). *Two minute neuroscience: Methadone.* [Video]. Youtube. https://www.youtube.com/watch?v=dw6laQ4-Zgs&feature =emb _imp_woyt

WHAT IS MORPHINE?

Morphine is a non-synthetic opioid, it is derived from opium and is considered an analgesic. It is used for the treatment of pain, and is the most widely used pain treatment medication in the world.[3]

WHAT IS ITS ORIGIN?

Morphine was isolated from opium by Friedrich Serturner in 1805. Morphine is made from opium, which has been known for millennia to relieve pain. The Sumerian clay tablet (about 2100 BC) is considered to be the world's oldest recorded list of medical prescriptions[4] and includes morphine. It was not until the development of the hypodermic needle and syringe nearly 50 years later that the use of morphine became widespread using morphine for postoperative pain relief.[5]

HOW IS IT ADMINISTERED?

Traditionally, morphine was almost exclusively used by injection, today it can be taken by all routes of administration. This includes oral solutions, immediate-and extended-release tablets and capsules, subcutaneous, transdermal and intramuscular.

WHAT IS ITS EFFECT ON THE BODY?

Morphine use results in relief from physical pain, a decrease in hunger, and inhibition of the cough reflex.

IN THE NEWS: READ & WATCH

(**WARNING, the article and attached video may cause activation**).

Investigations launched after Atikamekw woman records Quebec hospital staff uttering slurs before her death posted September 9, 2020 to CBC News Montreal.

WHAT IS OXYCODONE?

Oxycodone is a semi-synthetic opioid used to treat pain. Oxycodone was developed in 1995, beginning as OxyContin. It was created to provide long-lasting pain relief and was widely

3. Hamilton, G. R., & Baskett, T. F. (2000). In the arms of Morpheus; the development of morphine for postoperative pain relief. *Canadian Journal of Anaesthesia, 47*(4), 367-74. https://pubmed.ncbi.nlm.nih.gov/10764185
4. Norn, S., Kruse, P. R., Kruse, E. (2005). History of opium poppy and morphine. *Danish Medicinhist Arbog, 33,* 171-184. https://pubmed.ncbi.nlm.nih.gov/17152761/
5. Hamilton, G. R., & Baskett, T. F. (2000). In the arms of Morpheus; the development of morphine for postoperative pain relief. *Canadian Journal of Anaesthesia, 47*(4), 367-74. https://pubmed.ncbi.nlm.nih.gov/10764185

prescribed. It was hailed as a miralce drug for long lasting pain; however those who had been perscribed oxy found it had highly addictive qualities.[6]

WHAT IS ITS ORIGIN?

Oxycodone is synthesized from thebaine, a constituent of the poppy plant.

HOW IS IT ADMINISTERED?

Oxycodone is administered orally or intravenously. The tablets can be crushed and sniffed or dissolved in water and injected. It can also be inhaled.

WHAT IS ITS EFFECT ON THE BODY?

Physiological effects of oxycodone include pain relief, sedation, respiratory depression, constipation, papillary constriction, and cough suppression. Extended or chronic use of oxycodone containing acetaminophen may cause severe liver damage.

IN THE NEWS: READ

Abuse-resistant OxyContin under consideration by The Associated Press, posted September 22, 2009 to CBC News.

Chapter Credit

Adapted from Unit 3.3 Narcotics Continued in Drugs, Health & Behavior by Jacqueline Schwab. CC BY-NC-SA. Updated with Canadian Content.

Image Credits

- Heroin and Methadone, Drugs of Abuse from: U.S. Department of Justice Drug Enforcement Administration. (2017). *Drugs of abuse*, (pp. 42, 44). https://www.dea.gov/sites/default/files/2018-06/drug_of_abuse.pdf

6. Centre for Addiction and Mental Health. (2021). *Straight talk-Oxycodone.* https://www.camh.ca/en/health-info/guides-and-publications/straight-talk-oxycodone

3.4 STIMULANTS (AN OVERVIEW)

WHAT ARE STIMULANTS?

Stimulants speed up the body's systems. This class of drugs includes: methamphetamine and cocaine, prescription drugs such as amphetamines [Adderall and Dexedrine], and Methylphenidate [Concerta and Ritalin].

WHAT IS THEIR ORIGIN?

Stimulants have a long and varied use throughout the world. For example, the leaves of the coca plant were chewed and coca chewing has a long history of Indigenous use in South American countries.[1] When cocaine was isloated from coca in 1859, widespread use became the norm in Canada; a medical publication in 1884 was even created to promote its benefits.[2]

WHAT DO THEY LOOK LIKE?

Stimulants come in the form of pills, powder, rocks, and injectable liquids.

Crack Cocaine, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

HOW ARE THEY ADMINISTERED?

Stimulants can be pills or capsules that are swallowed. Smoking, snorting, or injecting stimulants produces a sudden sensation known as a "rush" or a "flash." Substance use disorders reflect a pattern of "binge" use (sporadically consuming large doses of stimulants over a short period of time). Heavy use may include injecting every few hours, continuing until the supply is gone or a point of delirium, psychosis, and physical exhaustion is reached. During heavy use, all other interests often become secondary to recreating the initial euphoric rush.

WHAT IS THEIR EFFECT ON THE MIND?

When used as part of a substance use disorder, stimulants are frequently taken to "get high" (produce a sense of exhilaration, enhance self-esteem, improve mental and physical performance, increase activity, reduce appetite, or extend wakefulness for a prolonged period). Chronic, high-dose use is frequently associated with agitation, hostility, panic, aggression, and suicidal or homicidal tendencies. Paranoia, sometimes accompanied by both auditory and visual hallucinations, may also occur.

1. Thoumi, F. E. (2003). *Illegal drugs, economy, and society in the Andes.* Woodrow Wilson Center Press with Johns Hopkins University Press.
2. Ciccarone, D. (2011). Stimulant abuse: pharmacology, cocaine, methamphetamine, treatment, attempts at pharmacotherapy. *Primary care, 38*(1), 41–58. https://doi.org/10.1016/j.pop.2010.11.004

Tolerance, in which more and more of the substance is needed to produce the usual effects, can develop rapidly, and psychological dependence occurs. The strongest psychological dependence observed occurs with the more potent stimulants, such as amphetamine, methylphenidate, methamphetamine, cocaine, and methcathinone. Abrupt cessation is commonly followed by a "crash" (depression, anxiety, craving, and extreme fatigue).

WHAT IS THEIR EFFECT ON THE BODY?

Stimulants are sometimes referred to as uppers and reverse the effects of fatigue on both mental and physical tasks. Therapeutic levels of stimulants can produce exhilaration, extended wakefulness, and loss of appetite. These effects are greatly intensified when large doses of stimulants are taken. Taking too large a dose at one time or taking large doses over an extended period of time may cause such physical side effects as dizziness, tremors, headache, flushed skin, chest pain with palpitations, excessive sweating, vomiting, and abdominal cramps.

WHAT IS THEIR LEGAL STATUS IN CANADA?

Stimulants are controlled under the CDSA as a Schedule I substance. Some prescription stimulants are not controlled (for example ephedrine can be found in some allergy and cold medicine) and some stimulants like tobacco and caffeine do not require a prescription.

Food For Thought

- Why do you believe tobacco and nicotine are not controlled under the CDSA?
- If Indigenous communities were using coca leaves for a millennia, why are stimulants now considered unsafe?

CHAPTER CREDIT

Adapted from Unit 3.4 Stimulants in Drugs, Health & Behavior by Jacqueline Schwab. CC BY-NC-SA. Updated with Canadian Content.

IMAGE CREDITS

- Crack Cocaine, Drugs of Abuse from: U.S. Department of Justice Drug Enforcement Administration. (2017). *Drugs of abuse*, (p. 48). https://www.dea.gov/sites/default/files/2018-06/drug_of_abuse.pdf

3.5 EXAMPLES OF STIMULANTS

WHAT ARE AMPHETAMINES?

Amphetamines are stimulants that speed up the body's system. Many are legally prescribed and used to treat attention-deficit hyperactivity disorder (ADHD).

WHAT IS THEIR ORIGIN?

Stimulants like amphetamine were developed as pharmaceutical drugs in the late 1920s, treating ashtma and other bronchial ailments. Amphetamine was first marketed in the 1930s as Benzedrine in an over-the-counter inhaler to treat nasal congestion. By 1937 amphetamine was available by prescription in tablet form and was used in the treatment of the sleeping disorder narcolepsy and ADHD. As for amphetamine, its pharmacological effects on attention and cognition, emotions, and appetite were explored thoroughly in the 1930s and 1940s.[1] Amphetamines began to be controlled by the Narcotic Control Act in 1961 which is now Canada's Controlled Drug and Substances Act.

WHAT DO THEY LOOK LIKE?

Amphetamines can look like pills or powder.

HOW ARE THEY ADMINISTERED?

Amphetamines are generally taken orally or injected. However, the addition of "ice," (the slang name of crystallized methamphetamine hydrochloride) has promoted smoking as another mode of administration. Just as "crack" is smokable cocaine, "ice" is smokable methamphetamine.

WHAT IS THEIR EFFECT ON THE MIND?

The effects of amphetamines and methamphetamine are similar to cocaine, but their onset is slower and their duration is longer. In contrast to cocaine, which is quickly removed from the brain and is almost completely metabolized, methamphetamine remains in the central nervous system longer, and a larger percentage of the drug remains unchanged in the body, producing prolonged stimulant effects. Chronic use produces a psychosis that resembles schizophrenia and is characterized by paranoia, picking at the skin, preoccupation with one's own thoughts, and auditory and visual hallucinations. Violent and erratic behavior is frequently seen among people use have an amphetamine or methamphetamine use disorder.

1. Rasmussen N. (2015). Amphetamine-type stimulants: The early history of their medical and non-medical uses. *International Review of Neurobiology, 120,* 9-25. https://pubmed.ncbi.nlm.nih.gov/26070751/

WHAT IS THEIR EFFECT ON THE BODY?

Physical effects of amphetamine use include increased blood pressure and pulse rates, insomnia, loss of appetite, and physical exhaustion.

WHAT IS THEIR LEGAL STATUS IN CANADA?

Amphetamines are Schedule I stimulants, and are available only through a prescription.

WHAT IS METHAMPHETAMINE?

Methamphetamine (meth) is a stimulant.

WHAT IS ITS ORIGIN?

Methamphetamine (meth) is a derivative of amphetamine and was synthesized in Japan in 1919. According to Parsons,[2] methamphetamine was used to treat a number of chronic illnesses, including asthma, schizophrenia, depression, Parkinson's disease, and narcolepsy.

WHAT DOES IT LOOK LIKE?

Regular meth is a pill or powder. Methamphetamine also comes in crystal forms (crystal meth), which resembles glass fragments or shiny blue-white "rocks" of various sizes.

HOW IS IT ADMINISTERED?

Meth is swallowed, snorted, injected, or smoked.

WHAT IS ITS EFFECT ON THE MIND?

Meth is a potent substance with central nervous system (CNS) stimulant properties. People who smoke or inject it report a brief, intense sensation, or rush. Oral ingestion or snorting produces a long-lasting high instead of a rush, which reportedly can continue for as long as half a day. Both the rush and the high are believed to result from the release of very high levels of the neurotransmitter dopamine into areas of the brain that regulate feelings of pleasure. Long-term meth use results in many damaging effects, including the development of a substance use disorder.

Researchers have reported that as much as 50 percent of the dopamine-producing cells in the brain can be damaged after prolonged exposure to relatively low levels of meth. Researchers also have found that serotonin-containing nerve cells may be damaged even more extensively.

Methamphetamine, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

2. Parsons, N. (2013) *Meth mania; A History of methamphetamine.* Lynne Rienner Publishers.

WHAT IS ITS EFFECT ON THE BODY?

Methamphetamine use can result in increased wakefulness, increased physical activity, decreased appetite, rapid breathing and heart rate, irregular heartbeat, increased blood pressure, and "hyperthermia" (overheating). High doses can elevate body temperature to dangerous, sometimes lethal, levels, and cause convulsions and even cardiovascular collapse and death. Meth use may also cause extreme anorexia, memory loss, and severe dental problems. High usage may result in death from stroke, heart attack, or multiple organ problems caused by overheating. Please review this overview of methamphetamine use in Canada.

WHAT IS ITS LEGAL STATUS IN CANADA?

Methamphetamine is a Schedule I stimulant under the CDSA.

IN THE NEWS: READ

Caught in a crisis: While Canada is preoccupied with opioid addiction, crystal meth is on the rise — and threatens to deepen the country's drug emergency by Nicole Ireland posted January 14, 2020 to CBC News Interactive.

WHAT IS COCAINE?

Cocaine is an intense, euphoria-producing stimulant.

WHAT IS ITS ORIGIN?

Cocaine is derived from coca leaves grown in some countries in South America. Acording to the UNODC[3] from the end of World War II until the late 1990s, almost all the world's coca bush was grown in Peru and the Plurinational State of Bolivia, and since the 1970s, most of this output was refined into cocaine in Colombia. The cocaine manufacturing process takes place in remote labs where the raw product undergoes a series of chemical transformations. Colombia now produces about 50% of the cocaine powder reaching North America.

WHAT DOES IT LOOK LIKE?

Cocaine is usually distributed as a white, crystalline powder, it is often diluted ("cut") with a variety of substances. In contrast, cocaine base (crack) looks like small, irregularly shaped chunks (or "rocks") of a whitish solid.

HOW IS IT ADMINISTERED?

Powdered cocaine can be snorted or injected into the veins after dissolving in water. Cocaine base

3. UNODC. (2010). *The global cocaine market.* https://www.unodc.org/documents/wdr/WDR_2010/1.3_The_globa_cocaine_market.pdf

(crack) is smoked. Cocaine is also used in "speedballing" (a practice where the cocaine is combined with opioids, like heroin). Although injecting, snorting, and smoking are the common ways of using cocaine, all mucous membranes readily absorb cocaine.

WHAT IS ITS EFFECT ON THE MIND?

Cocaine, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

The intensity of cocaine's euphoric effects depends on how quickly the drug reaches the brain, which depends on the amount and method of use. Following smoking or intravenous injection, cocaine reaches the brain in seconds, with a rapid buildup in levels (check section 3.1 for routes of administration). This results in a "rush" (a rapid-onset, intense euphoric effect).

By contrast, the euphoria caused by snorting cocaine is less intense and does not happen as quickly due to the slower build-up of the substance in the brain. Other effects include increased alertness and excitation, as well as restlessness, irritability, and anxiety.

Tolerance to cocaine's effects develops rapidly, causing people to take higher and higher doses. Taking high doses of cocaine or prolonged use can cause paranoia. The crash that follows euphoria is characterized by mental and physical exhaustion, sleep, and depression lasting several days. Following the crash, people often experience a craving to use cocaine again.

WHAT IS ITS EFFECT ON THE BODY?

Physiological effects of cocaine use include increased blood pressure and heart rate, dilated pupils, insomnia, and loss of appetite. The use of highly pure cocaine has led to many severe adverse health consequences such as cardiac arrhythmias, ischemic heart conditions, sudden cardiac arrest, convulsions, strokes, and death. In some people, the long-term use of inhaled cocaine has led to a unique respiratory syndrome, and chronic snorting of cocaine has led to the erosion of the upper nasal cavity.

WHAT IS ITS LEGAL STATUS IN CANADA?

Cocaine is a Schedule I drug under the CDSA.

IN THE NEWS: READ

On Canada's East Coast, an Unexplained Influx of Pure Cocaine by Matthew Bonn posted March 25, 2021 in Filter Magazine.

WHAT IS KHAT?

Khat is a flowering evergreen shrub that is used for its stimulant-like effect. Khat has two active ingredients, cathine, and cathinone.

WHAT IS ITS ORIGIN?

Khat is native to countries in Eastern Africa including Ethiopia and the Arabian Peninsula, where the use of it is an established cultural tradition for many social situations. "Cultures in East Africa and the Arabian Peninsular have used khat as a stimulant since the seventh century and the practice of coming together to chew the leaves of the khat plant has acquired unique cultural importance".[4] Khat use is prevalent in Ethiopia in particular amongst the Oromo people; it is used not only at weddings, births, funerals and other celebratory events, but can be used daily as part of "barcha" or the afternoon chew.[5]

WHAT DOES IT LOOK LIKE?

Khat is a flowering evergreen shrub, the leaves of the shrub are used.

Khat, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

HOW IS IT ADMINISTERED?

Khat is typically chewed like tobacco, then retained in the cheek and chewed intermittently to release the active drug, which produces a stimulant-like effect. Dried Khat leaves can be made into a tea or a chewable paste, and Khat can also be smoked and even sprinkled on food.

WHAT IS ITS EFFECT ON THE MIND?

Khat can induce a stimulant-like alertness, but has a very low potency. According to Mitchell[6] the ephedrine-like effects in khat are closer to cigarettes than a cup of coffee. It's more like a nicotine patch.

WHAT IS ITS EFFECT ON THE BODY?

Khat causes an increase in blood pressure and heart rate. Khat can also cause a brown staining of the teeth, insomnia, and gastric disorders. The amount needed to constitute an overdose is not known. Symptoms of toxicity include delusions, loss of appetite, difficulty with breathing, and increases in both blood pressure and heart rate.

4. Stevenson M., Fitzgerald, J., & Banwell, C. (1996). Chewing as a social act: cultural displacement and khat consumption in the East African communities of Melbourne. *Drug Alcohol Review, 15*(1), 73-82. https://pubmed.ncbi.nlm.nih.gov/16203354/
5. Gebissa, E. (2012). Khat: Is it more like coffee or cocaine? Criminalizing a commodity, targeting a community. *Sociology Mind, 2,* 204-212. https://www.researchgate.net/publication/267381622_Khat_Is_It_More_Like_Coffee_or_Cocaine_Criminalizing_a_Commodity_Targeting_a_Community
6. Mitchell, C. (2001). *Brooklyn Yemenis indignant over police raids to seize leaves of the stimulant khat*. The Journalism School, Columbia University. http://web.jr n.columbia.ed u/studentwork/h umanrig hts/khat- mit

WHAT IS ITS LEGAL STATUS IN CANADA?

Khat is a Schedule IV substance under the CDSA.

IN THE NEWS: READ

Woman who brought khat to Canada wins appeal: A court panel upholds the woman's absolute discharge, saying the Crown failed to show that the mild, leafy drug was harmful. by Betsy Powell posted April 20, 2012 in the *The Toronto Star*.

WHAT IS TOBACCO?

Tobacco is a plant grown for its leaves, which are dried and fermented before being put in tobacco products. Tobacco contains nicotine.

Air curing of tobacco leaves in Cuba. Credit: Alexander Klink, CC BY 4.0.

WHAT IS ITS ORIGIN?

Tobacco was grown in countries in South America and North America and has been used by Indigenous communities as a cultural and traditional herb. Tobacco "used in ritual, ceremony, and prayer, tobacco was considered a sacred plant with immense healing and spiritual benefits and was used by Indigenous cultures across Canada".[7]

Watch the video Traditional Tobacco Use by Alberta Health Services[8]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=87#oembed-1

7. First Nations Health Authority. (2021). *Respecting Tobacco,* (para. 1). https://www.fnha.ca/Documents/FNHA-Respecting-Tobacco-Brochure.pdf
8. Alberta Health Services. (2016, January 29). Traditional tobacco use. [Video]. Youtube. https://www.youtube.com/watch?v=PXFPBD6k73I

HOW IS IT ADMINISTERED?

People can smoke, chew, or sniff tobacco. Smoked tobacco products include cigarettes, cigars, bidis, and kreteks. Some people also smoke loose tobacco in a pipe or hookah (water pipe). Chewed tobacco products include "chew" (chewing tobacco), snuff, dip, and snus; snuff can also be sniffed.

WHAT IS IT'S EFFECT ON THE MIND?

The nicotine in any tobacco product readily absorbs into the blood when a person uses it. Upon entering the blood, nicotine immediately stimulates the adrenal glands to release the hormone epinephrine (adrenaline). Epinephrine stimulates the central nervous system and increases blood pressure, breathing, and heart rate. As with other stimulants, nicotine activates the brain's reward circuits and also increases levels of the chemical messenger dopamine, which reinforces rewarding behaviors. Studies suggest that other chemicals in tobacco smoke, such as acetaldehyde, may enhance nicotine's effects on the brain.

WHAT IS ITS EFFECT ON THE BODY?

Prolonged use can lead to lung cancer, chronic bronchitis, and emphysema. It increases the risk of heart disease, which can lead to stroke or heart attack. Non traditional use of tobacco has also been linked to other cancers, leukemia, cataracts, and pneumonia. Chew increases the risk of cancer, especially mouth cancers. Non traditional tobacco smoking can impact women who are pregnant and the fetus. People who are exposed to secondhand smoke are at a higher risk of lung cancer and heart disease. It can cause health problems in both adults and children, such as coughing, phlegm, reduced lung function, pneumonia, and bronchitis. Children exposed to secondhand smoke are at an increased risk of ear infections, severe asthma, lung infections, and death from sudden infant death syndrome.

What is its legal status in Canada?

The 2018 Tobacco and Vaping Products Act regulates the manufacture; sale; packaging and labeling; and advertising, promotion and sponsorship of tobacco and vaping products.[9]

3.5A Activities

1. There are many ways to use tobacco as a tradition. Listen to the following podcast to see how Indigenous communities in Canada are using tobacco as a way to heal from abuse and trauma. Tobacco Nation Episode 3 – Tradition by the First Nations Health Authority
   (Please note this podcast discusses sexual abuse and trauma and may activate listeners)
2. List other ways tobacco can be used in traditions.

9. Government of Canada. (2018). Tobacco and vaping products act. https://www.canada.ca/en/health-canada/services/health-concerns/tobacco/legislation/federal-laws/tobacco-act.html

Food For Thought

- Do you think e-cigarettes or vapes are a healthier alternative to smoking?
- Is it possible to overdose on nicotine?

IN THE NEWS: WATCH

E-cigarettes: Welcome back big tobacco, aired October 21, 2016 on CBC's current affair program *The Fifth Estate.* Available via YouTube.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=87#oembed-2

CHAPTER CREDIT

Adapted from Unit 3.4 in Drugs, Health & Behavior by Jacqueline Schwab. CC BY-NC-SA. Updated with Canadian Content.

IMAGE CREDITS

- Methamphetamine, Cocaine, and Khat, Drugs of Abuse from: U.S. Department of Justice Drug Enforcement Administration. (2017). *Drugs of abuse*, (pp. 51, 53, 54). https://www.dea.gov/sites/default/files/2018-06/drug_of_abuse.pdf
- Air curing of tobacco leaves in Cuba by Alexander Klink via Wikimedia Commons is licensed under CC BY 4.0

3.6 DEPRESSANTS (AN OVERVIEW)

WHAT ARE DEPRESSANTS?

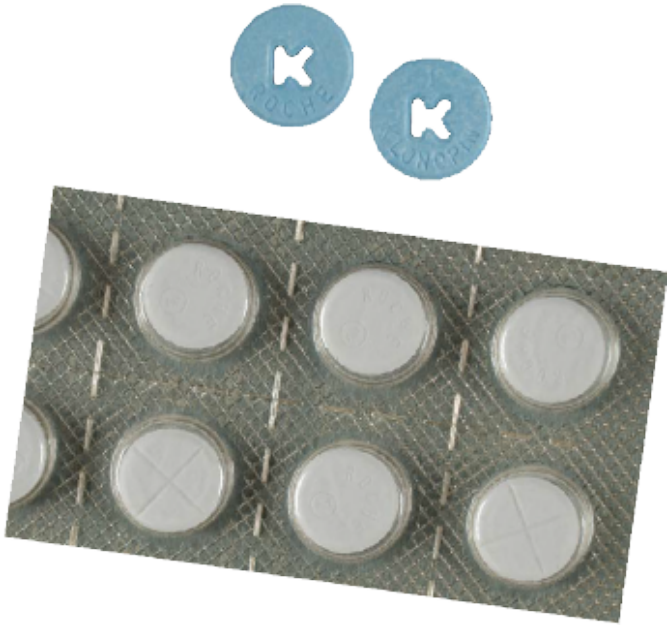
Depressants will put you to sleep, relieve anxiety and muscle spasms, and prevent seizures. Barbiturates, an older type of depressant, include Phenobarbital, Pentothal, Seconal, and Nembutal. Benzodiazepines, a newer type of depressant, were developed to replace barbiturates. Some examples are Valium, Xanax, Halcion, and Ativan. Other depressants inlcude Lunesta, Ambien, and Sonata, sedative medications approved for the short-term treatment of insomnia that share many of the properties of benzodiazepines. Other depressants include Quaalude, GHB and Rohypnol, and alcohol.

WHAT IS THEIR ORIGIN?

Various depressants have different origins. Alcohol has a long history, back many thousands of years, some pharmaceutical depressants were identified in the 1950's.

WHAT DO THEY LOOK LIKE?

Depressants come in the form of pills, syrups, and injectable liquids.



Klonopin, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

HOW ARE THEY ADMINISTERED?

Individuals may use oral administration, injection, or snorting to take depressants.

WHAT IS THEIR EFFECT ON THE MIND?

Depressants induce sleep, relieve anxiety and muscle spasms, and prevent seizures. They can also cause amnesia, leaving no memory of events that occur while under the influence of the substance, reduce reaction time, impair mental functioning and judgment, and cause confusion. Long-term use of depressants produces psychological dependence and tolerance.

WHAT IS THEIR EFFECT ON THE BODY?

Some depressants can relax the muscles. Other physical effects include slurred speech, loss of motor coordination, weakness, headache, light-headedness, blurred vision, dizziness, nausea, vomiting, low blood pressure, and slowed breathing.

Prolonged use of depressants can lead to physical dependence even at doses recommended for medical treatment. Unlike barbiturates, large doses of benzodiazepines are rarely fatal unless combined with other drugs or alcohol. But unlike the withdrawal symptoms seen with most other substances, withdrawal from depressants can be life-threatening.

GHB, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

WHAT IS THEIR LEGAL STATUS IN CANADA?

Most depressants are controlled substances that range from Schedule I to Schedule IV under the CDSA.

READ

Canadian Drug Summary: Sedatives by Canadian Centre on Substance Use and Addiction[1]

CHAPTER CREDIT

Adapted from Unit 3.6 in Drugs, Health & Behavior by Jacqueline Schwab. CC BY-NC-SA. Updated with Canadian Content.

IMAGE CREDITS

- Klonopin and GHB, Drugs of Abuse from: U.S. Department of Justice Drug Enforcement Administration. (2017). *Drugs of abuse*, (pp. 56, 57). https://www.dea.gov/sites/default/files/2018-06/drug_of_abuse.pdf

1. Canadian Centre on Substance Use and Addiction. (2019). *Sedatives (Canadian Drug Summary)*. https://ccsa.ca/sites/default/files/2019-06/CCSA-Canadian-Drug-Summary-Sedatives-2019-en.pdf

3.7 EXAMPLES OF DEPRESSANTS

WHAT IS ALCOHOL?

Alcohol is a widely available depressant in Canada and alcohol use in Canada is significant. According to the Canadian Centre on Substance Use and Addiction[1] alcohol is the most commonly used substance by Canadians.

A table of drinks and empty alcohol bottles. Credit: palette by ebrkut CC BY-ND 2.0.

WHAT IS ITS ORIGIN?

Alcohol use is not new, in fact, historians have found evidence of use of alcohol for many centuries; "for most of the past 10,000 years, alcoholic beverages were the most popular and common daily drink among people in Western civilization".[2] Alcohol is produced by fermenting or distilling various fruits, vegetables or grains. Fermented beverages include beer and wine, and have a maximum alcohol content of about 15%. Liquor (distilled beverages such as rum, whisky and vodka) have a higher alcohol content (Centre for Addiction and Mental Health, 2021a).

WHAT DOES IT LOOK LIKE?

Alcohol is a liquid substance; ethyl (pure) alcohol is a clear, colourless liquid.[3] You will find alcohol in beer, wine, spirits, rubbing alcohol, hand sanitizer, cough syrup, perfume, various extracts (like vanilla for baking), aftershave, mouthwash and some body washes.

HOW IS IT ADMINISTERED?

Alcohol is consumed orally.

WHAT ARE THE EFFECTS ON THE MIND?

Alcohol is a depressant that suppresses central nervous system activity (CNS). At rather low doses,

1. Canadian Centre on Substance Use and Addiction. (2017). *Canadian drug summary-alcohol.* https://www.ccsa.ca/sites/default/files/2019-04/CCSA-Canadian-Drug-Summary-Alcohol-2017-en.pdf
2. Stewart, S. (2004). *The history, current prevalence, and consequences of drinking problems in Canada,* (para. 1) https://www.researchgate.net/publication/228688984_The_History_Current_Prevalence_and_Consequences_of_Drinking_Problems_in_Canada
3. Centre for Addiction and Mental Health. (2021a). *Alcohol.* https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/alcohol

alcohol use is associated with feelings of euphoria. As the dose increases, people report feeling sedated. With excessive alcohol use, a person might experience a complete loss of consciousness and/or difficulty remembering events that occurred during a period of intoxication.[4] Psychological dependence is high with alcohol, due to the impact on the CNS.

WHAT ARE THE EFFECTS ON THE BODY?

Generally, alcohol is associated with decreases in reaction time and visual acuity, lowered levels of alertness, and reduction in behavioral control. Alcohol can cause birth defects such as Fetal Alcohol Spectrum Disorder (FASD) for women who are pregnant. Physical dependence of alcohol is high, as tolerance increases with the amount and frequency the alcohol is consumed. For people who have an alcohol use disorder, withdrawal can be life-threatening and should only be done under medical supervision.

WHAT IS THE LEGAL STATUS IN CANADA?

Alcohol is legal in Canada and can be consumed by individuals ages 18 and over, depending on province. Provinces set their age limit for consumption as well as licensing for sale of alcohol.

3.7A Activities

1. Brainstorm the ways that alcohol might impact an individual, a family, a community, a province, a country
2. Create your own marketing campaign for safe consumption of alcohol.
3. Review current alcohol marketing. How does marketing impact alcohol use in Canada?
4. Develop a social media post that addresses alcohol use among youth, adults or seniors.

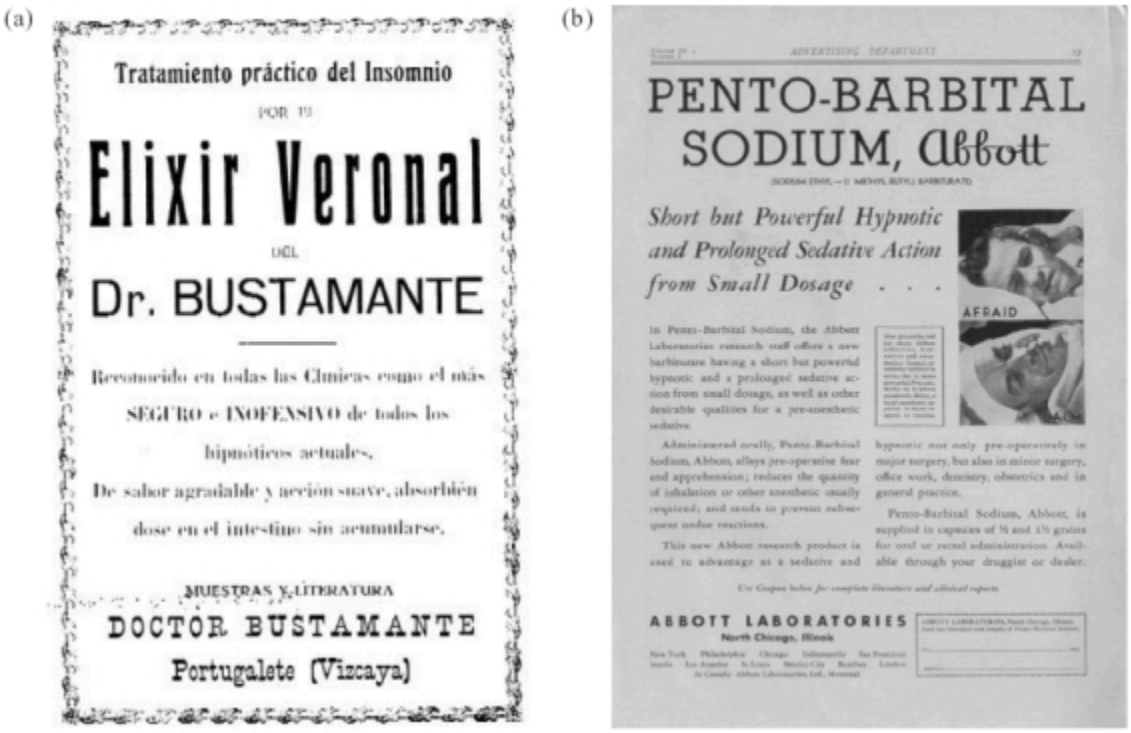
IN THE NEWS: READ

Alcohol and cannabis sales across Canada rose by over $2.6B during the pandemic, study suggests by Samantha Craggs posted November 4, 2021 to CBC News Hamilton.

WHAT ARE BARBITURATES?

Barbiturates are depressants that produce a wide spectrum of central nervous system depression from mild sedation to coma. They have been used as sedatives, hypnotics, anesthetics, and anticonvulsants.

4. McKim W. A. & Hancock S. (2013). Drugs & behavior : introduction to behaviorial pharmacology plus mysearchlab with etext -- access card package (Seventh). Pearson Education.



(a) Advertisment for Elixir Veronal (barbituate), a practical treatment of insomnia. Marketed as secure and harmless. (b) Advertisement for Abbott sodium pentobarbital (barbituate) in an American medical journal of 1933, highlighting its "short but powerful hypnotic effect and prolonged sedative action from small dosage". Source: The history of barbiturates a century after their clinical introduction.

WHAT IS THEIR ORIGIN?

Barbiturates were first introduced for medical use in the 1900s. "The clinical introduction of barbiturates begun a century ago (1904) when the Farbwerke Fr. Bayer and Co. brought onto the market the first agent of this type, diethyl-barbituric acid, giving rise to profound changes in the pharmacological approach to the psychiatric and neurological disorders of the time".[5]

WHAT DO THEY LOOK LIKE?

Barbiturates come in a variety of multi-colored pills and tablets as well as in liquid form.

HOW ARE THEY ADMINISTERED?

Barbiturates are most often consumed orally or by injecting a liquid. Barbiturates are generally administered to reduce anxiety and decrease inhibitions. Barbiturates can be extremely dangerous because overdoses can occur easily and lead to death.

WHAT IS THEIR EFFECT ON THE MIND?

Barbiturates cause mild euphoria, lack of inhibition, relief of anxiety, and sleepiness. Higher doses

5. López-Muñoz, F., Ucha-Udabe, R., & Alamo, C. (2005). The history of barbiturates a century after their clinical introduction. *Neuropsychiatric disease and treatment, 1*(4), 329–343. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2424120/

cause impairment of memory, judgment, and coordination; irritability; and paranoid and suicidal ideation. Tolerance develops quickly and larger doses are then needed to produce the same effect, increasing the danger of an overdose.

WHAT IS THEIR EFFECT ON THE BODY?

Barbiturates slow down the central nervous system and cause sleepiness. Overdose can occur easily.

WHAT IS THEIR LEGAL STATUS IN CANADA?

Barbiturates are Schedule IV depressants under the CDSA.

IN THE NEWS: READ

Newly available drug secobarbital could boost number of self-administered assisted deaths by Joan Bryden, *The Canadian Press* posted November 17 2017 to *CBC News Politics*.

WHAT ARE BENZODIAZEPINES?

Benzodiazepines are depressants that produce sedation and hypnosis, relieve anxiety and muscle spasms, and reduce seizures. They are used to induce sedation for surgery and other medical procedures, and in the treatment of seizures and alcohol withdrawal. Benzodiazepines are also called minor tranquillizers, sedatives or hypnotics. The most common benzodiazepines are the prescription drugs Valium, Xanax, Halcion, Ativan, and Klonopin. Tolerance can develop, although at variable rates and to different degrees. Shorter-acting benzodiazepines used to manage insomnia include Halcion and Versed, used for sedation, anxiety, and amnesia in critical care settings and prior to anesthesia. Benzodiazepines with a longer duration of action are utilized to treat insomnia in patients with daytime anxiety. These benzodiazepines include Xanax, Librium, Valium, Ativan and. Clonazepam. Clonazepam is also used as an anticonvulsant. They are the most widely prescribed psychoactive drugs in the world.[6]

WHAT IS THEIR ORIGIN?

In 1955, Hoffmann-La Roche chemist Leo Sternbach identified the first benzodiazepine, chlordiazepoxide (Librium).[7] Benzodiazepines are only available through prescription.

WHAT DO THEY LOOK LIKE?

Benzodiazepines come in both pill and liquid form.

6. Centre for Addiction and Mental Health. (2021b). *Anti-anxiety medications (benzodiazepines)*. https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/anti-anxiety-medications-benzodiazepines
7. Wick J. Y. (2013). The history of benzodiazepines. *The Journal of the American Society of Consultant Pharmacists, 28*(9), 538-548. https://pubmed.ncbi.nlm.nih.gov/24007886/

HOW ARE THEY ADMINISTERED?

Benzodiazepines are taken orally, or crushed to snort. They can also be injected.

WHAT IS THEIR EFFECT ON THE MIND?

Benzodiazepines are associated with amnesia, hostility, irritability, and vivid or disturbing dreams.

WHAT IS THEIR EFFECT ON THE BODY?

Benzodiazepines slow down the central nervous system and may cause sleepiness. Death by overdose is possible.

WHAT IS THEIR LEGAL STATUS IN CANADA?

Benzodiazepines are controlled in Schedule IV of the CDSA.

IN THE NEWS: WATCH

Benzodiazepines on the rise in street opioids, drug checking services say by CBC News posted December 27, 2021 to *CBC News: Health*.

WHAT IS GHB?

Gamma-Hydroxybutyric acid (GHB) is another name for the generic drug sodium oxybate. It is a substance naturally present in your body. GHB is often called a date-rape drug, because its sedative effects prevent victims from resisting sexual assault.

WHAT DOES IT LOOK LIKE?

GHB comes in liquid and powder form.

GHB, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

WHAT IS ITS ORIGIN?

GHB was first synthesized in 1960 as an alternative anesthetic to aid in surgery because of its ability to induce sleep and reversible coma.[8]

HOW IS IT ADMINISTERED?

In Canada, doctors can prescribe GHB for narcolepsy (a serious sleep disorder) and it is taken orally.

WHAT IS ITS EFFECT ON THE MIND?

GHB occurs naturally in the central nervous system in very small amounts. It acts as a depressant, slowing and calming the activity of the Central Nervous System (CNS). Effects including euphoria, drowsiness, decreased anxiety, confusion, and memory impairment. GHB can also produce both visual hallucinations and — paradoxically — excited and aggressive behavior. GHB greatly **increases** the CNS depressant effects of alcohol and other depressants, which increases the risk of overdose.

WHAT IS ITS EFFECT ON THE BODY?

GHB takes effect in 15 to 30 minutes, and the effects last 3 to 6 hours. Low doses of GHB produce nausea. At high doses, GHB overdose can result in unconsciousness, seizures, slowed heart rate, greatly slowed breathing, lower body temperature, vomiting, nausea, coma, and death. Regular use of GHB can lead to tolerance and withdrawal that includes insomnia, anxiety, tremors, increased heart rate and blood pressure, and occasional psychotic thoughts. "Effective antidotes to reverse the sedative and intoxicating effects of GHB do not exist".[9] GHB can cause nausea, vomiting,

8. O'Connell T., Kaye L., & Plosay J.J. 3rd. (2000, Dec. 1). Gamma-hydroxybutyrate (GHB): A newer drug of abuse. *American Family Physician, 62*(11), 2478-2483. https://pubmed.ncbi.nlm.nih.gov/11130233/
9. Busardò, F. P., & Jones, A. W. (2015). GHB pharmacology and toxicology: acute intoxication, concentrations in blood and urine in forensic cases and treatment of the withdrawal syndrome. *Current neuropharmacology*, *13*(1), 47–70. https://doi.org/10.2174/1570159X13666141210215423

incontinence, loss of consciousness, seizures, liver damage, kidney failure, respiratory depression, and death. GHB overdose can cause death.

WHAT IS ITS LEGAL STATUS IN CANADA?

GHB is a Schedule IV controlled substance by the CDSA.

IN THE NEWS: READ

(warning, this story may cause activation).

Toronto man jailed for drugging friend with date rape drug by Alyshah Hasham posted February 7, 2017 to the Toronto Star.

Food for Thought

- Which depressant did you know the most about? The least?

CHAPTER CREDIT

Adapted from Unit 3.7 in Drugs, Health & Behavior by Jacqueline Schwab. CC BY-NC-SA. Updated with Canadian Content.

IMAGE CREDITS

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- Images of historical advertisements for barbiturates from: López-Muñoz, F., Ucha-Udabe, R., & Alamo, C. (2005). The history of barbiturates a century after their clinical introduction. *Neuropsychiatric disease and treatment, 1*(4), 329–343. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2424120/
- GHB, Drugs of Abuse from: U.S. Department of Justice Drug Enforcement Administration. (2017). *Drugs of abuse* (p 57). https://www.dea.gov/sites/default/files/2018-06/drug_of_abuse.pdf

3.8 HALLUCINOGENS (AN OVERVIEW)

WHAT ARE HALLUCINOGENS

Hallucinogens are found in plants and fungi or are synthetically produced and are among the oldest known group of drugs used for their ability to alter human perception and mood.

WHAT IS THEIR ORIGIN?

Hallucinogens can found in plants and their origin predates history. They are said to have been inhaled, ingested, worshipped, and reviled, used by early cultures in both sociocultural and ritual contexts.[12] They can also be made in laboratories.

WHAT DO THEY LOOK LIKE?

Hallucinogens come in a variety of forms. MDMA or ecstasy tablets are sold in many colors with a variety of logos. LSD is sold in the form of impregnated paper (blotter acid), typically imprinted with colorful graphic designs. Cannabis is sold as a dried plant or oil and psyilobiclin is a dried mushroom. PCP and ketamine come in powder or pill form.

LSD Blotter Sheet, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

MDMA/Ecstasy pills, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

HOW ARE THEY ADMININSTERED?

The most commonly used hallucinogens are taken orally or smoked.

WHAT IS THEIR EFFECT ON THE MIND?

Sensory effects include perceptual distortions that vary with dose, setting, and mood. Psychic effects include distortions of thought associated with time and space. Time may appear to stand still, and forms and colors seem to change and take on new significance. Some individuals may experience flashbacks (fragmentary recurrences of certain aspects of the experience) without having used the substance in weeks or even months.

1. Abraham, H., Aldridge, A. & Gogia, P. (1996). The psychopharmacology of hallucinogens. *Neuropsychopharmacology 14*, 285–298. https://doi.org/10.1016/0893-133X(95)00136-2

2. Nichols, D. E. (2004). Hallucinogens. *Pharmacology & Therapeutics*, *101*(2), 131-181. https://doi.org/10.1016/j.pharmthera.2003.11.002

LSD Powder and Capsules, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

WHAT IS THEIR EFFECT ON THE BODY?

Physiological effects include elevated heart rate, increased blood pressure, and dilated pupils. Deaths exclusively from an acute overdose of LSD, magic mushrooms, and mescaline are extremely rare. Deaths generally occur due to suicide, accidents, and dangerous behavior, or due to the person inadvertently eating poisonous plant material. A severe overdose of PCP and ketamine can result in respiratory depression, coma, convulsions, seizures, and death due to respiratory arrest.

WHAT IS THEIR LEGAL STATUS IN CANADA?

Many hallucinogens are Schedule III under the CDSA.

CHAPTER CREDIT

Adapted from Unit 3.8 in Drugs, Health & Behavior by Jacqueline Schwab. CC BY-NC-SA. Updated with Canadian Content.

IMAGE CREDITS

- MDMA/Ecstasy pills, LSD Blotter Sheet, and LSD Powder and Capsule, Drugs of Abuse from: U.S. Department of Justice Drug Enforcement Administration. (2017). *Drugs of abuse*, (pp. 64-65). https://www.dea.gov/sites/default/files/2018-06/drug_of_abuse.pdf

3.9 EXAMPLES OF HALLUCINOGENS

WHAT IS CANNABIS?

Cannabis is a hallucinogen, produced by the cannabis sativa plant. Cannabis contains hundreds of chemical substances. More than 100 chemicals, called cannabinoids, have been identified as specific to the cannabis plant. THC (delta-9-tetrahydrocannabinol) is the main psychoactive cannabinoid and is most responsible for the "high" associated with cannabis use. Another cannabinoid is cannabidiol (CBD). CBD has little or no psychoactive effects, so you do not feel high. CBD counteracts some of the negative effects of THC.[1]

WHAT IS HASHISH?

Hashish and hashish oil are substances made from the cannabis plant that is like marijuana, only stronger. Hashish consists of the THC-rich resinous material of the cannabis plant, which is collected, dried, and then compressed into a variety of forms, such as balls, cakes, or cookie-like sheets. Pieces are then broken off, placed in pipes or mixed with tobacco and placed in pipes or cigarettes, and smoked. Hashish oil is produced by extracting the cannabinoids from the plant material with a solvent. The color and odor of the extract will vary, depending on the solvent used.

WHAT IS ITS ORIGIN?

The history of cannabis is lengthy, suffice it to say "humans have utilized cannabis products in various forms throughout recorded history."[2] Cannabis is currently grown all over the world and it can be cultivated in both outdoor and indoor settings.

1. Centre for Addiction and Mental Health. (2021). *Cannabis*. https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/cannabis
2. Russo, E. B. (2017). History of cannabis and its preparations in saga, science, and sobriquet. *Chemistry and Biodiversity 4*(8), 1614-1648. https://www.scinapse.io/papers/2146134654

WHAT DOES IT LOOK LIKE?

Marijuana is a dry, shredded green/brown mix of flowers, stems, seeds, and leaves from the Cannabis sativa plant. The mixture typically is green, brown, or gray in color and may resemble tobacco. It has a strong smell.

Marijuana Plant, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

HOW IS IT ADMINISTERED?

Marijuana is usually smoked as a cigarette (a joint) or in a pipe or bong. It is also smoked in blunts, which are cigars that have been emptied of tobacco and refilled with marijuana, sometimes in combination with another drug. Marijuana is also mixed with foods or brewed as a tea (ganja tea, used in Jamaica).[3] It is also sold in edible form, in products from candy to salad oils to baked goods. According to the Canadian Tobacco, Alcohol and Drugs Survey in 2015, 3.6 million (or 12%) of Canadians used cannabis.[4] Since becoming legal in 2019, that number may be different due to confidence in self reporting.

WHAT IS ITS EFFECT ON THE MIND?

When marijuana is smoked, the THC passes from the lungs and into the bloodstream, which carries the chemical to the organs throughout the body, including the brain. In the brain, the THC connects to specific sites called cannabinoid receptors on nerve cells and influences the activity of those cells. Many of these receptors are found in the parts of the brain that influence pleasure, memory, thought, concentration, sensory and time perception, and coordinated movement. The short-term effects of marijuana include feelings of euphoria, anxiousness, even fear, depending on the person. Others have indicated feelings of distorted perception, difficulty in thinking and problem-solving, and loss of coordination.

The effect of marijuana on perception and coordination are responsible for serious impairments in learning, associative processes, and psychomotor behavior (for example driving abilities). Long-term, regular use can lead to physical dependence and withdrawal following discontinuation, as well as psychological dependence. Clinical studies show that the physiological, psychological, and behavioral effects of marijuana vary among individuals and present a list of common responses to cannabinoids, as described in the scientific literature:

- Dizziness, nausea, tachycardia, facial flushing, dry mouth, and tremor initially
- Merriment, happiness, and even exhilaration at high doses
- Disinhibition, relaxation, increased sociability, and talkativeness
- Enhanced sensory perception, giving rise to increased appreciation of music, art, and touch Heightened imagination leading to a subjective sense of increased creativity
- Time distortions
- Illusions, delusions, and hallucinations are rare except at high doses

3. Ibid

4. Government of Canada. (2015). *Canadian tobacco alcohol and drugs (CTADS): summary.* https://www.canada.ca/en/health-canada/services/canadian-tobacco-alcohol-drugs-survey/2015-summary.html

- Impaired judgment, reduced coordination, and ataxia, which can impede driving ability or lead to an increase in risk-taking behavior
- Emotional liability, the incongruity of affect, dysphoria, disorganized thinking, inability to converse logically, agitation, paranoia, confusion, restlessness, anxiety, drowsiness, and panic attacks may occur, especially in inexperienced users or in those who have taken a large dose
- Increased appetite and short-term memory impairment are common

WHAT IS ITS EFFECT ON THE BODY?

Short-term physical effects from marijuana use may include sedation, bloodshot eyes, increased heart rate, coughing from lung irritation, increased appetite, and decreased blood pressure. People who smoke marijuana may experience health problems such as bronchitis, emphysema, and bronchial asthma. Extended use may cause suppression of the immune system. Withdrawal from chronic use of high doses of marijuana causes physical signs including a headache, shakiness, sweating, and stomach pains and nausea. Withdrawal symptoms also include behavioral signs such as restlessness, irritability, sleep difficulties, and decreased appetite. No deaths from overdose of marijuana have been reported.

WHAT IS ITS LEGAL STATUS IN CANADA?[5]

On October 17, 2018, the *Cannabis Act* came into force. Adults who are 18 or 19 years or older (depending on province or territory) are able to:

- possess up to 30 grams of legal dried cannabis, or its equivalent in non-dried form, in public
- share up to 30 grams of dried cannabis or its equivalent with other adults
- buy cannabis products from a provincial or territorial retailer
- grow up to 4 plants per residence (not per person) for personal use:
    - from legally acquired seeds or seedlings
    - depending on the province or territory

IN THE NEWS: WATCH

New cannabis products: What Canadians need to know[6] by Health Canada and the Public Health Agency of Canada. Available via the Healthy Canadians YouTube channel.

5. Government of Canada. (2021). Cannabis Legalization and Regulation. Department of Justice. https://www.justice.gc.ca/eng/cj-jp/cannabis/
6. Healthy Canadians. (2019, November 18). New cannabis products: What Canadians need to know. [Video]. Youtube. https://www.youtube.com/watch?v=uz9UUj0O-lQ&feature=emb_imp_woyt

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=105

WHAT IS ECSTASY/MDMA?

MDMA acts as both a stimulant and psychedelic, producing an energizing effect, distortions in time and perception, and enhanced enjoyment of tactile experiences. People use it to reduce inhibitions and to promote euphoria, feelings of closeness, empathy, and sexuality. Although MDMA is known among users as ecstasy, researchers have determined that many ecstasy tablets contain not only MDMA but also a number of other drugs or drug combinations that can be harmful, including fentanyl.

WHAT IS ITS ORIGIN?

The origins of MDMA have been challenged; however recent studies have shown that the German company Merck mentioned MDMA for the first time in files from 1912.[7] MDMA was tested by Merck as a blood-clotting medicine in the 1960's; not as an appetite suppressant as has been debunked by both scholars and Merck. In 1960, the first official recipe for ecstasy appeared in a scientific journal and by 1970 MDMA was being used in North America.[8]

WHAT DOES IT LOOK LIKE?

MDMA is mainly distributed in tablet form; MDMA tablets are sold with logos, creating brand names for people to seek out. MDMA is also distributed in capsules, powder, and liquid forms.

7. Bernschneider-Reif S, Oxler F., & Freudenmann R.W. (2006). The origin of MDMA ("ecstasy")–separating the facts from the myth. *Pharmazie. 61*(11), 966-72. https://pubmed.ncbi.nlm.nih.gov/17152992/

8. Freudenmann, R. W., Oxler F., Bernschneider-Reif, S. (2006). The origin of MDMA (ecstasy) revisited: the true story reconstructed from the original documents. *Addiction, 101*(9), 1241-5. https://pubmed.ncbi.nlm.nih.gov/16911722/

HOW IS IT ADMINISTERED?

MDMA use mainly involves swallowing tablets, which are sometimes crushed and snorted, occasionally smoked but rarely injected. MDMA is also available as a powder.

MDMA/Ecstasy pills, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

WHAT IS ITS EFFECT ON THE MIND?

MDMA mainly affects brain cells that use the chemical serotonin to communicate with each other. Serotonin helps to regulate mood, aggression, sexual activity, sleep, and sensitivity to pain. Clinical studies suggest that MDMA may increase the risk of long-term problems with memory and learning. MDMA causes changes in perception, including euphoria and increased sensitivity to touch, energy, sensual and sexual arousal, need to be touched, and need for stimulation.

Some unwanted psychological effects include: Confusion, anxiety, depression, paranoia, sleep problems, and drug craving. All these effects usually occur within 30 to 45 minutes of swallowing the drug and usually last 4 to 6 hours, but they may occur or last weeks after ingestion.

WHAT IS ITS EFFECT ON THE BODY?

People who take MDMA may experience some of the same effects as those who use stimulants such as cocaine and amphetamines. These include increased motor activity, alertness, heart rate, and blood pressure. In high doses, MDMA can interfere with the body's ability to regulate temperature. On occasions, this can lead to a sharp increase in body temperature (hyperthermia), resulting in liver, kidney, and cardiovascular system failure, and death. Because MDMA can interfere with its own "metabolism" (its breakdown within the body), potentially harmful levels can be reached by repeated drug use within short intervals. Studies suggest the chronic use of MDMA can produce damage to the serotonin system.

WHAT IS ITS LEGAL STATUS IN CANADA?

MDMA is a Schedule III drug under the Controlled Substances Act.

IN THE NEWS: READ

Vancouver psychedelics company gets Health Canada greenlight for MDMA therapy study by Jon Hernandez, posted to CBC News British Columbia July 14, 2021[9]

WHAT IS LSD?

LSD is a hallucinogen that has no accepted medical use in treatment in Canada.

WHAT IS ITS ORIGIN?

LSD was synthesized in 1943 by Albert Hofmann at Sandoz Pharmaceutical Laboratories in Switzerland.[10] It was used over the next fifteen years in a variety of applications from treating other substance use disorders like alcohol as well as mental health disorders like schizophrenia.[11] The substance fell from favor as a method of treatment for any disorder and was added to the CDSA.

WHAT DOES IT LOOK LIKE?

LSD comes in tablets, capsules, and occasionally in liquid form. It is an odorless and colorless substance with a slightly bitter taste. LSD is often added to absorbent paper, such as blotter paper, and divided into small decorated squares, with each square representing one dose.

HOW IS IT ADMININISTERD?

LSD is generally taken orally.

WHAT IS ITS EFFECT ON THE MIND?

During the first hour after ingestion, users may experience visual changes with extreme changes in mood. While hallucinating, the user may suffer impaired depth and time perception accompanied by a distorted perception of the shape and size of objects, movements, colors, sound, touch, and the user's own body image. The ability to make sound judgments and see common dangers is impaired, making the user susceptible to personal injury. It is possible for users to suffer acute anxiety and depression after an LSD "trip" and flashbacks have been reported days, and even months, after taking the last dose.

9. CBC News. (2021a). *Vancouver psychedelics company gets Health Canada greenlight for MDMA therapy study.* https://www.cbc.ca/news/canada/british-columbia/mdma-therapy-for-ptsd-1.6101674
10. Dyck, E. (2015). LSD: a new treatment emerging from the past. *Canadian Medical Association Journal, 187*(14), 1079–1080. https://doi.org/10.1503/cmaj.141358
11. Ibid.

WHAT IS ITS EFFECT ON THE BODY?

The physical effects include dilated pupils, higher body temperature, increased heart rate and blood pressure, sweating, loss of appetite, sleeplessness, dry mouth, and tremors.

WHAT IS ITS LEGAL STATUS IN CANADA?

LSD is a Schedule III substance under the CDSA.

IN THE NEWS: READ

LSD. Good for your health? This Canadian researcher says it just might be — if you take enough by Omar Mosleh posted February 28, 2020 to the *Toronto Star.*[12]

WHAT ARE PEYOTE AND MESCALINE?

Peyote is a small, spineless cactus. The active ingredient in peyote is the hallucinogen mescaline.

WHAT IS ITS ORIGIN?

Peyote has been used by Indigenous peoples in North and South America as a part of their religious rites for thousands of years. A recent study has shown prehistoric use of peyote by native North Americans and a radiocarbon study dated the dried cacti to the time interval 3780–3660 BCE.[13] Mescaline can be extracted from peyote or produced synthetically.

12. The Toronto Star. (2020, February 28). *LSD. Good for your health? This Canadian researcher says it just might be — if you take enough.*https://www.thestar.com/edmonton/2020/02/28/this-canadian-researcher-says-overdosing-on-lsd-might-just-be-good-for-you.html
13. Beyer, J. (2013). *Herbal psychoactive substances in Encyclopedia of Forensic Sciences* (2nd Edition). Academic Press. https://doi.org/10.1016/B978-0-12- 382165-2.00317-2

WHAT DOES IT LOOK LIKE?

The top of the peyote cactus is referred to as the "crown" and consists of disc-shaped buttons that are cut off. These buttons are called mescal buttons.

Peyote Cactus, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

HOW IS IT ADMININSTERED?

The fresh or dried buttons are chewed or soaked in water to produce a liquid. Peyote buttons may also be ground into a powder that can be placed inside gelatin capsules to be swallowed, or smoked with a leafy material such as cannabis or tobacco.

WHAT IS ITS EFFECT ON THE MIND?

Peyote and mescaline will cause varying degrees of illusions, hallucinations, altered perception of space and time, and altered body image. People may also experience euphoria, which is sometimes followed by feelings of anxiety.

WHAT IS ITS EFFECT ON THE BODY?

Following the consumption of peyote and mescaline people may experience: Intense nausea, vomiting, dilation of the pupils, increased heart rate, increased blood pressure, a rise in body temperature that causes heavy perspiration, headaches, muscle weakness, and impaired motor coordination. It is said with the use of mescalin the hangover comes first, as it induces hours of nausea and often vomiting before the hallucinations begin.[14]

WHAT IS ITS LEGAL STATUS IN CANADA?

Peyote and mescaline are Schedule III substances under the CDSA. In the United States a specific exemption has been granted to the Native American Church for 'bona fide traditional ceremonial purposes".[15]

14. Jay, M. (2019). *Mescaline: A global history of the first psychedelic.* Yale University Press.

15. Stork, C. M. & Schreffler, S. M. (2014). *Peyote in Encyclopedia of Toxicology* (3rd ed.), Academic Press, 841-843. https://doi.org/10.1016/B978-0-12-386454-3.00765-X.

IN THE NEWS: READ

Psychedelic use spreads in B.C. native community posted August 2, 2011 to CBC News British Columbia.[16]

WHAT IS PSILOCYBIN?

Psilocybin is a chemical obtained from certain types of fresh or dried mushrooms.

WHAT IS ITS ORIGIN?

Psilocybin mushrooms are found in Southern and Northern American countries. Evidence from antiquity suggests psilocybin mushrooms were used by different, geographically separated ancient cultures,[17] with the most prominent evidence from ancient meso-American cultures, who described psilocybin mushrooms as "teonanacatl" ("flesh of god").[18]

WHAT DOES IT LOOK LIKE?

Mushrooms containing psilocybin are available fresh or dried and have long, slender stems topped by caps with dark gills on the underside. Fresh mushrooms have white or whitish-gray stems; the caps are dark brown around the edges and light brown or white in the center. Dried mushrooms are usually rusty brown with isolated areas of off-white.

Psilocybin Mushrooms, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

HOW IS IT ADMINISTERED?

Psilocybin mushrooms are ingested orally. They may also be brewed as a tea or added to other foods to mask their bitter flavor.

WHAT IS ITS EFFECT ON THE MIND?

The psychological consequences of psilocybin use include hallucinations and an inability to discern

16. CBC News. (2011). *Psychedelic use spreads in B.C. native community.* https://www.cbc.ca/news/canada/british-columbia/psychedelic-use-spreads-in-b-c-native-community-1.1111869
17. Akers B.P., Ruiz J.F., & Piper A. (1992). A prehistoric mural in Spain depicting neurotropic psilocybe mushrooms? *Economic Botany, 65,* 121–8. https://www.jstor.org/stable/41242925
18. Rucker, J. J. & Young, A. H. (2021). Psilocybin: From serendipity to credibility? *Frontiers in Psychiatry, 12,* 445. https://doi.org/10.3389/fpsyt.2021.659044

fantasy from reality. Panic reactions and psychosis also may occur, particularly if a person ingests a large dose.

WHAT IS ITS EFFECT ON THE BODY?

The physical effects include nausea, vomiting, muscle weakness, and lack of coordination.

WHAT IS ITS LEGAL STATUS IN CANADA?

Psilocybin is a Schedule III substance under the Controlled Substances Act.

IN THE NEWS: READ

New U of C research position 1st in Canada to focus on psychedelic drug therapy for mental health by The Canadian Press , posted: June 9, 2021 to CBC News Alberta.[19]

CHAPTER CREDIT

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IMAGE CREDIT

Marijuana Plant, MDMA/Ecstasy pills, Peyote Cactus, and Psilocybin Mushrooms, Drugs of Abuse from: U.S. Department of Justice Drug Enforcement Administration. (2017). *Drugs of abuse*, (pp. 67, 71-72, 75). https://www.dea.gov/sites/default/files/2018-06/drug_of_abuse.pdf

19. CBC News. (2021). *New U of C research position 1st in Canada to focus on psychedelic drug therapy for mental health.* https://www.cbc.ca/news/canada/calgary/u-of-c-psychedelic-drug-research-1.6059821

3.10 PSYCHOTHERAPEUTIC AGENTS (AN OVERVIEW)

WHAT IS THEIR ORIGIN?

Psychotherapeutic agents each have unique origin stories, for the purpose of this text, we will focus on some of the more well-known substances. When psychotherapeutic agents were being developed to treat a disease-specific illness, the focus on mental health was treatment from a biological perspective; "most commentators agree that, from the 1950s, there was an emphasis on biological theories and treatments".[1] Using substances to treat mental health disorders is a relatively new concept. "When "antipsychotic" drugs were introduced into psychiatry in the 1950s, they were thought to work by inducing a state of neurological suppression, which reduced behavioral disturbance as well as psychotic symptoms".[2] As knowledge grew, researchers began to use "disease-specific" medication to treat illness, and substances were able to modify the underlying pathology of the condition. Today, rather than the idea of a substance masking a symptom it is seen as treating the symptom itself.[3]

OVERVIEW

From antipsychotic medication to anti-depressants and anti-anxiety medication, substances like Risperidone, Haldol, Ativan and Valium can play a role in treating several mental health disorders and conditions and have been an important intervention in people's lives in Canada. Sussman[4] suggests "mental disorders are true medical conditions that can benefit from drug therapy in the same way that diabetes, asthma and hypothyroidism, and other chronic disorders are responsive to medication"[5] Medication is an individual choice, and should be based on evidence. There are interventions like counselling and cognitive behaviour therapy (CBT) which can also be effective interventions. Treating mental health disorders with medication in concert with therapy is common in Western treatment models. Treatment may also include therapy, nutrition, exercise and other activities. Choosing a treatment plan should be based on a person's individual needs and medical situation and under a mental health professional's care.

WHAT IS THEIR EFFECT ON THE BRAIN AND BODY

Depending on the type of medication and what it is prescribed for, the effects on the brain will vary. These resources from the Centre for Addiction and Mental Health, Canada's largest mental health teaching hospital, will provide you with more information on psychotherapeutic agents.

1. Moncrieff, J. (2013) Magic bullets for mental disorders: The emergence of the concept of an "antipsychotic" drug. *Journal of the History of the Neurosciences, 22*(1), 30-46. https://doi-org.libproxy.stfx.ca/10.1080/0964704X.2012.664847
2. Ibid.
3. Ibid.
4. Sadock B. J., Sadock V. A., & Ruiz, P. (2009). *Comprehensive textbook of psychiatry (9th ed.).* Wolters, Kluwer, Lippincott, Williams & Wilkins Publishing.
5. Ibid, p. 2985.

PSYCHOTHERAPEUTIC AGENTS RESOURCES

- Antipsychotic Medication[6]
- Anti-anxiety Medications[7]
- Mood stabilizing Medication[8]
- Anti-depressant Medication[9]

3.10A Activities

1. Brainstorm a list of agencies that can support your mental health in your community. Are they community, business or government?
2. Why is mental health support important?
3. How are mental health and substance use disorders related?
4. Find two evidence based articles about substance use and mental health. Compare and contrast.
5. Based on these two articles, create a poster that could be shared with youth ages 12-18

6. Centre for Addiction and Mental Health. (2021a). *Antipsychotic medication*. https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/antipsychotic-medication
7. Centre for Addiction and Mental Health. (2021b). *Anti-anxiety medications*. https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/anti-anxiety-medications-benzodiazepines
8. Centre for Addiction and Mental Health. (2021c). *Mood stabilizing medication*. https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/mood-stabilizing-medication
9. Centre for Addiction and Mental Health. (2021d). *Anti-depressant medication.* https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/antidepressant-medications

Food For Thought

- Does taking a medication for a mental illness have stigma? Why?
- What is something you have heard about medication?

CHAPTER CREDIT

3.11 EXAMPLES OF PSYCHOTHERAPEUTIC AGENTS

Psychotherapeutic substances are used to treat persons with specific mental health issues. Rather than increasing, decreasing, or disrupting central nervous system activity as other psychoactive substances do, the primary function of psychotherapeutic agents is to return a person to a level of homeostasis. Some people believe that medication can be a "cure" for a mental health disorder. The substances do not **cure** these disorders, they are one part of a treatment regime that is specific to each individual. Please watch the video[1] below to help you understand the importance of medication for some individuals who are living with a mental health disorder.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=109#oembed-1

WHAT ARE ANTIDEPRESSANTS?

Antidepressant medications are most commonly used to help relieve the distress of depression or anxiety. They are also used to help with other conditions such as chronic pain. Antidepressants help many people; they do not work for everyone. Even when they do work well, they can only do so much. They often work best when they are combined with therapy, support from family and friends and self-care (e.g., regular exercise, a nutritious diet and getting enough sleep). Antidepressants can take up to several weeks to be fully effective. Early signs that the medication is working include improved sleep, appetite and energy. Improvement in mood usually comes later.[2]

HOW DO ANTIDEPRESSANTS WORK?

Antidepressant medications increase the activity of chemicals called neurotransmitters in the brain. Increasing the activity of the neurotransmitters serotonin, norepinephrine and dopamine seems to help lessen the symptoms of depression and anxiety. These medications help to relieve symptoms of depression and anxiety in up to 70 per cent of people who try them. This rate is even higher when people who do not get relief with one type of antidepressant try a second type.[3]

1. As/Is. (2015, Dec 8). *What people who take mental health medication want you to know.* [Video]. Youtube. https://www.youtube.com/watch?v=weylkHJkQuY&t=23s
2. Centre for Addiction and Mental Health. (2021a) *Antidepressant medications.* https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/antidepressant-medications
3. Ibid.

WHAT ARE THE POSSIBLE SIDE EFFECTS OF ANTIDEPRESSANTS?

All medications can have side-effects. Some people experience no side-effects. Others may find the side-effects distressing. In most cases, side-effects lessen as treatment continues. Treatment is usually started at a low dose, to minimize side-effects, and then slowly increased until the ideal dose is found. The ideal dose is one that provides the greatest benefit with minimum side-effects.

WHAT ARE ANTI-ANXIETY MEDICATIONS?

Anti-anxiety medications help reduce the symptoms of anxiety, such as panic attacks, or extreme fear and worry. The most common anti-anxiety medications are called benzodiazepines. Benzodiazepines can treat generalized anxiety disorder. In the case of panic disorder or social phobia (social anxiety disorder), benzodiazepines are usually second-line treatments, behind other antidepressants.

HOW DO ANTI-ANXIETY MEDICATIONS WORK?

Anti-anxiety medications "enhance the activity of the neurotransmitter GABA—a chemical in the brain that helps you to feel calm. Their effect also produces drowsiness, making it easier to fall asleep and sleep through the night".[4]

WHAT ARE THE POSSIBLE SIDE EFFECTS OF ANTI-ANXIETY MEDICATIONS?

The common side effects of antipsychotic medication, depending on the medication include: drowsiness, sedation, dizziness and loss of balance.[5]

WHAT ARE ANTIPSYCHOTICS?

Antipsychotic medicines are primarily used to manage "psychosis" (conditions that affect the mind, and in which there has been some loss of contact with reality). Psychosis can include delusions (false, fixed beliefs) or hallucinations (hearing or seeing things that are not really there). Psychosis can be as symptom of a mental health disorder such as schizophrenia, bipolar disorder, or very severe depression (also known as "psychotic depression").[6] Psychosis can also be experienced through substance use.

HOW DO ANTIPSYCHOTICS WORK?

Antipsychotic medications are often used in combination with other medications to treat delirium, dementia, and mental health conditions, including: Attention Deficit Hyperactivity Disorder, Severe Depression, Eating Disorders, Post Traumatic Stress Disorder, Obsessive Complusive Disorder, and Generalized Anxiety Disorder. Antipsychotic medicines do not **cure** these conditions. They are used to help relieve symptoms and improve quality of life.

4. Centre for Addiction and Mental Health. (2021b). *Anti-anxiety medications, benzodiazepines.* https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/medication-therapies/anti-anxiety-medications-benzodiazepines
5. Ibid.
6. Centre for Addiction and Mental Health. (2021c). *Mood stabilizing medication.* https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/medication-therapies/mood-stabilizing-medication

WHAT ARE THE POSSIBLE SIDE EFFECTS OF ANTIPSYCHOTICS?

Certain symptoms, such as feeling agitated and having hallucinations, usually go away within days of starting an antipsychotic medication. Symptoms like delusions usually go away within a few weeks, but the full effects of the medication may not be seen for up to six weeks. Every patient responds differently, so it may take several trials of different antipsychotic medications to find the one that works best. Some people may choose to stop taking medication (relapse). Some people stop taking the medication because they feel better or they may feel that they do not need it anymore, but no one should stop taking an antipsychotic medication without talking to their health care provider.

WHAT ARE MOOD STABILIZERS?

Mood stabilizers are used primarily to treat bipolar disorder, mood swings associated with other mental disorders, and in some cases, to augment the effect of other medications used to treat depression. Lithium which is an effective mood stabilizer, is approved for the treatment of mania and the maintenance treatment of a bipolar disorder. A number of cohort studies describe anti-suicide benefits of lithium for individuals on long-term maintenance. Mood stabilizers work by decreasing abnormal activity in the brain and are also sometimes used to treat: Depression, Schizoaffective Disorder, disorders of impulse control, some mental health disorders in children. Anticonvulsant medications are also examples of mood stabilizers. They were originally developed to treat seizures, but they were found to help control unstable moods.

HOW DO MOOD STABILIZERS WORK?

Mood stabilizers are not yet "fully understood. It is thought that the drugs work in different ways to bring stability and calm to areas of the brain that have become overstimulated and overactive, or to prevent this state from developing".[7]

WHAT ARE THE POSSIBLE SIDE EFFECTS OF MOOD STABILIZERS?

The side-effects of mood stabilizers vary with each medication. For example, if a person is prescribed Lithium, side effects include "thirst and urination, nausea, weight gain and a fine trembling of the hands. Less common side-effects can include tiredness, vomiting and diarrhea, blurred vision, impaired memory, difficulty concentrating, skin changes (e.g., dry skin, acne) and slight muscle weakness"[8]. Some people experience no side-effects and others may experience some or all of the side effects. The good news is that side-effects usually lessen as treatment continues.[9]

CHAPTER CREDIT

Adapted from Unit 4.1 in Drugs, Health & Behavior by Jacqueline Schwab. CC BY-NC-SA. Updated with Canadian Content.

7. Ibid.
8. Ibid.
9. Ibid.

3.12 STEROIDS

WHAT ARE STEROIDS?

Substances known as anabolic steroids are synthetic versions of testosterone and created in laboratories. They are used for muscle growth and are used primarily in animal farming. Steroids are used in humans to address issues like delayed growth and can also be used to treat physical illness like wasting.[1] Using steroids by athletes has been shown to promote muscle growth, enhance athletic or other physical performance, and improve physical appearance, and has been banned in many professional and non-professional sports. Testosterone, nandrolone, stanozolol, methandienone, and boldenone are some of the most frequently abused anabolic steroids.

Watch the video Anabolic Steroids: Friend or Foe?[2]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=113#oembed-1

WHAT IS THEIR ORIGIN?

Testosterone was isolated by scientists in the 1930s. It was used to treat delayed puberty, particularly in males.[3] Anabolic steroids are currently manufactured by pharmaceutical companies and they are available legally only by prescription.

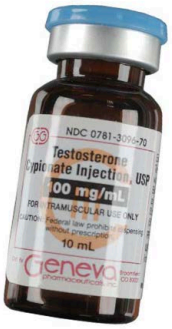
WHAT DO THEY LOOK LIKE?

Steroids are available in tablets and capsules, sublingual-tablets, liquid drops, gels, creams, transdermal patches, subdermal implant pellets, and water-based and oil-based injectable solutions. The appearance of these products varies depending on the type and manufacturer.

1. Centre for Addiction and Mental Health. (2021). *Steroids.* https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/steroids
2. Demystifying Medicine. (2018, April 2). *Anabolic steroids: Friend or foe?* [Video]. Youtube. https://www.youtube.com/watch?v=XBM6gj7KHPA
3. Honders, C., & Roleff, T. L. (2016). *Steroids and other performance-enhancing drugs.* Greenhaven Publishing LLC. http://ebookcentral.proquest.com/lib/stfx/detail.action?docID=5430771

HOW ARE THEY ADMINISTERED?

Anabolic steroids come in the form of tablets, capsules, a solution for injection and a cream or gel to rub into the skin. Weightlifters and bodybuilders who use steroids often take doses that are up to 100 times greater than those used to treat medical conditions.[4]



Testosternone Cypionate Injection, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

Depo-Testosterone, Drugs of Abuse. Credit: U.S. Department of Justice Drug Enforcement Administration

WHAT IS THEIR EFFECT ON THE MIND?

Case studies and scientific research indicate that high doses of anabolic steroids may cause mood and behavioral effects. In some individuals, steroid use can cause dramatic mood swings, increased feelings of hostility, impaired judgment, and increased levels of aggression (often referred to as roid rage). When people stop taking steroids, they may experience severe depression. Anabolic steroid use may develop into a psychological dependence.

WHAT IS THEIR EFFECT ON THE BODY?

A wide range of adverse effects is associated with the misuse of anabolic steroids. These effects depend on several factors including age, sex, the anabolic steroid used, amount used, and duration of use. In adolescents, anabolic steroid use can stunt the ultimate height that an individual achieves. In boys, steroid use can cause early sexual development, acne, and stunted growth. In adolescent girls and women, anabolic steroid use can induce permanent physical changes, such as deepening of the voice, increased facial and body hair growth, menstrual irregularities, male pattern baldness, and lengthening of the clitoris. In men, anabolic steroid use can cause shrinkage of the testicles, reduced sperm count, enlargement of the male breast tissue, sterility, and an increased risk of prostate cancer.

In both men and women, anabolic steroid use can cause high cholesterol levels, which may increase the risk of coronary artery disease, strokes, and heart attacks. Anabolic steroid use can also cause acne and fluid retention. Oral preparations of anabolic steroids, in particular, can damage the liver. People who inject steroids run the risk of contracting various infections due to non-sterile injection techniques, sharing of contaminated needles, and the use of steroid preparations manufactured in non-sterile environments. All these factors put users at risk for contracting viruses such as HIV or hepatitis B and C, and bacterial infections at the site of injection. People who inject steroids may also develop endocarditis, a bacterial infection that causes a potentially fatal inflammation of the heart lining.

WHAT IS THEIR LEGAL STATUS IN CANADA?

Anabolic steroids are Schedule III substances under the CDSA.

4. Centre for Addiction and Mental Health. (2021). *Steroids.* https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/steroids

STEROIDS AND TRANSGENDER COMMUNITIES

There are questions about steroid usage amongst people who identify as transgender. "Many transgender men and women seek hormone therapy as part of the transition process"[5]; however anabolic steroids are **NOT** used in hormone therapy in Canada. For more information on steroids in transgender communities please visit World Professional Organization for Transgender Health.[6]

Now that you have explored the many categories of substances and examples, check your learning with this quiz.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=113#h5p-9

CHAPTER CREDIT

Adapted from Unit 3.10 in Drugs, Health & Behavior by Jacqueline Schwab. CC BY-NC-SA. Updated with Canadian Content.

IMAGE CREDITS

- Depo-Testosterone and Testosternone Cypionate Injection, Drugs of Abuse from: U.S. Department of Justice Drug Enforcement Administration. (2017). *Drugs of abuse*, (p. 78). https://www.dea.gov/sites/default/files/2018-06/drug_of_abuse.pdf

5. Unger C. A. (2016). Hormone therapy for transgender patients. *Translational Andrology and Urology, 5*(6), 877–884. https://doi.org/10.21037/tau.2016.09.04
6. World Professional Organization For Transgender Health. (2021). *About.* https://www.wpath.org/

3.13 SELF CARE

The self care practice in this module focuses on journaling. Journaling can be a powerful way to capture how you are feeling at a moment in time. It allows you to write your feelings, thoughts and experiences. Once you begin journaling you may decide to review what you have written. This can be helpful for identifying situations that have been difficult and what you did to address them. It can also be helpful for identifying when you are not taking care of yourself, for example, personal hygiene or broken sleep patterns.

Journaling can be free-form, where you write what you like, or you can use journaling prompts.

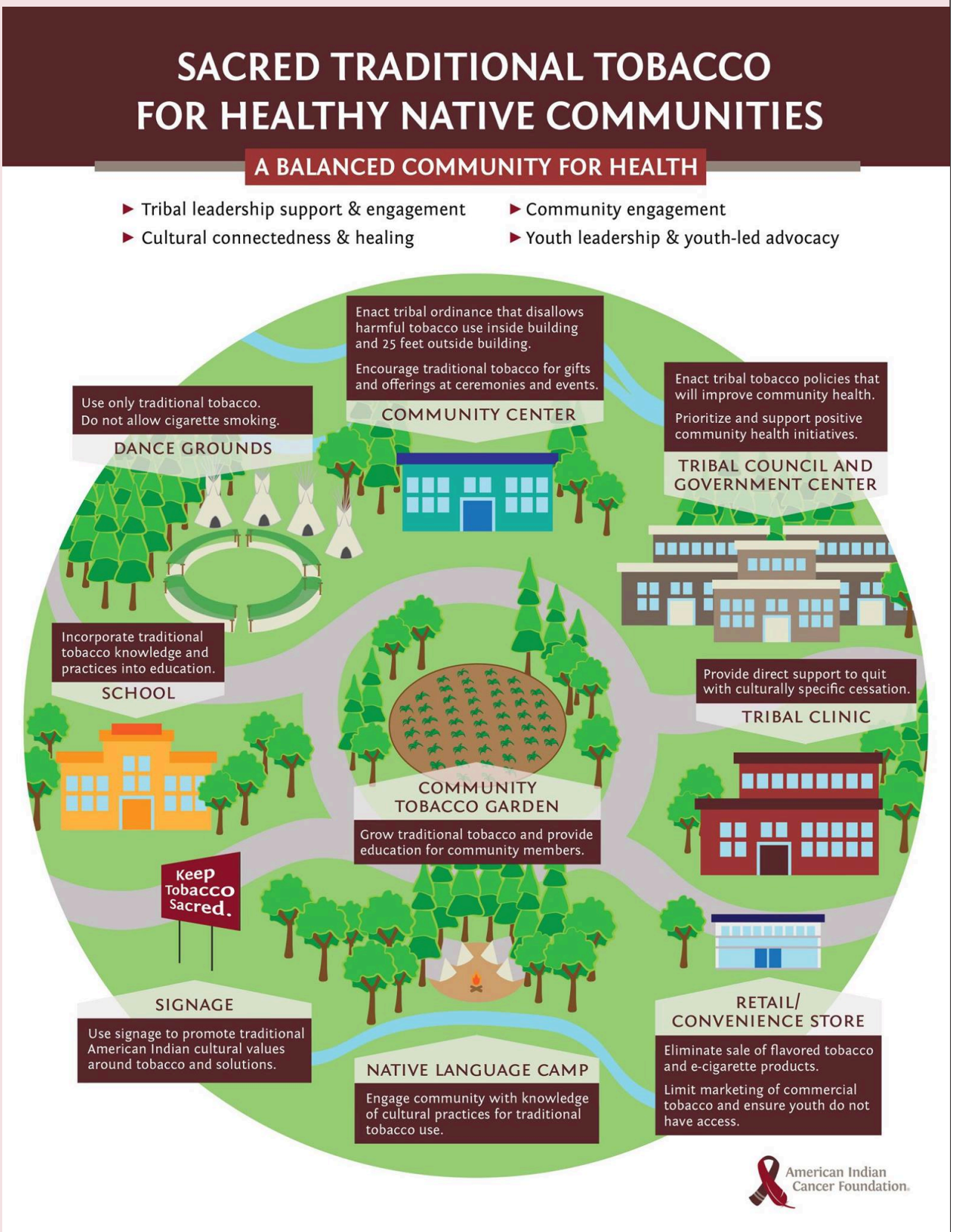
READ

Please review the Expressive Writing for Resilience: Writing to Heal handout by Duke University[1] to learn more about the power of journaling.

1. Jones, J., Chacon, D., Kozhumam, A., Santos, N., Eun, J., Xu, K., Savelyeva, A., Zheng, L., Evans, J., Glass, O., Barfield, R., Bechard, E.M., (2021). *Expressive writing for resilience: Wriitng to heal .Duke University and Bass Connections. https://bassconnections.duke.edu/sites/bassconnections.duke.edu/files/site-images/expressive-writing-resilience-2019.pdf*

Additional Resources

- Opioid Addiciton webpage on the Centre for Addiction and Mental Health website.
- Preganancy and Women's Mental Health in Canada Fact Sheet created by the Public Health Agency of Canada.
- Street Drugs 101. A short film from 2007 by Nettie Wild, hosted on the National Film Board of Canada website.
- The Sacred Traditional Tobacco for Healthy Native Communities infographic by the National Native Network.



Sacred Traditional Tobacco for Healthy Native Communities infographic. Credit: National. American Indian Cancer Foundation. Long Description.

IMAGE CREDIT

American Indian Cancer Foundation. (2014). *Sacred Traditional Tobacco for Healthy Native Communities [infographic]*. The National Native Network. https://keepitsacred.itcmi.org/tobacco-and-tradition/traditional-tobacco-use/

CHAPTER 4: SUBSTANCES AND THEIR IMPACTS ON THE BRAIN AND BODY

Learning Objectives

By the end of this chapter you should be able to:

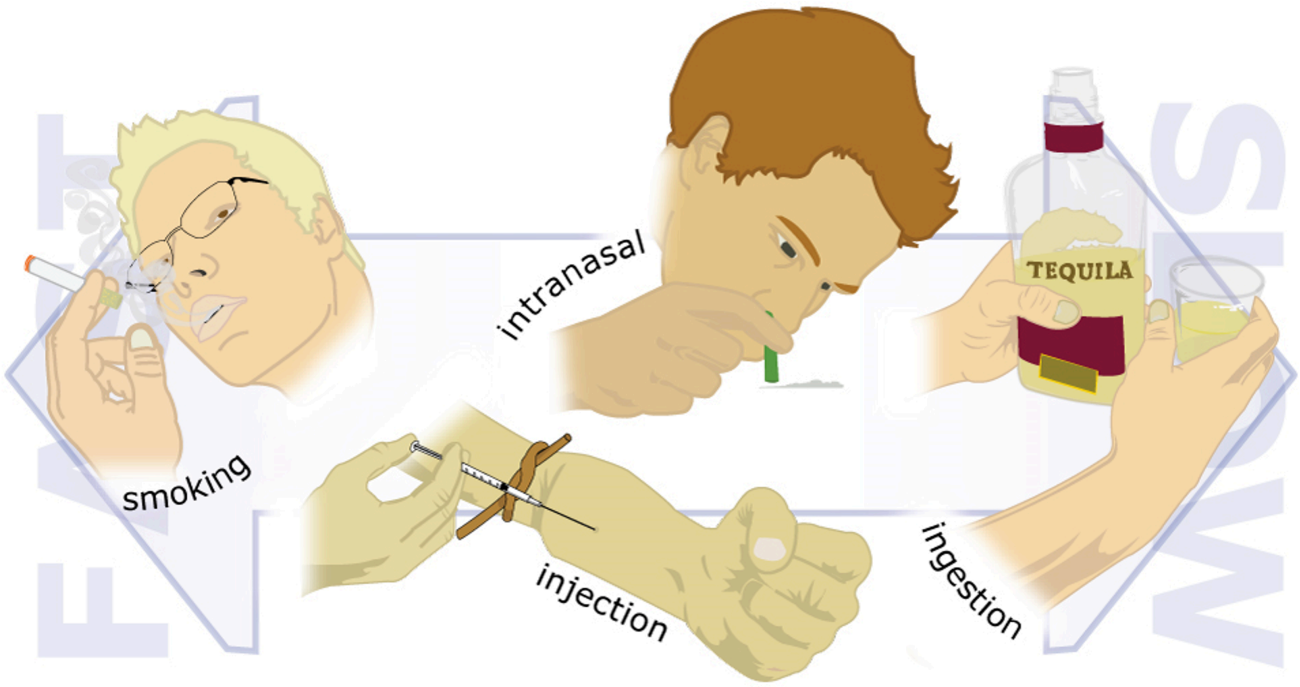
1. Describe the physiological effects of substance use
2. Describe the psychological effects of substance use
3. Describe the subjective effects of substance use
4. Discuss multi-substance use
5. Discuss adverse substance interactions

4.1 OVERVIEW

Have you ever wondered why Tylenol might fix a headache, or caffeine makes you feel more alert? This chapter will be a deeper exploration of the specific impacts that substances have on the brain and body. It will help you further your understanding of the brain, the areas that are targeted by certain substances and the chemical reactions when the substances are brought into the body. You are not expected to be experts in biology; however you should have a basic understanding of the biology and chemistry of substance use.

4.2 ROUTES OF ADMINISTRATION

Research has shown that the faster a substance reaches the brain, the more likely it may become misused. Different methods of delivery—smoking, injecting, or snorting—largely influence how quickly a substance reaches the brain. Delivery methods, genetics, and environment all influence the potential of a substance to develop into a substance use disorder.



Drug Delivery Methods. Credit: Genetic Science Learning Center.

4.2A Activities

1. Brainstorm a list of all the ways that a person can get a substance into their body?
2. Rate your list; which way do you think is fastest? Which way is slowest?

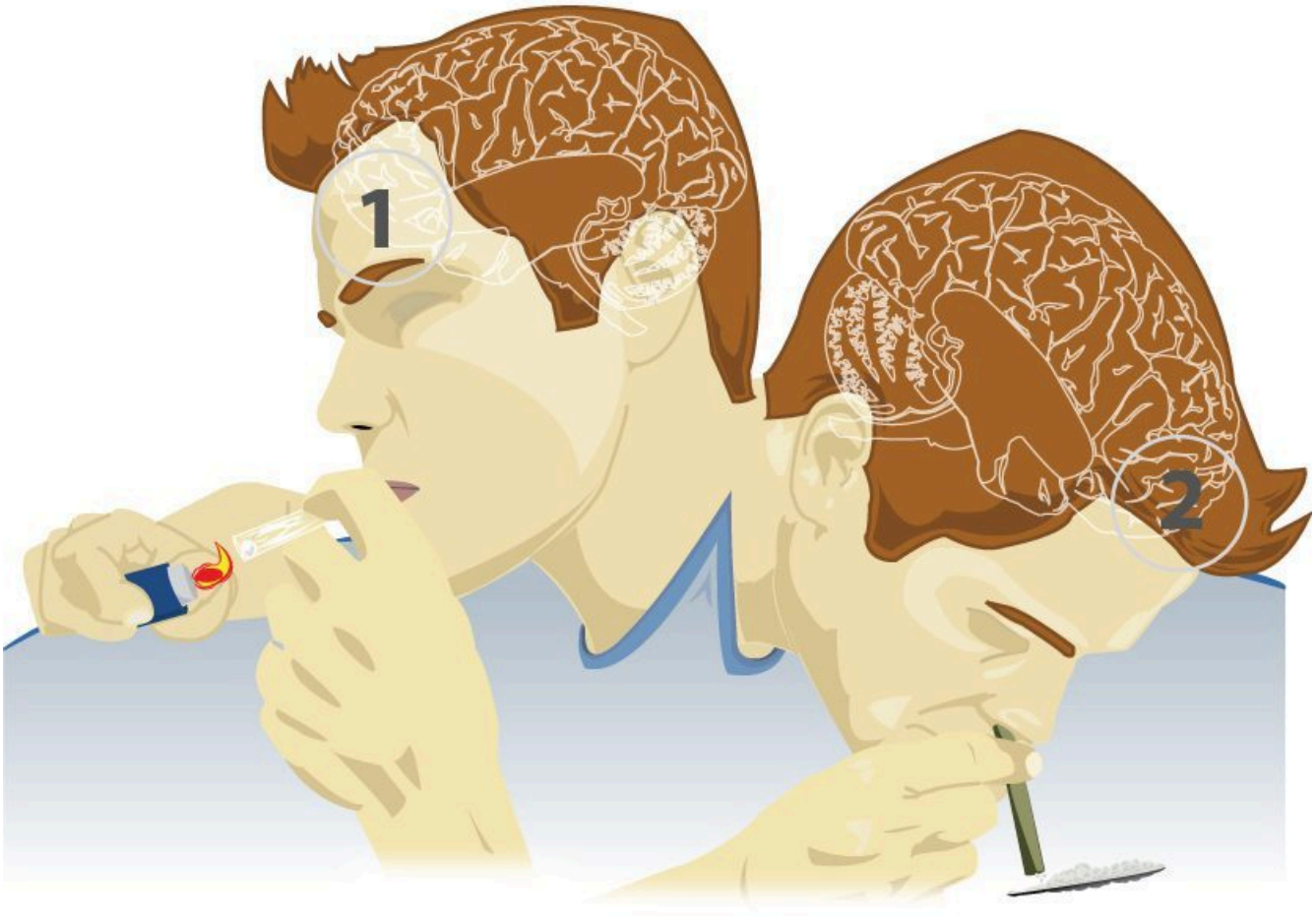
When a person injects a substance into their vein or smokes and inhales into their lungs, they feel the effects of the substance very quickly. Snorting a substance into a nasal cavity or swallowing a

substance means it takes longer for the body to absorb and feel the effects; the drugs uptake is slower.[1] People can take a substance in a number of ways. The routes of administration are described in the table below.[2]

Method	Example of Drug	Time Needed for Effect	Advantages of Route	Disadvantages of Route
Oral	Alcohol	30-60 minutes	Convenient	Slow, irregular
Inhalation	Nicotine	8 seconds	Fast	Lung damage
Intravenous Injection	Heroin	15 seconds	Fast	Overdose/ infections
Mucous membrane	Cocaine	1-2 minutes	Convenient	Local tissue damage
Subcutaneous injection	Heroin	5-10 minutes	Safer & easier than IV	Infection
Intramuscular Injection	Morphine	10-15 minutes	Controlled	Painful
Transdermal	Nicotine	15-20 minutes	Convenient	Limited application/ potential misuse

Fast Delivery

1. Samaha, A-N., & Robinson T. E. (2005). Why does the rapid delivery of drugs to the brain promote addiction? *Trends in Pharmacological Sciences, 26*(2), 82-87. https://pubmed.ncbi.nlm.nih.gov/15681025/
2. Case-Lo, C. (2019, March 28). *Medication administration: Why it's important to take drugs the right way.* https://www.healthline.com/health/administration-of-medication

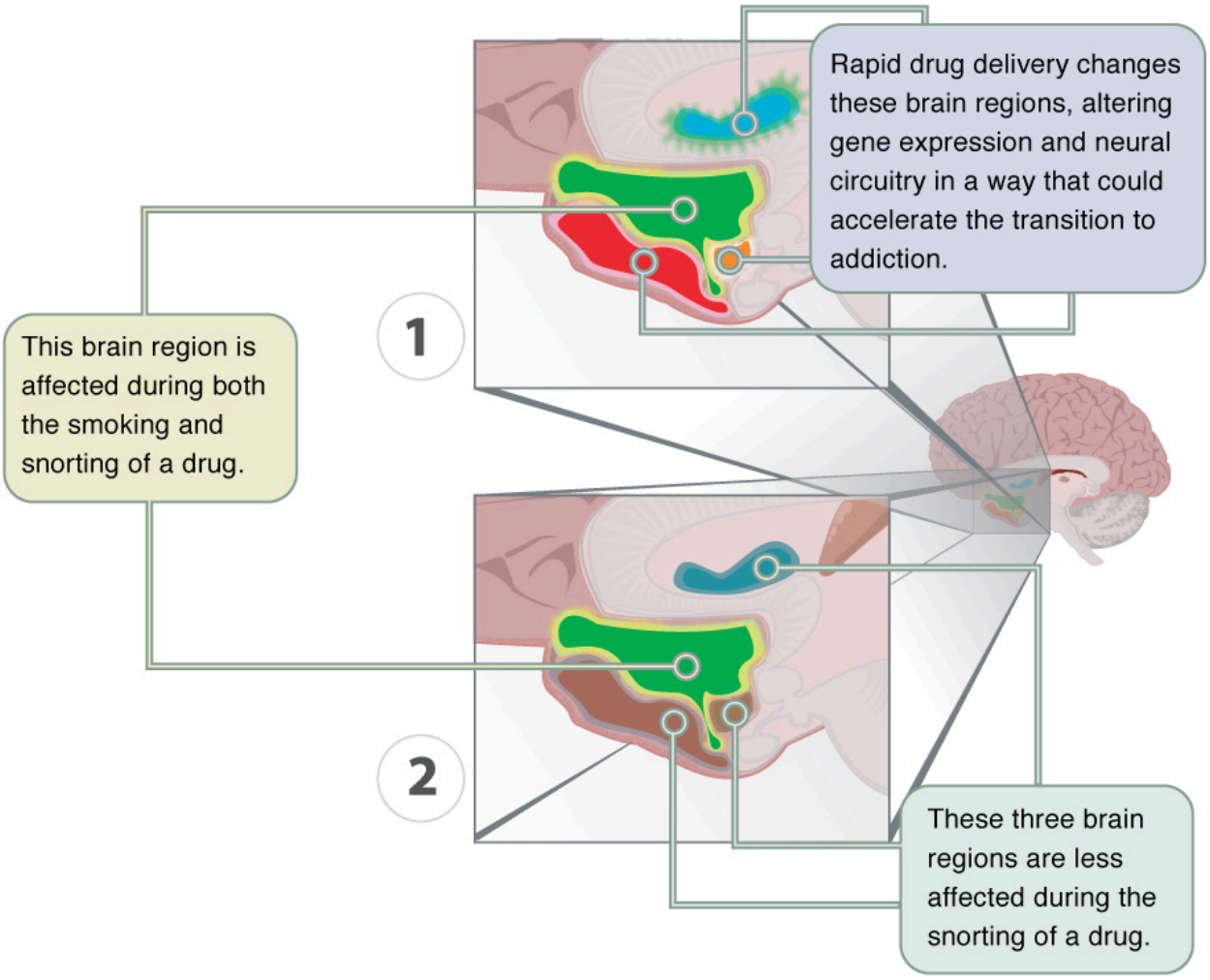


Fast Drug Delivery Methods. Credit: Genetic Science Learning Center.

The fastest way to get a substance to the brain is by smoking it. When a substance like tobacco smoke for instance is taken into the lungs, nicotine seeps into lung blood where it can quickly travel to the brain. This fast delivery is one reason smoking cigarettes is can turn into a disorder quickly.

Injecting directly into a blood vessel is the second fastest way to get a substance to the brain, followed by snorting or sniffing it through the nose. A slow mode of delivery is ingestion, such as drinking alcohol. The effects of alcohol take many minutes rather than a few seconds to cause behavioral and biological changes in the brain.

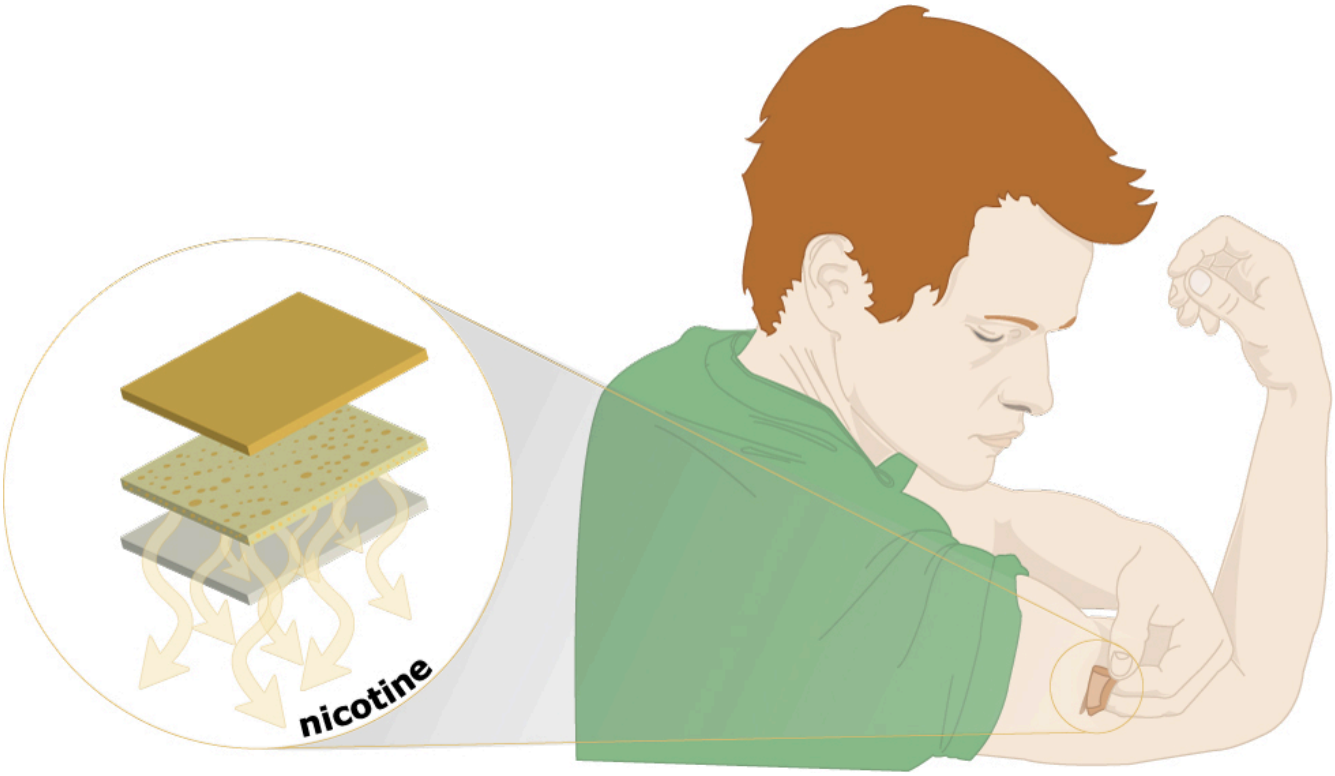
RAPID DELIVERY CHANGES YOUR BRAIN



Drug Delivery Methods. Credit: Genetic Science Learning Center. Long Description.

People who have a substance use disorder often choose a delivery method that gets them high quickly. As the SUD progresses, people will seek out the more immediate and more intense high. But speed does not seem to be the only reason that rapid delivery is an important factor. Recent evidence suggests that the mode of delivery can actually influence which part of the brain is most affected by a substance. Rapid delivery, such as smoking, affects brain regions that facilitate substance use disorders.

SLOW DELIVERY



Drug Delivery Methods. Credit: Genetic Science Learning Center.

Increased knowledge about substance delivery methods is leading to new therapies to support substance use disorders. For example, delivering a substance slowly, by ingestion or through the skin, produces a weaker, longer-lasting effect. You may have seen nicotine patches for people who have tobacco use disorder. Slow delivery allows the substance to temporarily stabilize the brain and help reduce withdrawal symptoms over a longer period of time. Research suggests a slower delivery method can reduce the risk of an addiction.[3]

DRUG ADMINISTRATION[4]

Drug administration is the giving of a drug by one of several means (routes).

3. Genetic Science Learning Center. (2013, August 30). Drug delivery methods. https://learn.genetics.utah.edu/content/addiction/delivery/
4. Le, J.(2012, October 12). *Introduction to administration and Kinetics of Drugs.* Merck Manual Consumer Version. https://www.merckmanuals.com/home/drugs/administration-and-kinetics-of-drugs/introduction-to-administration-and-kinetics-of-drugs

Route	Explanation
buccal	held inside the cheek
enteral	delivered directly into the stomach or intestine (with a G-tube or J-tube)
inhalable	breathed in through a tube or mask
infused	injected into a vein with an IV line and slowly dripped in over time
intramuscular	injected into muscle with a syringe
intrathecal	injected into your spine
intravenous	injected into a vein or into an IV line
nasal	given into the nose by spray or pump
ophthalmic	given into the eye by drops, gel, or ointment
oral	swallowed by mouth as a tablet, capsule, lozenge, or liquid
otic	given by drops into the ear
rectal	inserted into the rectum
subcutaneous	injected just under the skin
sublingual	held under the tongue
topical	applied to the skin
transdermal	given through a patch placed on the skin
vaginal	inserted into the vagina

CHAPTER CREDIT

Adapted from Unit 2.1 in Drugs, Health & Behavior by Jacqueline Schwab. CC BY-NC-SA.

IMAGE CREDITS

Genetic Science Learning Center. (2013, August 30) *Drug Delivery Methods*. https://learn.genetics.utah.edu/content/addiction/delivery/

4.3 THE BRAIN

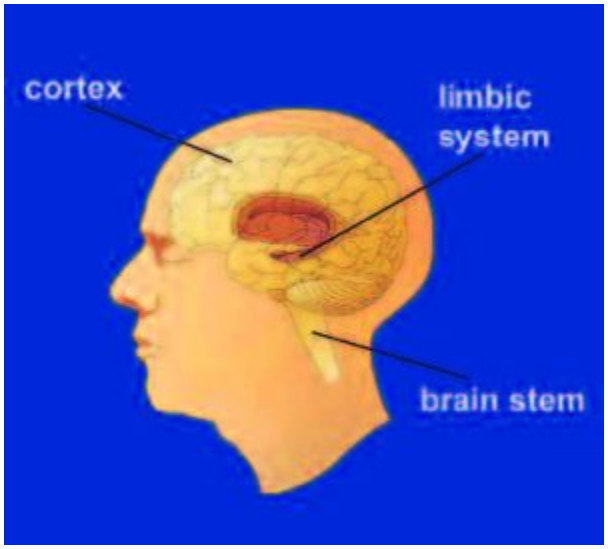
INTRODUCING THE HUMAN BRAIN

The human brain is the most complex organ in the body. This three-pound mass of gray and white matter sits at the center of all human activity—you need it to drive a car, to enjoy a meal, to breathe, to create an artistic masterpiece, and to enjoy everyday activities. In brief, the brain regulates your body's basic functions; enables you to interpret and respond to everything you experience; and shapes your thoughts, emotions, and behavior.

The brain is made up of many parts that all work together as a team. Different parts of the brain are responsible for coordinating and performing specific functions. Substances can alter important brain areas that are necessary for life-sustaining functions and can drive addiction. Brain areas affected by addiction include:

- **The brain stem**, which controls basic functions critical to life, such as heart rate, breathing, and sleeping.
- **The cerebral cortex**, which is divided into areas that control specific functions. Different areas process information from our senses, enabling us to see, feel, hear, and taste. The front part of the cortex, the frontal cortex or forebrain, is the thinking center of the brain; it powers our ability to think, plan, solve problems, and make decisions.
- **The limbic system**, which contains the brain's reward circuit. It links together a number of brain structures that control and regulate our ability to feel pleasure. Feeling pleasure motivates us to repeat behaviors that are critical to our existence. The limbic system is activated by healthy, life-sustaining activities such as eating and socializing—but it is also activated by use and misuse of substances. In addition, the limbic system is responsible for our perception of other emotions, both positive and negative, which explains the mood-altering properties of many substances.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=132#h5p-8

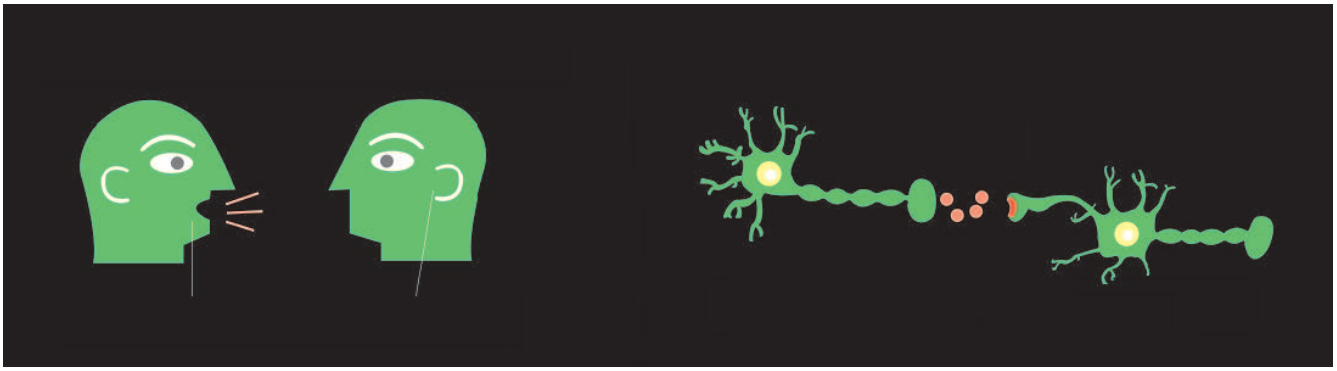


A diagram showing where the cortex, limbic system, and brain stem are in the brain. Credit: National Institute on Drug Abuse

HOW DO THE PARTS OF THE BRAIN COMMUNICATE?

The brain is a communications center consisting of billions of neurons, or nerve cells. Networks of neurons pass messages back and forth among different structures within the brain, the spinal cord, and nerves in the rest of the body (the peripheral nervous system). These nerve networks coordinate and regulate everything we feel, think, and do.

- Neuron to Neuron – Each nerve cell in the brain sends and receives messages in the form of electrical and chemical signals. Once a cell receives and processes a message, it sends it on to other neurons.
- Neurotransmitters—The brain's chemical messengers – The messages are typically carried between neurons by chemicals called neurotransmitters.
- Receptors: The brain's chemical receivers- "The neurotransmitter attaches to a specialized site on the receiving neuron called a receptor. A neurotransmitter and its receptor operate like a "key and lock," an exquisitely specific mechanism that ensures that each receptor will forward the appropriate message only after interacting with the right kind of neurotransmitter.
- Transporters—The brain's chemical recyclers – Located on the neuron that releases the neurotransmitter, transporters recycle these neurotransmitters (that is, bring them back into the neuron that released them), thereby shutting off the signal between neurons.



To send a message, a brain cell (neuron) releases a chemical (neurotransmitter) into the space (synapse) between it and the next cell. The neurotransmitter crosses the synapse and attaches to proteins (receptors) on the receiving brain cell. This causes changes in the receiving cell—the message Transmitter Receptor Neurotransmitter Receptor is delivered. Concept courtesy of: B.K. Madras. Credit: National Institute on Drug Abuse

CHAPTER CREDIT

Adapted from Unit 2.3 in Drugs, Health & Behavior by Jacqueline Schwab.

IMAGE CREDITS

- Diagrams from: National Institute on Drug Abuse. (2010). *Drugs, Brain, and Behaviour: The Science of Addiction* (pp. 15-16). http://preventiontrainingservices.com/resources/sciofaddiction.pdf

4.4 THE BRAIN AND NERVOUS SYSTEM

THE HUMAN BRAIN AND NERVOUS SYSTEM

This video from the National Institute on Drug Abuse (NIDA) covers the major structures and functions of the brain.[1]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=134#oembed-1

THE NERVOUS SYSTEM

The following videos from CTE Skills[2] and CrashCourse[3] provide you with an introduction to the nervous system. In the first video from CTE Skills, please pay particular attention at minute marker 6:40 when it explains the concepts of the parasympathetic nervous system & the sympathetic nervous system.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=134#oembed-2

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=134#oembed-3

1. National Institute on Drug Abuse. (2016). T*he human brain: Major structures and functions.* [Video]. Youtube. https://youtu.be/44B0ms3XPKU
2. CTE Skills. (2017). *The nervous system in 9 minutes.* [Video]. Youtube. https://youtu.be/44B0ms3XPKU
3. CrashCourse. (2015). *The nervous system part 1.* [Video]. Youtube. https://youtu.be/qPix_X-9t7E

CHAPTER CREDIT

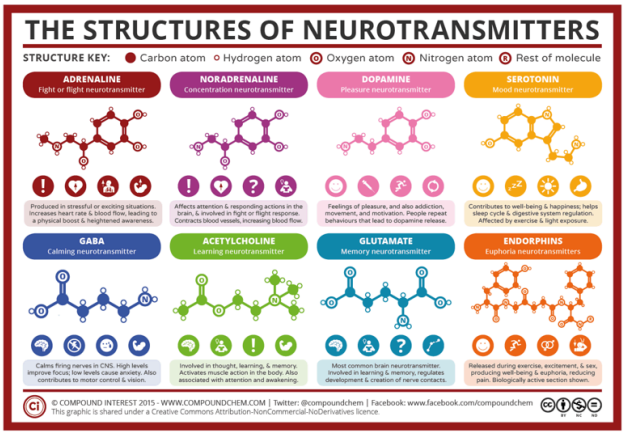
Adapted from Unit 2.2 in Drugs, Health & Behavior by Jacqueline Schwab.

4.5 THE IMPACT OF SUBSTANCES ON THE BRAIN

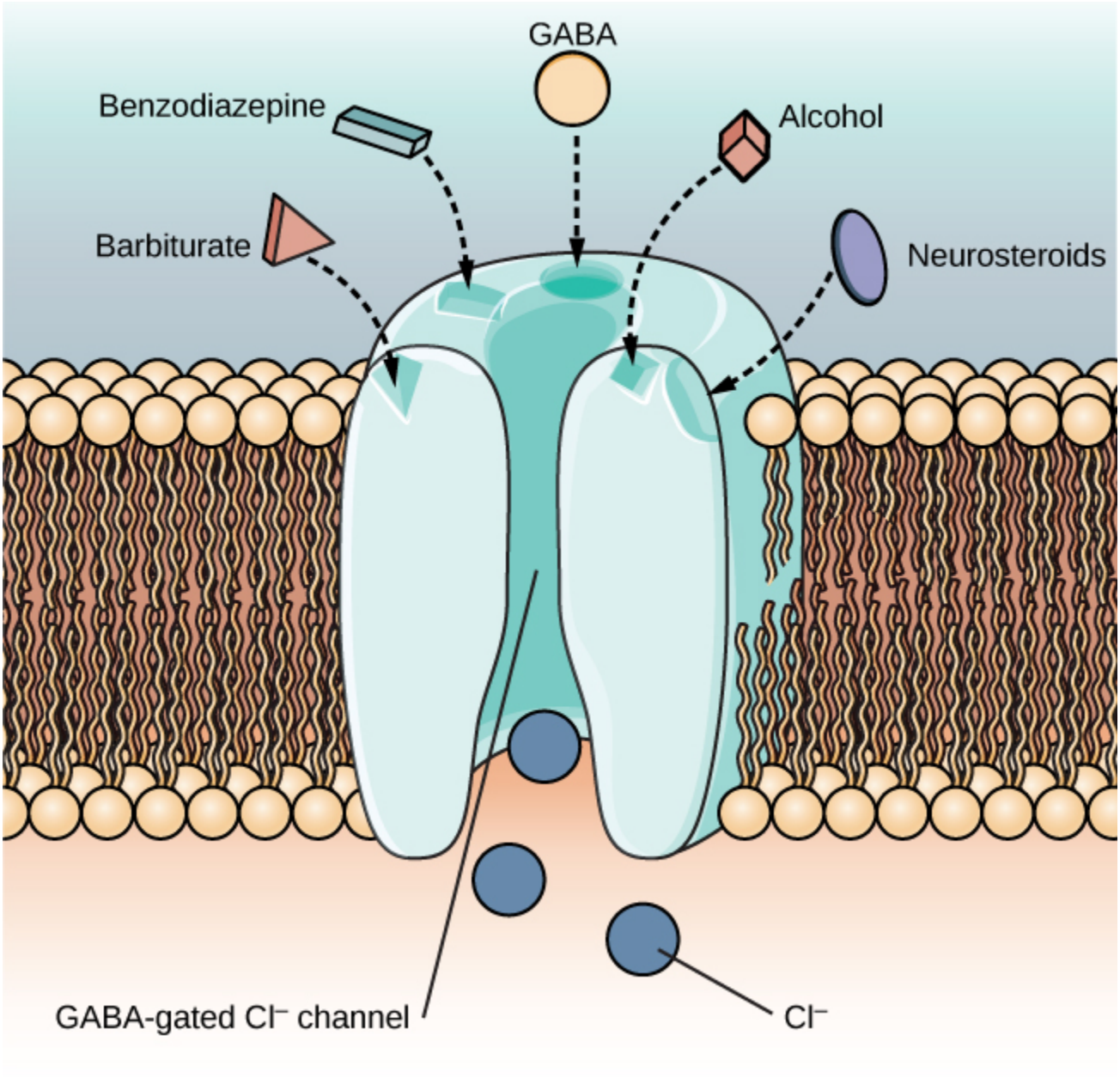
Have you ever experienced an altered state of consciousness? If you sleep on a regular basis, you have! Sleeping is one way in which our mind is transformed. Remember our discussions on caffeine? Even a cup of coffee has an impact on your brain! Here we will discuss the various substances and their impact on the brain.

DEPRESSANTS

As we discussed earlier, alcohol is a depressant, which tends towards reducing central nervous system activity. Depressants serve as agonists of the Gamma-Aminobutyric Acid (GABA) neurotransmitter system. Because GABA has a quieting effect on the brain, GABA agonists also have a quieting effect; these types of substances are often prescribed to treat both anxiety and insomnia.



The Structures of Neurotransmitters. Credit: Compound Interest CC BY-NC-ND 4.0. Long Description.



An illustration of a GABA-gated chloride channel in a cell membrane. Credit: OpenStax Psychology 2e

The GABA-gated chloride (Cl-) channel is embedded in the cell membrane of certain neurons. The channel has multiple receptor sites where depressants bind to exert their effects. The binding of these molecules opens the chloride channel, allowing negatively-charged chloride ions (Cl-) into the neuron's cell body. Changing its charge in a negative direction pushes the neuron away from firing; thus, activating a GABA neuron has a quieting effect on the brain.As noted with the various substances in Chapter 3, the physical dependence to depressants, particularly alcohol can be life threatening. Withdrawal management is done in a medical facility under the supervision of health care providers.

STIMULANTS

Stimulants are substances that increase overall levels of neural activity. Many of these substances

act as agonists of the dopamine neurotransmitter system. Dopamine activity is often associated with reward and craving; therefore, substances that affect dopamine neurotransmission can be misused.

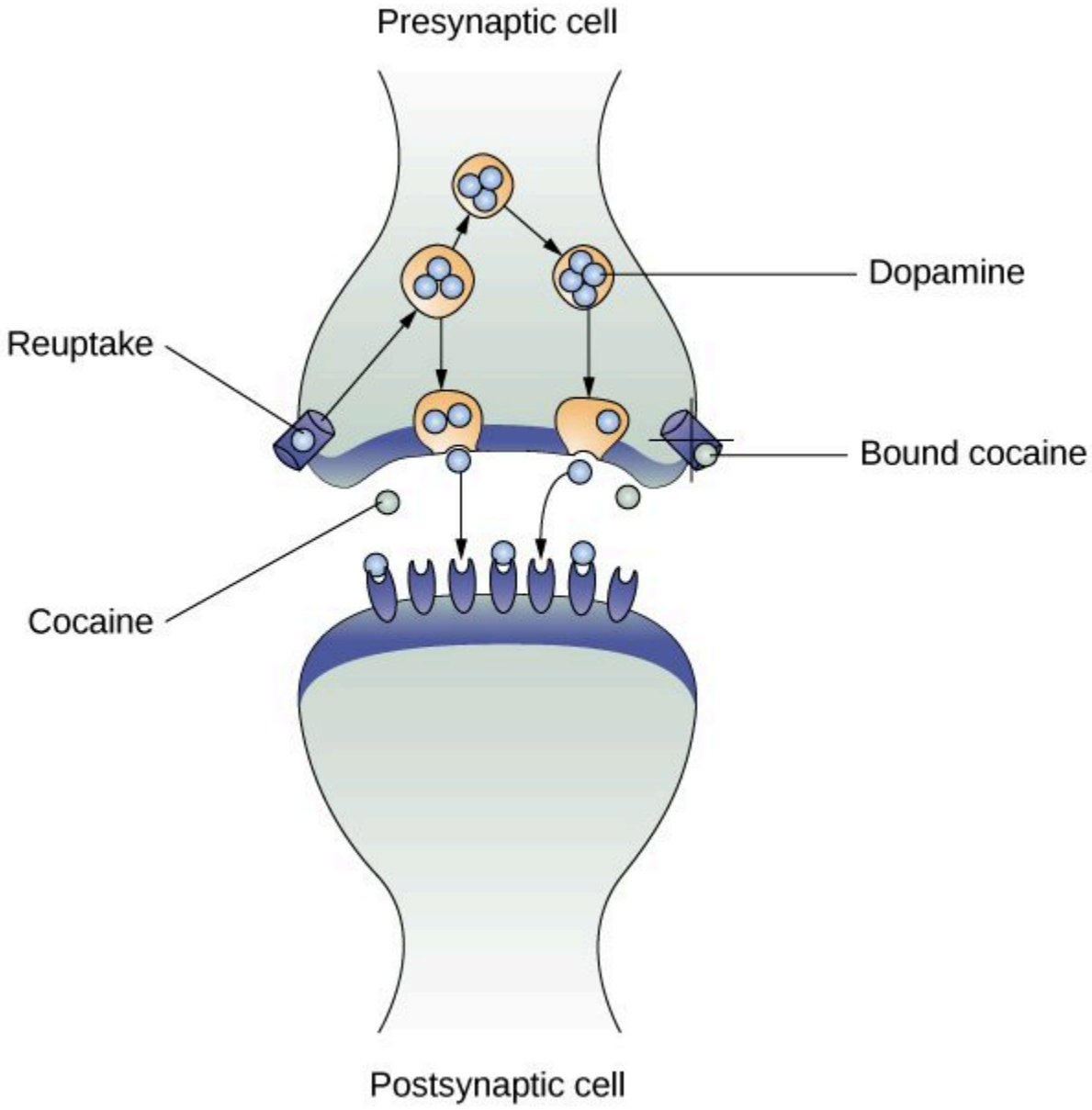


Diagram of presynaptic and postsynaptic cell. Credit: OpenStax Psychology 2e

As one of their mechanisms of action, cocaine and amphetamines block the reuptake of dopamine from the synapse into the presynaptic cell.

Stimulants like cocaine, amphetamine and MDMA create a euphoric high, feelings of intense elation and pleasure, especially in those who take the substance via intravenous injection or smoking.

Food For Thought

- Do you use caffeine? If yes, how much?

- When do you consume your caffeine and where does it come from? Soda, coffee, energy drinks?
- Compare the amount of caffeine in energy drinks, soda, coffee and tea from an evidence based source. What is a safe amount of daily caffeine consumption?

Nicotine is associated with increased risks of heart disease, stroke, and a variety of cancers. Nicotine exerts its effects through its interaction with acetylcholine receptors. Acetylcholine functions as a neurotransmitter in motor neurons. In the central nervous system, it plays a role in arousal and reward mechanisms. Nicotine is most commonly used in the form of tobacco products like cigarettes or chewing tobacco; therefore, there is a tremendous interest in developing effective smoking cessation techniques. To date, people have used a variety of nicotine replacement therapies in addition to various psychotherapeutic options in an attempt to discontinue their use of tobacco products.

OPIOIDS[1]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=139#oembed-1

Opioids are substances that include heroin, morphine, methadone, and codeine. Opioids have analgesic properties; that is, they decrease pain. Humans have an endogenous opioid neurotransmitter system—the body makes small quantities of opioid compounds that bind to opioid receptors reducing pain and producing euphoria. Thus, opioids mimic this endogenous painkilling mechanism. There are both natural opiates, opium, which is a naturally occurring compound found in the poppy plant and synthetic versions of opiates that have very potent painkilling effects. These are the substances, like fentanyl, that you may hear in the news.

HALLUCINOGENS[2]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=139#oembed-2

Hallucinogens alter sensory and perceptual experiences. In some cases, people experience vivid visual hallucinations. It is also common for these types of substances to cause hallucinations of body sensations (e.g., feeling as if you are a giant or can fly) and a skewed perception of the passage of time.

1. National Geographic. (2017). T*his is what happens to your brain on opioids.* [Video]. Youtube. https://www.youtube.com/watch?v=NDVV_M__CSI
2. Brief Brain Snacks. (2019). *Your brain on LSD and other hallucinogens.* [Video]. Youtube. https://www.youtube.com/watch?v=Kr0WU-6J79k

As a group, hallucinogens are incredibly varied in terms of the neurotransmitter systems they affect. Mescaline and LSD are serotonin agonists, and ketamine (an animal anesthetic) act as antagonists of the NMDA glutamate receptor.

Let us review your learning and try the drag and drop activity below.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=139#h5p-10

CHAPTER CREDIT

Adapted from Unit 1.2 in Drugs, Health & Behavior by Jacqueline Schwab. Content condensed and rewritten to improve clarity.

IMAGE CREDITS

- Diagram of the Structure of Neurotransmitters from: Compound Interest (2015), shared under CC BY-NC-ND 4.0.
- GABA-gated chloride channel diagram from the unit Substance Use and Abuse in *Psychology 2e* by Spielman et al published by OpenStax under a CC BY licence.
- Presynaptic and postsynaptic diagram from the unit Substance Use and Abuse in *Psychology 2e* by Spielman et al published by OpenStax under a CC BY licence.

4.6 SELF CARE

Creating a community of practice is one way Social Service workers can engage in self care. Communities of practice are groups of individuals who gather together to share information, resources and best practice.

Example

- What is a Community of Practice by the Edmonton Regional Learning Consortium (ERLC), CC BY-NC-SA.

Review the Community of Practice website to see how a community of practice can come together[1].

How can you create a community of practice with your peers?

1. Edmonton Regional Learning Consortium. (2016). *What is a community of practice?* . https://www.communityofpractice.ca/background/what-is-a-community-of-practice/

CHAPTER 5: PROCESS ADDICTION

Learning Objectives

By the end of this chapter you should be able to:

1. Discuss the various types of process or behavioural addictions
2. Identify process or behavioural addictions and the impact on individuals and communities

5.1 OVERVIEW

WHAT DO YOU LIKE TO DO?

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=151#h5p-12

If any of these apply to you, awesome, you are a human being with likes and dislikes! As humans we participate in any number of activities and behaviours depending on a multitude of factors including our exposure to activities, our upbringing, our socio-economic status and more. Have you ever thought about what you do when you are feeling stressed? Do these same activities apply, or do you do something else completely? If you are like some, you may ignore what is going on around you, including the problem you are dealing with (sometime called turtling).

Turtle hiding in its shell. Credit: Hiding by Simon Law CC BY-SA 2.0.

What happens when a behaviour that we find rewarding becomes an issue or a problem? One of the questions we should ask is who decides a behaviour is an issue: an individual, a community, or a society? This will help us unpack whether a behaviour is concerning, and the ways we might address it.

Food For Thought

- What are your favorite activities?
- Are your activities hobbies? Part of your job?
- How much time do you spend doing them?
- Is there a cost associated? How much have you spent on this activity?
- Is this an activity you do to make yourself happy when you are feeling sad/stressed/angry/upset?
- Do you do different activities when you are feeling unhappy feelings?

As noted above, most people have activities they enjoy doing, and activities that help them cope with life's daily stressors as well as more significant stresses or even traumatic experiences. Coping skills are important, and as Social Service workers, having a set of effective coping skills for managing stress is important. You can help your clients discover coping skills that are healthy.

5.1A ACTIVITIES

1. Brainstorm possible coping strategies for life stress.
2. Brainstorm possible coping strategies for work stress.
3. Compare and contrast. Are there differences? Why do you think so?

The term 'addiction' and more recently substance use disorder describes a person's use of substances and incorporates several features, such as repetitive engagement in behaviours that are rewarding, loss of control, persistent use despite negative consequences, and physical dependence, evidenced by withdrawal.[1] If this is the criteria for a substance use disorder, is it possible for a behaviour to fall in this category. When does an activity become an addiction or disorder?

5.1B ACTIVITY

1. Debate "addiction" as theorized and defined above. Can a person experience this with a behaviour? Why or why not?

Please watch the video[2] below to further your understanding of the concept of process addiction.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=151#oembed-1

According to the American Psychiatric Association, a behaviour can be a disorder: "behavioural addictions result in a failure to resist an impulse, drive, or temptation to perform an act that is

1. Chamberlain, S., Lochner, C., Stein, D., Goudriaan, A., Van Holst, R., Zohar, J., & Grant, J. (2015). Behavioural addiction—A rising tide? *European Neuropsychopharmacology, 26*(5), 841-855. https://pubmed.ncbi.nlm.nih.gov/26585600/
2. Sunrise Residential Treatment Centre. (2015, May). *What is a process addiction?* [Video]. YouTube. https://www.youtube.com/watch?v=oZjZcSOGj6o

harmful to the person or to others".[3] This would suggest many activities and Grant et al.,[4] suggest that "behavioural addictions include pathological gambling, kleptomania, pyromania, compulsive buying, compulsive sexual behaviour, Internet addiction, and binge eating disorder"[5]; however according to the DSM-V, only one behaviour is currently considered a disorder: gambling.

Food For Thought

- Why do you think is gambling the only activity that is considered a disorder?
- Who makes the decisions on what is considered a disorder or addiction?
- Is a compulsion an addiction? Why or why not?
- Are there other activities that you think should be included? Why?

The research is emerging on process addiction as well as treatment types for behaviours; however, various activities including eating, shopping, sexual behaviours, internet use, and others are not considered a disorder or addiction. Why? At this time there does not seem to be a consensus among researchers on process/behavioural addiction related to the DSM-V. For this text, we will examine gambling in section 5.2, as identified/quantified in the DSM -5 as a disorder. "Of existing disorders, only gambling had enough in common with substance use disorders to justify its inclusion".[6] We will also examine other disorders as suggested by Grant et al.[7]

It is possible for other behaviours including compulsive shopping, internet use/gaming, and sexual behaviour to be considered a disorder though they are not a part of the DSM-V. The World Health Organization would suggest other behaviours be considered as they have "held annual meetings since 2014 to discuss pressing needs, research agendas and policy initiatives related to Internet use, with gaming disorder being proposed as a formal diagnosis".[8]

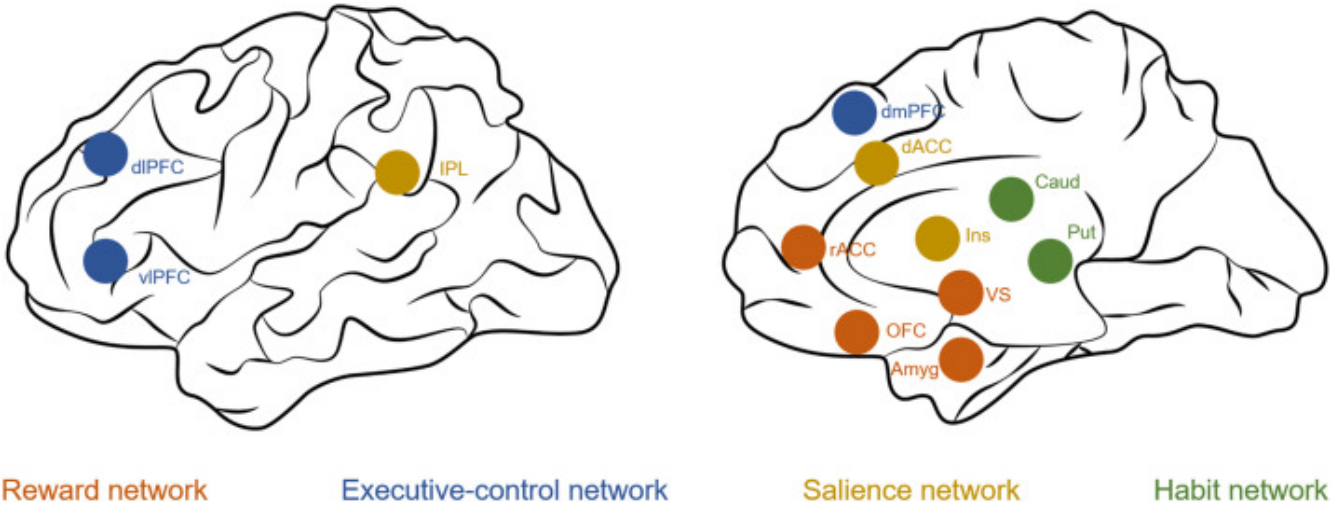
3. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders*. 5th edition. https://journals.sagepub.com/doi/pdf/10.1177/070674371305800502
4. Ibid.
5. Ibid.
6. Grant, J. E., & Chamberlain, S. R. (2016). Expanding the definition of addiction: DSM-V vs. ICD-11. *CNS Spectrums, 21*(4), 300–303. https://doi.org/10.1017/S1092852916000183
7. Grant, J. E., Schreiber, L., & Odlaug, B. (2013). Phenomenology and treatment of behavioural addictions. *Canadian Journal of Psychiatry, 58*(5), 252-259. https://journals.sagepub.com/doi/pdf/10.1177/070674371305800502
8. Potenza, M., Higuchi, S., & Brand, M. (2018). Call for research into a wider range of behavioural addictions. *Nature, 555*(7694), 30. https://doi.org/10.1038/d41586-018-02568-z

5.1C ACTIVITIES

1. Research 3 current studies on process addiction excluding gambling. What did you find?
2. Who is doing the research?
3. Who is publishing the research?
4. What theories are associated with behaviours as process addiction?

How are process addiction and substance use disorders similar? It has been suggested "that some conditions, such as gambling disorder, compulsive stealing, compulsive buying, and compulsive sexual behavior, and problem internet use, have phenomenological and neurobiological parallels with substance use disorders".[9]

For clients who have compulsive sexual behaviours and those who have substance use disorders, brain activity is mirrored in the areas of the ventral striatum, dorsal anterior cingulate and amygdala.[10] If you examine these parts of the brain, the ventral striatum focuses on reward and motivation; the dorsal anterior cingulate anticipates rewards and cravings.[11] It seems as if the behaviour triggers the brain and while it may not be as quick or intense as a substance there is still an impact on the reward areas of the brain.



Networks of the Brain. Credit: Antons, S., Brand, M., & Potenza, M. N.

9. Grant, J. E., Schreiber, L., & Odlaug, B. (2013). Phenomenology and treatment of behavioural addictions. *Canadian Journal of Psychiatry, 58*(5), 252-259. https://journals.sagepub.com/doi/pdf/10.1177/070674371305800502
10. Voon, V., Mole, T. B., Banca, P., Porter, L., Morris, L., Mitchell, S., Lapa, T. R., Karr, J., Harrison, N. A., Potenza, M., & Irvine, M. (2014). Neural correlates of sexual cue reactivity in individuals with and without Compulsive Sexual Behaviours. *PLoS ONE*, 9(7), 1-10. https://pdfs.semanticscholar.org/a413/18f2d3bb6c04796113adb93c74e86ccd63b9.pdf?_ga=2.263209419.690242277.1636907049-69174705.1620417751
11. Ibid.

5.1D ACTIVITY

1. Refer to Chapter 4 and review the impact of a substance on the brain, on the body, tolerance, and withdrawal. Compare and contrast with process addiction. What did you find?

As Social Service workers, continuing your own evidence-based research will be helpful when working with individuals who are engaging in process addiction. This may help you help them identify and reduce the harms associated with any of these behaviours and promote healthier choices.

IMAGE CREDITS

- Hiding by Simon Law via flickr is licensed under CC BY-SA 2.0.
- Networks of the brain from: Antons, S., Brand, M., & Potenza, M. N. (2020). Neurobiology of cue-reactivity, craving, and inhibitory control in non-substance addictive behaviors. *Journal of the Neurological Sciences*, *415*, 116952. https://doi.org/10.1016/j.jns.2020.116952

5.2 GAMBLING

Have you ever participated in a game of chance? Think back to your childhood, did you ever go to a carnival and pay to win a prize? Did you pay for the lucky dip in the fishpond? What about using the term "I bet you"…have you ever said these words? Did you really place a bet or wager or was that a figure of speech?

This section of our text is going to explore problem gambling and games of chance as part of the diagnosable illness in the DSM-V.

Rubber ducks in a kiddy pool. Credit: Rubber Ducky Carnival Game by Linnaea Mallette CC0 Public Domain.

5.2A ACTIVITIES

1. Define game of chance and gambling in your own words.
2. Where would you go to participate in this activity (list as many ways possible).

As we discovered in section 5.1, gambling is the one process addiction to make it to the DSM-V. What is gambling? Gambling is placing a bet (monetary, time, services or other) with the possibility of a desired result (monetary, services, time or other).[1] According to Kingston, Frontenac, Lennox, and Addington Public Health[2], 76% to 79% of adult Canadians participate in some form of gambling in a year. What does this suggest? It is important to consider we cannot look at gambling in binary terms, just as we cannot examine substance use in this way. Let us start with challenging negative feeling about gambling: what if gambling is connected to a good cause?

1. Canadian Partnership for Responsible Gambling (2015). *Overview*. http://www.cprg.ca/About
2. Kingston, Frontenac, Lennox & Addington Public Health (2021). *Prevalence of gambling disorders*. https://www.kflaph.ca/en/research-and-reports/gambling-and-gaming-disorders.aspx

5.2B ACTIVITIES

1. Is gambling positive or negative, or either, or neither, or something else entirely?
2. Research local hospital organizations, non-profit organizations, community groups and other groups in your community.
3. Have they ever used gambling as a way of fundraising? How?
4. What was the result?
5. Have you participated in one of these events?
6. What was the result?

Based on your research, you may have found many organizations use games of chance to support their fundraising budget, for example, QE 11 Home Lottery. What does this suggest about how Canadians feel about gambling?

Food For Thought

- When does gambling become harmful?
- What are the ways in which gambling can impact an individual? A family? A community?

Let us look at the ways gambling is problematic for some people.[3]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=154#oembed-1

In this example, gambling had a significant impact on Joe, not just financially but mentally.

3. The Fifth Estate. (2017, Dec. 8). *Gambling on addiction: How governments rely on problem gamblers.* [Video]. YouTube. https://www.youtube.com/watch?v=m3aDOTSqh94

5.2C ACTIVITIES

1. After watching the Fifth Estate, take a moment and think about Joe. What kind of life did Joe have? What impact has gambling had on Joe's life?
2. What is "the machine zone" with Electronic Gaming Machines (EGM's)?
3. What does winning do to your brain?
4. How are EGMs designed?
5. Do you believe banned gambling is a form of treatment? Why?/Why not?
6. Are there responsible gambling programs?
7. What is the responsibility of the government for supporting people with a gambling addiction?
8. What is the responsibility of casinos for supporting people with a gambling addiction?

According to Grant and Chamberlain,[4]

> many people with gambling disorder report an urge or craving state prior to gambling, as do individuals with substance addictions; gambling often decreases anxiety and results in a positive mood state or "high," like substance intoxication; and emotional dysregulation often contributes to gambling cravings just as with alcohol or drug cravings. [5]

This indicates there are similarities between gambling and substance use. When we examine risk factors, identified by Allami et al.,[6] they include access to gambling opportunities, speed of reinforcement, socio-demographic, and psycho-social factors.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=154#h5p-13

Did you know young men (male identifying) are those who are the most vulnerable for developing a gambling disorder?[7] Studies also suggest individuals living with mental health disorders are at a

4. Grant, J. E., & Chamberlain, S. R. (2016). Expanding the definition of addiction: DSM-V vs. ICD-11. *CNS Spectrums*, *21*(4), 300–303. https://doi.org/10.1017/S1092852916000183
5. Ibid.
6. Allami, Y., Hodgins, D., Young, M., Brunelle, N., Currie, S., Dufour, M., & Nadeau, L. (2021). A meta-analysis of problem gambling risk factors in the general adult population. *Addiction, 116*(11), 2968-2977. https://doi.org/10.1111/add.15449
7. Williams, R. J., Volberg, R. A., & Stevens, R. M. (2012). *The population prevalence of problem gambling: Methodological influences, standardized rates, jurisdictional differences and worldwide trends.* Ontario Problem Gambling Research Centre. https://opus.uleth.ca/bitstream/handle/10133/3068/2012-PREVALENCE-OPGRC%20(2).pdf

higher risk for developing a gambling disorder, in comparison to those with substance use disorders, though approximately 50% of participants with gambling disorder report substance abuse, and up to 63% of individuals seeking treatment for gambling disorder screen positive for lifetime substance use disorder.[8] Substance use and gambling together (for example, drinking and playing an EGM) are factors that an individual can control.[9] This is important to remember when developing harm reduction and health promotion programs and interventions for groups with gambling disorders.

5.2D ACTIVITIES

1. What are other risk factors for a gambling disorder?
2. What are the factors that individuals can control when it comes to gambling? What are the factors that cannot be controlled?
3. Review five sources of gambling advertisements. Who do you think they target?
4. Design a prevention activity that targets young male identifying individuals and communities. What factors do you need to include?
5. Develop a responsible gambling promotional material. What do you need to include?

WHAT IS PROBLEM GAMBLING?

When you have difficulty putting limits on time or money spent betting on activities or events based largely on chance[10] you may have a gambling disorder. When working with individuals with mental health issues, Social Service workers must be aware of the risk factors and provide a holistic model of care. Knowing that gambling is one factor in a client's life will be helpful as you work with them (remember intersectionality). This means working with the client and understanding their determinants of health. You must also help your client determine whether they are ready to address their gambling problem. If a client is interested in working with you to improve their gambling fortunately there are treatment options in Canada.

8. Grant, J. E., & Chamberlain, S. R. (2016). Expanding the definition of addiction: DSM-V vs. ICD-11. *CNS Spectrums*, *21*(4), 300–303. https://doi.org/10.1017/S1092852916000183
9. Allami, Y., Hodgins, D., Young, M., Brunelle, N., Currie, S., Dufour, M., & Nadeau, L. (2021). A meta-analysis of problem gambling risk factors in the general adult population. *Addiction, 116*(11), 2968-2977. https://doi.org/10.1111/add.15449
10. Centre for Addiction and Mental Health. (2018). *Problem gambling and technology use treatment groups.* https://www.camh.ca/-/media/files/pg-group_treatment-pdf.pdf

5.2E ACTIVITIES

1. Brainstorm as many options for where a person could obtain treatment for gambling in your community.
2. Is there a waitlist?
3. How long is treatment?
4. What are the supports available?

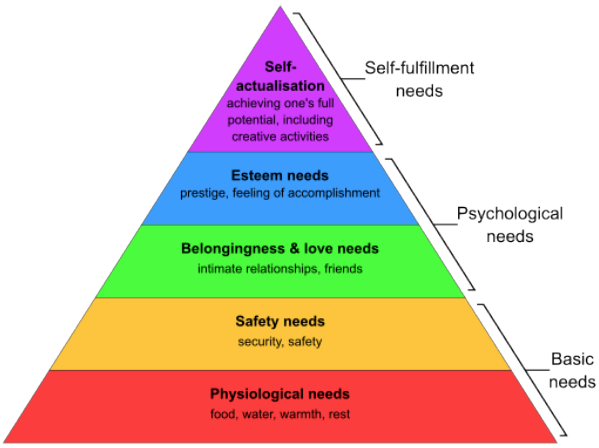
Regardless of your personal feelings about gambling, just as you would work with an individual with a substance use disorder in a nonjudgmental and caring way, you will work with individuals with problem gambling with the same kindness and respect. Knowing that gambling is a disorder with treatment options will improve your practice and improve the care your clients receive.

IMAGE CREDITS

Rubber Ducky Carnival Game by Linnaea Mallette via Public Domain Pictures is licensed under CC0 Public Domain

5.3 COMPULSIVE EATING, SEXUAL BEHAVIOURS, & INTERNET USE

The definition of "behavioural addictions has been recently expanded by health researchers in Canada, including CAMH, to encompass any behaviour characterized by (i) a feeling of tension or arousal before the action, (ii) gratification and/or relief at the time of executing the act, (iii) an inability to resist an urge or drive even against great obstacles or dangers, and (iv) the absence of consideration for the negative consequences that may affect family, friends, or work,[1] though this is not yet reflected in the DSM-V. While it is important to note that only gambling has made it to the DSM-V, behavioural addictions is a field in which there are many studies currently taking place. As we do not look at any of the disorders in this text in a binary (as neither black or white, positive nor negative), we must use an open approach to exploring the behaviours listed below. For this work there is a short list of behaviours that have been associated with addictions.



Maslow's Hierarchy of Needs, Simplified. Credit: Androidmarsexpress CC BY-SA 4.0. Long Description.

COMPULSIVE EATING

Food is a basic physiological need and we need food to survive. Based on Maslow's hierarchy of needs below, there are many other needs from physiological to safety all the way to self-actualization. What role does food play in your life? Have you ever participated in a gathering with friends of family with food? Food has an important place in ceremony in Canada, from holiday celebrations to graduations to religious ceremonies and everywhere in between. Knowing the role that food has, as a basic need, and the way we use food, it is not surprising that our relationship with food is complicated. When does food become a problem? Have you ever used food to cope with a loss, stress, a difficult time? Some individuals use food as a coping mechanism, like the way an individual would use a substance. While the biological reaction a body has is different to food than to a substance, it has increasingly been suggested that some eating habits, such as the uncontrolled intake of high-calorie food rich in sugar and fat can be referred to as "food addiction" (Sauvaget et al., 2015).

1. Fattore, L., Melis, M., Fadda, P., & Fratta, W. (2014). Sex differences in addictive disorders. *Frontiers in Neuroendocrinology, 35*(3), 272-284. https://doi.org/10.1016/j.yfrne.2014.04.003

5.3A ACTIVITIES

1. Identify risk factors associated with "food addiction"
2. Identify harms associated with "food addiction"
3. Identify programs that support individuals with food related addictions in your community.
4. Research an intervention that targets a specific demographic for "food addiction."
5. Share your top 3 learnings.

COMPULSIVE SEXUAL BEHAVIOURS (CSB)

What is Compulsive Sexual Behaviour (CSB)? CSB is "characterized by recurrent and intense normophiliac or paraphilic sexually arousing fantasies, sexual urges, and behaviors that cause clinically significant distress in social, occupational, or other important areas of functioning".[2] The behaviours can include "Masturbation; Pornography; Sexual Behavior with Consenting Adults; Cybersex; Telephone Sex; Strip Clubs; or other" (p. 254). Like other disorders, CSB has compulsions, which manifest in sexual behaviour; "the sexual activity while initially resisted, are enacted to reduce anxiety and are often followed by feelings of distress" (p. 255). It can affect all genders; however, research currently suggests those who identify as male report CSB more frequently (p. 255). There are similarities between CSB and substance abuse, for example "withdrawal symptoms such as depression, anxiety, rumination, and guilt related to a reduction of sexual activities, as well as difficulties to stop or reduce the frequency of sexual activities" (p. 255). As other researchers in this area have noted, "excessive sex in itself is not necessarily problematic" (Griffiths, 2016, p. 2017); it is when the behaviour becomes problematic for the individual that we can consider CSB as a problem. The research on CSB as an addiction or disorder is not clear, therefore for the purpose of this text, let us examine some of the risks associated with CSB and address harm reduction interventions.

5.3B ACTIVITIES

1. What is the age of consent in Nova Scotia?
2. What are the risks associated with many sexual partners?
3. How can you reduce these risks?

2. Garcia, F., & Thibaut, F. (2010). Sexual addictions. *The American Journal of Drug and Alcohol Abuse, 36*(5), 254-260. https://pubmed.ncbi.nlm.nih.gov/20666699/

4. How can you ensure appropriate boundaries when working with individuals who live with compulsive sexual behaviours?
5. What community agencies can provide information and support for reducing harms associated with compulsive sexual behaviours?

When it comes to sexual activity and sexual behaviours in Canada, we are bombarded with messages daily. What is normal? What is excessive? What is appropriate, particularly when it comes to sex and gender. We are now in the age of the #MeToo movement, which has been a reckoning of sorts for people with many individuals in positions of power being investigated for sexualized violence.

5.3C ACTIVITIES

1. Read the following article: https://www.nytimes.com/interactive/2018/10/23/us/metoo-replacements.html
2. What is one learning?

The results of #MeToo are still being felt; this has shone a light on known facts including women being at an increased risk of sexualized violence in Canada[3]. What does this have to do with compulsive sexual behaviour? Sex, gender, and sexuality are inextricably linked.

5.3D ACTIVITIES

1. Reflect on the messages you hear about sex and sexuality.
2. What is the appropriate amount or type of sex if you identify as female? As male? As non-binary? As part of the 2SLGBTQ community?
3. Is there a difference?

We do not want to characterize consenting sex and sexual activities as bad or negative and as Social Service workers we must constantly challenge our own beliefs to ensure our clients receive the best care.

3. Canadian Women's Foundation. (2021). The facts about gender based violence. https://canadianwomen.org/the-facts/gender-based-violence/

COMPULSIVE INTERNET USE (CIU)

Laptop. Credit: Ben Kolde on Unsplash

Do you own a phone? A laptop? A desktop computer? How often do you use this/these devices? What purpose do you use them for? If you use your laptop or phone for gaming, you may be surprised to know that gaming is noted in the DSM-V as a behaviour being suggested as needing further research. If you begin to quantify the time spent in front of a screen, would it surprise you? Compulsive internet use, including gaming, is a hot topic in the world of addiction research and it continues to evolve. As with the behaviours identified above there is no consensus as to whether CIU and, gaming, should be defined as an addiction. Are there risks associated with CIU and gaming? Yes, and the risks include a sense of a loss of control, anxiety, depression, and a loss of social skill sets among others (Vasile et al., 2017). Serious problems associated with CIU among adolescents include "refusal to attend school, cognitive problem, physical or psychological disorders, such as anxiety and depression" (Zhang et al., 2020, para. 1).

Food For Thought

- If you are working with youth, why should you be aware of CIU risk factors?
- What supports do you think would be appropriate to someone experiencing CIU?

According to Kuss and Griffiths,[4] people who have CIU experience high levels of distress and negative consequences in their academic, professional, and personal lives. This may be what leads them to treatment. Some specialized treatment includes relaxation techniques, cognitive behavioural therapy, and journaling.[5] Whether you believe CIU to be a disorder that should be considered an addiction or not, it is real for many, and our response as Social Service Workers must be appropriate.

Please watch the following video[6] then complete the activities below.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=158#oembed-1

4. Kuss D. J., & Griffiths M. D. (2015). *Internet addiction in psychotherapy*. Palgrave Publishing.
5. Vasile, D., Vasiliu, O., Vasiliu, D., & Vasile, F. (2017). Cognitive behavioral therapy in Internet addiction – A case series. *European Psychiatry, 41*(S1), S784. https://doi.org/10.1016/j.eurpsy.2017.01.1496
6. Demystifying Medicine. (2019, April 1). *Internet addiction: Is it all in your brain?* https://www.youtube.com/watch?v=8rGZpR5T-WU

5.3E ACTIVITIES

1. Based on this video alone do you think CIU should be considered an addiction? Why or why not? Why does it matter?
2. Can you find other videos with evidence to suggest other ways of looking at CIU?
3. Imagine you are voting yes or no on including other behaviours in the DSM-VI. What do you vote for? Why? Provide at least two recent evidence-based research studies to back up your vote

IMAGE CREDITS

- Maslow's Hierarchy of Needs by Androidmarsexpress via Wikimedia Commons is licensed under CC BY-SA 4.0.
- Image of an open laptop by Ben Kolde on Unsplash

5.4 SELF CARE

Self care in this module will focus on a variety of self-care strategies that may help when you are feeling poorly. What does self-care look like to you? What makes you feel good? Please watch the following video[1] to explore various self care ideas.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=160#oembed-1

1. Headspace. (2020). *Small ways to practice self-care in difficult times: Andy Crisis Wisdom.* [Video]. Youtube. https://www.youtube.com/watch?v=Mqqxi8mt4t0

Additional Resources

- Games of Chance and Addiction with Dr. Lottie Johnson
  A video from the Native Alcohol and Drug Abuse Counselling Association of Nova Scotia.
- Gamblers Anonymous
  A directory of international addresses for Gamblers Anonymous.
- Problem Gambling
  Created by the Centre for Addition and Mental Health.
- Gambling Support Network
  Home page for the Gambling Support Network.

CHAPTER 6: THEORIES

Learning Objectives

By the end of this chapter you should be able to:

1. Explore various theories of substance use
2. Compare and contrast theories
3. Discuss how theories impact service provision and prevention initiatives

6.1 OVERVIEW

There are many theories that hope to explain why individuals use and abuse substances. Theories can also help with interventions, treatment, prevention, relapse and recovery.

In this chapter we will be exploring substance use disorders as a biopsychosocial phenomenon and unpack biological, psychological and social theories of substance abuse. You may choose to explore other theories, there are links to multiple theories of substance use disorders in additional resources.

We will start by an overview on theories below. Watch *Orientation to theories of substance use.*[1]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=167#oembed-1

The concept of substance use disorders has evolved. While a moral model is still prevalent in much of the population, there has been a shift in the medicalization of addressing substance use disorders. The moral model is based on the belief that using substances is a moral failing, related only to individual issue and "using any drug is unacceptable, wrong, and even sinful.[2] Other theories include a biological theory, which suggests it may be the chemistry in our brain or our genetics that makes us susceptible to substance use. There are theories of social dysfunction, psychology, trauma and early experiences as well as theories relating to society, culture and race. There is no one theory that can explain substance use for every person with a substance use disorder: "not everything that counts can be counted, and the healing that involves the making whole of a life involves not seeing different things but seeing everything differently".[3] When we understand these theories and use them together, this is called a biopsychosocial approach and western treatment models generally "implicates numerous biological, psychological and social factors as playing a part in the development of addiction. Consequently, it is considered that all three domains must be considered in treatment".[4]

Understanding theories is important as you will be exploring treatment, prevention and recovery, as well as harm reduction. A theory can help explain a phenomenon like substance use. You do not need to be an expert on theories; however, it is important to understand the theories and begin to explore your own beliefs about substance use and process addiction. Exploring theories

1. Council on Social Work Education. (2021). *Orientation to theories of substance use.* [Video]. Youtube. https://www.youtube.com/watch?v=qQdlvZc9leI&feature=emb_imp_woyt
2. Csiernik, R. (2016) *Substance use and abuse, everything matters,* (p. 52). Canadian Scholars.
3. Krentzman, A. R., Robinson, E. A., Moore, B. C., Kelly, J. F., Laudet, A. B., White, W. L., Zemore, S. E., Kurtz, E., & Strobbe, S. (2010). How Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) work: Cross-disciplinary perspectives. *Alcoholism Treatment Quarterly*, *29*(1), 75–84. https://doi.org/10.1080/07347324.2011.538318
4. Al Ghaferi, H., Bond, C., & Matheson, C. (2016). Does the biopsychosocial-spiritual model of addiction apply in an Islamic context? A qualitative study of Jordanian addicts in treatment. *Journal of Drug and Alcohol Dependence, 172*(14), 1-22. http://dx.doi.org/10.1016/j.drugalcdep.2016.11.019

will help broaden your understanding, and through exploring theories you will have a chance to determine what "makes sense" to you. Theories are also useful in service-provision, when working with individuals who live with a substance use disorder. This means the services you provide may rely on one theory or multiple theories. For example, Alcoholics Anonymous and Narcotics Anonymous use a spiritual model, which sees substance use and substance use disorders as a spiritual deficit[5] and focus on bringing a spiritual component to treatment; "there is a power greater than us as individuals".[6]

Food For Thought

- Reflect on Chapter 1, intersectionality and substance use.
- How did you feel about substance use when we first began?
- How did you imagine those individuals living with a substance abuse disorder?
- Has your preconceived notion changed?

While there are many theories about substance use, this chapter should help you to understand why some people misuse substances. We will start with watching the video below which provides an exploration of some of the more prevalent theories of substance use.[7]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=167#oembed-2

6.1A ACTIVITIES

1. Review the various theories of addiction identified by ALLCEU Counselling (2012). What, if anything, is missing?
2. Compare and contrast two theories.

5. Miller, W. R. (1999). *Conceptualizing motivation and change: Enhancing motivation for change in substance abuse treatment.* U.S. Dept. of Health and Human Services, Public Health Service, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment. http://www.ncbi.nlm.nih.gov/books/NBK64972/
6. Alcoholics Anonymous World Services. (2018). *The "God" word; agnostic and atheist members in A.A,* (p. 5). AA Grapevine, Inc. https://www.aa.org/assets/en_US/p-86_theGodWord.pdf
7. ALLCEU Counselling. (2012, July 18). *Theories of addiction.* [Video]. YouTube. https://www.youtube.com/watch?v=sf2HtrfwiQE&feature=emb_imp_woyt

3. Pick the theories you most closely align with.
4. Can any theory stand alone on its own? Why? Why not?

All these theories separately create a narrower view of substance use and influence how we treat substance use disorders. As our understanding of substance use and substance use disorders continues to evolve, using a perspective which includes an intersectional approach may help us to address some of the societal inequities that put people and communities at risk of substance use disorders. We must be cautious to acknowledge there is no panacea, nor any magic bullet. Substance use is a reality; and Wright[8] suggests "if addiction is 'always already' part of the metaphysics of western culture, it can be hard to be analytical about specific effects at specific times".[9] This means that substance use is engrained in much of Canadian culture from celebrations to daily life and using one lens in one moment to explore substance use is not effective. Theories are one piece of a complicated puzzle.

8. Wright, C. (2015). Consuming habits: Today's subject of addiction. *Subjectivity,* 8, 93–101. https://doi.org/10.1057/sub.2015.6
9. Ibid, p. 97.

6.2 MORAL THEORY

Where does a moral approach to substance use come from? Wright[1] suggests our current moral judgments of addiction begin with a Victorian politic, when "modern man begins to worry that any weakness of moral fiber in the exercise of self-restraint could lead him rapidly away from industry and towards indolence and even idiocy, by way of the bottle, the pipe or the syringe".[2] There are examples of the moral model in Canada, including prohibition and the Controlled Drug and Substances Act, as well as the Criminal Code of Canada. The moral model suggests using a substance is a moral failing which will lead to a path of destruction. It views people who use substances as having a choice to use substances and judges them for using the substances. Listen to the short podcast below.[3] Note the language used. Is this podcast stigmatizing?

LISTEN

The Moral Model by the Centre for Youth AOD Practice Development

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=170#audio-170-1

Food For Thought

- Reflect for a moment on stigma as we discussed in Chapter 1.
- How can you relate the stigma of substance use to the moral model?
- What are some examples?
- How could you help others understand the moral model?

1. Wright, C. (2015). Consuming habits: Today's subject of addiction. *Subjectivity,* 8, 93–101. https://doi.org/10.1057/sub.2015.6
2. Ibid, p. 93.
3. The Centre for Youth AOD Practice Development (n.d.). *The moral model.* https://www.youthaodtoolbox.org.au/sites/default/files/audio/No%20time%20to%20read%3F%20Listen%20instead%21%20The%20Moral%20Model.mp3

The stigma associated with substance use is so prevalent, a recent review by the World Health Organization concluded out of all health disorders, substance use and process addiction disorders were the most stigmatized.[4] Think about the language used to describe substance use disorders and the people who live with them. Stigma and the moral model go hand in hand. "A large body of research indicates that this stigma is persistent, pervasive, and rooted in the belief that addiction is a personal choice reflecting a lack of willpower and a moral failing".[5] The moral model still exists today when you hear statements like "pull up your bootstraps," or "get over it," when talking about a substance use disorder. It seeks to place blame on the person with the substance use disorder. This can impact individuals who use substances, who may see themselves as having failed, especially when it comes to treatment and recovery.

The following video may help you understand how some view substance use.[6]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=170#oembed-1

Food For Thought

- Reflect on Nuggets
- What do you think this video promotes (abstinence, prevention, harm reduction, recovery?) Why?
- Is this video helpful in explaining substance use?

Treatment methods generally have moved beyond a moral model. For example, programs that offer a harm reduction approach are a direct challenge to the moral model, as they offer a lack of judgment and support people "where they are," embracing the stages of change and allowing for engagement at each level of pre-contemplation, contemplation, preparation, action, and relapse.

4. Rundle, S. M., Cunningham, J. A. & Hendershot, C. S. (2021, January 25). Implications of addiction diagnosis and addiction beliefs for public stigma: A cross-national experimental study. *Drug and Alcohol Review, 40*(5), 842-846. https://doi.org/10.1111/dar.13244
5. McGinty E. E., & Barry C. L. (202, April 2). Stigma reduction to combat the addiction crisis –Developing an evidence base. *New England Journal of Medicine, 382*(14),1291-1292. https://www.nejm.org/doi/full/10.1056/NEJMp2000227
6. FilmBilder & Friends. (2014, Oct. 13). *Nuggets.* [Video]. Youtube. https://www.youtube.com/watch?v=HUngLgGRJpo

6.2A ACTIVITIES

1. Review the Government of Canada's Background Document strengthening-canada-approach-substance-use-issue
2. Can you find examples of moral theory?

The field of Social Services is working to move beyond a moral model of substance use disorders. You can help people make their own decisions (self-efficacy) and advocate for services to improve the lives of people who use substances and live with SUDs.

6.3 BIOLOGICAL THEORY

Some researchers believe that substance use disorders are a biological phenomenon; "efforts to target addictions require consideration of how the improved biological understanding of addictions may lead to improved prevention, treatment and policy initiatives".[1] The biological theory of substance use helps us understand how substances impact our brain and the changes that happen. Please watch the following short video on how substances impact the brain.[2]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=172#oembed-1

If you think about any activity you participate in, if it makes you feel good, chances are that when you participate your brain is releasing dopamine. If you remember in Chapter 4, we learned dopamine is a neurotransmitter that impacts the reward centre of the brain. Your brain typically releases dopamine when you participate in behaviours or activities that make you feel good. This is released each time you repeat a behaviour.

Food For Thought

- What are the activities you participate in that give you a pleasant feeling?
- How often do you participate in those activities?
- Why do you think these activities make you feel good beyond the dopamine release?

When you take a substance, especially opiates, your brain releases dopamine. Every time you take that substance, your brain, and the dopamine it produces are remembering that "feel good" feeling and reinforcing it. For a person living with a substance use disorder, every time they use a substance it triggers adaptations in dopamine production. Using a biological theory to explore how substances impact the brain can help with the development of treatment that focuses specifically on the brain. For example, Methadone Maintenance Treatment (MMT) is a treatment that focuses on the biology

1. Potenza M. N. (2013). Biological contributions to addictions in adolescents and adults: Prevention, treatment, and policy implications. *The Journal of Adolescent Health, 52*(2), 22-32. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3935152/
2. Killing Pain. (2018, Aug. 29) *The biology of addiction: Killing pain episode 2.* [Video]. Youtube. https://www.youtube.com/watch?v=yMoL4i28hVw

of an opiate use disorder and benzodiazepines have been used to target the biology of alcohol withdrawal symptoms.[3]

We can use biological theory to help us understand the vulnerabilities of some to a substance use disorder. What is a vulnerable individual? A vulnerable individual may be someone who has a unique physiology (mental health disorder, brain disorder, or physical disorder). Certain groups, particularly adolescents and young adults, may be vulnerable to developing a substance use disorder at certain ages, due to the stages of brain development. Specific brain regions, like the amygdala typically mature slower, impacting decision making, which may be a reason why some youth struggle with substance use.[4]

Mental health also plays a role in substance use. Studies suggest some youth who have schizophrenia, and have not been diagnosed, use substances to manage their illness.[5] Vulnerable individuals may also be people who have a genetic predisposition (a parent or a close family member who has struggled with a substance use disorder). For example, numerous family studies, adoption studies, and twin studies suggest genetics plays a role.[6] Many of these studies however do not allow us to separate the effects of genetic and environmental influences.[7] This means that substance use disorders from a genetic perspective should not be considered simply a biological phenomenon.

Despite significant advances in our understanding of the biological bases of substance use disorders; we know substance use disorders continue to represent a huge public health crisis,[8] and further research in this area must continue as we support individuals living with a substance use disorder. Every brain, and every person is different; we must look at biology as one potential factor in a substance use disorder.

READ

To further explore these concepts review Chapter 2: Biological Models of Substance Misuse, Pharmacokinetics, and Psychopharmacology Principles in Introduction to Substance Use Disorders by Patricia Stoddard Dare and Audrey Begun. CC BY-NC

3. Soyka M., Kranzler, H. R., Hesselbrock, V., Kasper, S., Mutschler, J., Möller H. J., & The WFSBP Task Force on Treatment Guidelines for Substance Use Disorders. (2017). Guidelines for biological treatment of substance use and related disorders, part 1: Alcoholism, first revision. *The World Journal of Biological Psychiatry, 18*(2), 86-119. https://books.google.ca/books?hl=en&lr=&id=sWtwAAAAQBAJ&oi=fnd&pg=PT8&dq=behavioural+theory+addiction&ots=Lv9CW4hdLO&sig=sEK–99BluIaVzBJsoGDadb9or8#v=onepage&q=behavioural%20theory%20addiction&f=false
4. Rutherford, H. J., Mayes, L. C., & Potenza, M. N. (2010). Neurobiology of adolescent substance use disorders: implications for prevention and treatment. *Child and Adolescent Psychiatric Clinics of North America*, *19*(3), 479–492. https://doi.org/10.1016/j.chc.2010.03.003
5. van Nimwegen, L., de Haan, L., van Beveren, N., van den Brink, W., & Linszen, D. (2005). Adolescence, schizophrenia and drug abuse: a window of vulnerability. *Acta Psychiatrica Scandinavica, 111*(s427), 35-42. https://doi.org/10.1111/j.1600-0447.2005.00543.x
6. Open Educational Resource. (n.d.). *Theories of addiction: Causes and maintenance of addiction.* Chapter 4. https://www.open.edu/openlearn/ocw/pluginfile.php/629967/mod_resource/content/1/addictionarticle1teeson.pdf
7. Ibid.
8. Potenza M. N. (2013). Biological contributions to addictions in adolescents and adults: Prevention, treatment, and policy implications. *The Journal of Adolescent Health, 52*(2), 22-32. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3935152/

6.4 PSYCHOLOGICAL THEORIES

Using psychology also helps us understand substance use disorders. There are a variety of psychological approaches that help us understand behaviours, treatment, and recovery. Psychological theory can look at behaviour. For example, helpers may look at how and why the behaviour is maintained; they may also engage in understanding the behaviours that are happening while a person is under the influence of a substance.[1] You may choose to review the work of Skinner, Pavlov and Watson.

OPTIONAL READING
Chapter on Pavlov, Watson, Skinner, and Behaviorism in General Psychology for Honors Students written by Kate Votaw /University of Missouri–St. Louis shared under a CC BY-NC-SA license

Learning theory is another example of a psychological theory. Learning theory suggests that a substance use disorder results from the learning we receive from the social environment, our experiences. For example, observing a peer or parent smoke or vape may influence whether a young person also begins smoking or vaping. Is the child or youth seeing a positive or a negative experience in the substance use? These observations "can instill positive expediencies for the effects of these substances and provide models that show how to obtain and use them".[2]

Food For Thought

- What is something you do when you are happy?
- Why do you do this?
- When you reflect on this activity, where do you think you learned this?
- How many activities do you engage in that you learned from others?

Classical conditioning and operant conditioning are two types of learning models. When we use classical conditioning in the field of substance use disorders, we examine the relationship between

1. Teesson, M., Degenhardt, L., & Hall, W. (2002). *Addictions*. (chapter 4) East Sussex:UK. Psychology Press.
2. Moos, R. H. (2007). Theory-based processes that promote the remission of substance use Disorders. *Clinical Psychology Review, 27*(5), 537-551, https://doi.org/10.1016/j.cpr.2006.12.006.

the substance use and its connection with the environment. For example, let us examine smoking tobacco.

6.4A ACTIVITIES

1. Brainstorm a list of reasons why people smoke
2. Brainstorm a list of reasons why people quit
3. If you were to use classical conditioning to understand how to support someone who was quitting, what might you consider based on your answers above?

Classical conditioning helps individuals understand their relationship with a substance and how they may crave a particular substance based on their environment. For example, someone who smokes tobacco may feel a pleasant feeling every time they visit a particular store, as that is the store where they buy cigarettes from, and often smoke as soon as they leave the store. There are numerous resources to help a person quit smoking based on classical conditioning. These resources help individuals identify "triggers" or activators, they look at factors that can make someone feel like they need to use a substance, because of their relationship to the environment. "Common triggers that bring-on cravings include drinking coffee or alcohol, relaxing after work or after a meal, talking on the phone, driving, feeling stressed or angry".[3] Using classical conditioning, you can examine activators and help an individual identify strategies to reduce the emotions associated with the activators. These activators or cravings will reduce over time, the more a person is able to engage with the environment without using the substance.

6.4B ACTIVITIES

1. Brainstorm a list of ideas you could suggest to someone who was activated by the common trigger cravings listed above by Health Canada.

Operant conditioning uses the concept of rewards and punishments. If a person uses a substance, there are biological changes that happen (refer to Chapter 3 and 4). For some it is a pleasant feeling, for others, it is unpleasant. Not every person who uses a substance will develop a disorder; for some the pleasant feeling is just that, a pleasant feeling. For others the pleasant feeling takes over, and the reward becomes the focus. This focus can then develop into a substance use disorder. The

3. Health Canada. (2021). *How to quit smoking,* (para. 6). https://www.canada.ca/en/health-canada/services/smoking-tobacco/quit-smoking/how.html#a4

Community Reinforcement Approach builds on operant conditioning; "the goal of CRA is to help people discover and adopt a pleasurable and healthy lifestyle that is more rewarding than a lifestyle filled with using alcohol or drugs".[4] Please read this primer on the Community Reinforcement Approach by the Canadian Centre on Substance Use and Addiction.[5]

This type of conditioning has also been seen in television programs like Intervention Canada, where family members stage an intervention with the person using substances and give the individual an "ultimatum." Operant conditioning can be highly effective; however, interventions which focus on punishment rarely lead to a life without substances. Confrontation is highly ineffective in decreasing the use of alcohol and other substance.[6]

Psychological theories of substance use are varied and may help you explore how to best serve the individuals you will be working with.

READ

For more information on psychological theories review Chapter 4: Psychological Models of Substance Misuse in Introduction to Substance Use Disorders by Patricia Stoddard Dare and Audrey Begun. CC BY-NC

4. Meyers, R. J., Roozen, H. G., & Smith, J. E. (2011). The community reinforcement approach: an update of the evidence. *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism*, *33*(4), 380–388. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3860533/
5. Canadian Centre on Substance Use and Addiction. (2017). *Community reinforcement approach*. https://www.ccsa.ca/sites/default/files/2019-04/CCSA-Community-Reinforcement-Approach-Summary-2017-en.pdf
6. Jhanjee, S. (2014). Evidence based psychosocial interventions in substance use. *Indian Journal of Psychological Medicine*, *36*(2), 112–118. https://doi.org/10.4103/0253-7176.130960

6.5 SOCIAL THEORIES

We live in a complex world with many factors that influence our behaviours. As discussed in psychological theories, we learn from many areas including individual, family, peer and community.[1] Substance use may be familial, a person may have watched a parent or caretaker use alcohol on special occasions or more frequently. Perhaps you had a parent who smoked tobacco, and this may have played a role in whether you smoke. These social connections that are critical for our development as babies, toddlers, youth and into adulthood play a role in what we do, how we act, and how we live.

6.5A ACTIVITIES

1. Brainstorm a list of things you do each day, from morning until night.
2. Scratch out everything you do in a group. What is left?
3. How much of your daily interactions are with a group?
4. How did you learn to do each activity you do daily?

Social connections are also important for our health. Think back to the beginning days of the COVID-19 pandemic and how many people were negatively impacted by the social gathering restrictions. Some people increased their substance use to cope with the isolation.[2] Some people used technology to connect with family, friends, and even with their workplace.

6.5B ACTIVITIES

1. Brainstorm a list of things you did to cope with the isolation from the pandemic.
2. Did you increase your substance use?
3. How important is social connection in your life?

1. Connell, C. M., Gilreath, T. D., Aklin, W. M., & Brex, R. A. (2010). Social-ecological influences on patterns of substance use among non-metropolitan high school students. *American Journal of Community Psychology*, *45*(1-2), 36–48. https://doi.org/10.1007/s10464-009-9289-x para. 5
2. Public Health Agency of Canada. (2021). *COVID-19: Focus on substance use and stigma.* https://www.canada.ca/en/public-health/news/2021/05/covid-19-focus-on-substance-use-and-stigma.html

4. Did technology help?

Social connection is an important factor in wellness and subsequently whether a person uses substances.[3]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=176#oembed-1

Social learning theory suggests behaviour is influenced by the interaction of personal, social, and environmental factors including intrapersonal factors, interpersonal factors, institutional or organizational factors, community factors, and public policy.[4] This is intersectionality. If you have been negatively impacted by one of these factors, are you susceptible to a substance use disorder? The research indicates yes; remembering it is one risk factor and does not mean it WILL lead to a substance use disorder. This theory is often used in counselling in supporting individuals with substance use disorders as it allows supporters to focus on individual, environmental, and societal factors.

Food For Thought

- Reflect on a happy memory from your childhood.
- Identify everyone who was involved.
- What were the factors that make this memory so wonderful?

The social factors that influence us are complex. Many of the treatment models use a social-ecological approach, identifying factors like trauma, adverse childhood experiences, mental health, racism, as well as self-efficacy.

FURTHER READING

3. Every Mind Matters. (2019). *Social connection.* [Video]. Youtube. https://www.youtube.com/watch?v=x1EYcVpQeeE
4. McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly, 15*(4), 351-77. https://doi.org/10.1177%2F109019818801500401

Chapter 5.0: Social Context and Physical Environment Models of Substance Misuse in Introduction to Substance Use Disorders by Patricia Stoddard Dare and Audrey Begun.

6.6 SUBSTANCE USE DISORDERS AS BIOPSYCHOSOCIAL PHENOMEMON

Venn diagram of risk factors for substance use problems. Credit: Brown-Rice, K., & Moro, R.

Reflect on the theories you have explored this far. As you have come to understand, to look at substance use disorders in a binary fashion, choosing one lens or another is not effective. Breaking down substance use and connecting it to biological factors, psychological factors, and social factors can help provide Social Service workers an opportunity to see a "whole" person and to provide wrap-around supports that can help a person meet their individual goals related to their substance use. You can further explore poverty, race, gender, and other examples of intersectionality that may play a role in a person's substance use as you are working with them, ensuring your work is culturally and gender sensitive.

It is important to note substance use disorders do not often have one-specific cause. You may use a combination of theories to help your clients explore why they use substances and why they continue to use substances, are increasing substance use, or choosing to change their substance use, remembering you are not diagnosing. Using theories may help you understand the complexity of substance use and why one theory is generally not enough.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=178#h5p-17

IMAGE CREDITS

Venn diagram of risk factors for substance use problems from: Brown-Rice, K., & Moro, R. (2018). Genetics and brain chemistry. In P. Lassiter, & J. Culbreth (Eds.), *Theory and practice of addiction counseling* (pp. 47-75). SAGE Publications, Inc.

6.7 TRAUMA

Trauma is a word that is used frequently these days. It describes conflict/war, it is shared in media, it describes some childhoods, it is discussed in the marginalization of vulnerable groups. You may have used trauma to describe difficult situations you have experienced. Is trauma the same thing as loss? Trauma is more complex.

A traumatic experience can be something that happens to us, for example an accident or a loss. A traumatic experience can cause trauma. Is trauma something that happens each time a difficult situation arises in your life? No. The Canadian Association of Mental Health[1] describes trauma as "the lasting emotional response that often results from living through a distressing event. Experiencing a traumatic event can harm a person's sense of safety, sense of self, and ability to regulate emotions and navigate relationships".[2] Trauma as an initial or latent experience can happen at any time at any place.

Food For Thought

- Reflect on a time (at least one year ago) that you experienced a difficult situation. Perhaps it was the loss of a pet, or the challenge of not being able to see your friends or family for an important celebration during a COVID lockdown.
- What were some of the emotions you felt?
- What strategies did you use to cope?
- How are you coping now?

We live in a world where difficult, sad, frustrating, upsetting, devastating acts occur in our lives. *Some* of these acts may be considered traumatic. Another voice on trauma, one of the world's most renowned experts, Dr. Gabor Mate[3] considers trauma as "the invisible force that shapes our lives. It shapes the way we live, the way we love and the way we make sense of the world. It is the root of our deepest wounds".[4]

1. The Canadian Association of Mental Health. (2021). *Trauma.* https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/trauma
2. Ibid, (para.1).
3. Mate, G. (2021). *The wisdom of trauma.* https://drgabormate.com/the-wisdom-of-trauma/
4. Ibid, para. 6.

LISTEN / PODCAST

Dr. Gabor Maté on Trauma, Addiction, and Healing a Mindspace Podcast.

In this episode of the Mindspace podcast, Dr. Joe speaks with Dr. Gabor Maté, retired physician, author, and world renowned educator. Dr. Maté has more than 20 years experience in family practice and palliative care. He has worked for more than a decade at the Portland Hotel in downtown East Side Vancouver with patients who suffer from mental illness and addiction.

Did this help you understand trauma? Holmes[5] suggests trauma must include "stigmatization, marginalization, or oppression because of gender, sex, race, class, sexual orientation, age, ethnicity, culture, spirituality, ability/disability".[6] This means that trauma is complex and must be understood as not necessarily having just one experience. Other researchers looking at trauma, mental health, and coping suggest "trauma has been found to contribute to a range of mental health conditions".[7] and for some, coping with trauma means using substances.[8] When trauma affects people's coping mechanisms they may not be able to appropriately respond to any stressors, much less recover.[9] Watch this video[10] on how substance use and trauma are related.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=180#oembed-1

5. Holmes, C. (2021). *Bridging the gap in women's substance use services: A trauma-informed, gender-responsive, and anti-oppressive approach.* http://repository.cityu.edu/bitstream/handle/20.500.11803/1465/ChristineHolmesCapstone.pdf?sequence=2&isAllowed=y\
6. Ibid, p. 24.
7. Cleary, M., West, S., Kornhaber, R., Visentin, D., Neil, A., Haik, J., & McLean, L. (2020). Moving the lenses of trauma — Trauma-informed care in the burns care setting. *Burns, 46*(6), 1365-1372. https://doi-org.libproxy.stfx.ca/10.1016/j.burns.2020.01.01
8. Saddichha, S., Werker, G., Schuetz, C., & Krausz, M. (2015). Stimulants and cannabis use among a marginalized population in British Columbia, Canada. *International Journal of Offender Therapy and Comparative Criminology, 59*(13), 1487-1498. https://doi.org/10.1177%2F0306624X14541661
9. Cleary, M., West, S., Kornhaber, R., Visentin, D., Neil, A., Haik, J., & McLean, L. (2020). Moving the lenses of trauma — Trauma-informed care in the burns care setting. *Burns, 46*(6), 1365-1372. https://doi-org.libproxy.stfx.ca/10.1016/j.burns.2020.01.01
10. Crash Course. (2014, Sept. 22). *Trauma and addiction: Crash course psychology #31.* [Video]. Youtube. https://www.youtube.com/watch?v=343ORgL3kIc

6.7A ACTIVITIES

1. Brainstorm a list of groups that have been heavily impacted by trauma.
2. What do you notice about these groups?
3. Brainstorm as many ways as you can think how trauma manifests physically and mentally.

There has been a concerted effort in the past twenty years to study trauma and identify the links between trauma and substance use to improve service provision. Trauma informed care recognizes the prevalence of trauma, how it manifests and impacts people and focuses on supporting the needs of an individual while minimizing the risk of re-traumatisation, and maximizing choice and empowerment (Cleary, 2020).[11] When trauma and a substance use disorder are connected, it is imperative that a trauma-informed approach is used. Listen to this short podcast by Dr. David Trealeven and Anjuli Sherin on embracing a trauma-informed approach using mindfulness.[12]

LISTEN / PODCAST

Resilience, Mindfulness, and Healing Trauma. The Trauma-Sensitive Mindfulness Podcast hosted by David Treleaven.

In this episode, David speaks with Anjuli Sherin, author of the book *Joyous Resilience: A Path to Individual Healing and Collective Thriving in an Inequitable World*.

6.7B ACTIVITIES

1. What are two ways you can introduce a trauma-informed lens in your work?
2. Where can you find evidence-based information on trauma and substance use

11. Cleary, M., West, S., Kornhaber, R., Visentin, D., Neil, A., Haik, J., & McLean, L. (2020). Moving the lenses of trauma — Trauma-informed care in the burns care setting. *Burns, 46*(6), 1365-1372. https://doi-org.libproxy.stfx.ca/10.1016/j.burns.2020.01.01
12. Trealeven, D. (2021). *Resilience, mindfulness, and healing trauma*. https://davidtreleaven.com/tsm-podcast-episode-22-anjuli-sherin/

Trauma is an important factor to be aware of. You may consider engaging in trauma-informed training to ensure you are working with your clients safely and appropriately.

6.8 SELF CARE

This module's self care continues to explore mindfulness. To practice mindfulness this week, please listen to the guided meditation with Tara Brach.[1] This activity takes approximately 20 minutes, please ensure you have the time and space to engage in this activity.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=182#oembed-1

1. Brach, T. (2019). *Tara Brach leads a guided meditation: The practice of RAIN.* [Video]. Youtube. https://www.youtube.com/watch?v=W8e_tAEM80k

Additional Resources

- Implementation of the community reinforcement approach (CRA) in a long-standing addictions outpatient clinic.
  By Gregory Purvis email and Duane MacInnis published in *Journal of Behaviour Analysis in Health, Sports, Fitness and Medicine*.
- The Brain and Adverse Childhood Experiences
  Transcript created by Canadian Centre on Substance Use and Addiction of *The Evidence* season 1, episode 5.
- Benevolent Childhood Experiences
  A report written by Narayan et. al. from the journal *Child Abuse & Neglect.*

Watch *Addiction help, rehab-Ontario alcohol and drug addiction centres*

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CHAPTER 7: SUBSTANCE USE LAWS IN CANADA

Learning Objectives

By the end of this chapter you should be able to:

1. Explore the history of substances and substance use policy in Canada
2. Explain the main arguments for and against decriminalization and legalization of substances
3. Recognize the effects of laws and policies on individuals, families, and communities

7.1 OVERVIEW

When you purchase a coffee, have you ever wondered why it is accessible to anyone, though we know caffeine has a biological impact on brain and body? Have you ever thought about why tobacco products, marijuana, alcohol, or even your prescription medicines are less accessible, and asked who made these decisions? This module will start with an exploration of substances and laws.

7.1A ACTIVITIES

1. Research laws on substances in Canada.
2. What laws make sense to you? Which do you think need work?
3. Who do you think the laws on substances affect?

There is little disagreement that there is an international "war on drugs;" and yet the war on drugs has resulted in the criminalization, stigmatization and increased health harms of people who use substances.[1] A growing number of people in the political world agree; "the global war on drugs has failed, with devastating consequences for individuals and societies around the world…fundamental reforms in national and global drug control policies are urgently needed".[2] While the United Nations General Assembly Special Session (UNGASS) and the United Nations Office on Drugs and Crime (UNODC) released a joint commitment in 2016 to address substance use, it still focused on reduction of access. There was, however, a recognition that substance use laws must shift to a more human rights and health promotion approach.[3]

Given this backdrop, the question of whether our current substance use policies in Canada make sense must be asked. Experts in this field in Canada, from Gabor Mate to Donald MacPherson suggest the best approach our society could take is to decriminalize all substances and expand prevention, treatment, and harm reduction approaches that support various theories of use, ridding policy of moral models.[4]

1. Henry, B. (2018). *Stopping the harm: Decriminalization of people who use drugs in BC.* https://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/reports-publications/special-reports/stopping-the-harm-report.pdf
2. Global Commission on Drug Policy. (2011). *War on drugs: Report of the Global Commission on Drug* Policy, (p. 3). https://www.globalcommissionondrugs.org/
3. United Nations. (2016). *General assembly special session on the world drug problem.* https://www.unodc.org/documents/postungass2016/outcome/V1603301-E.pdf
4. European Monitoring Centre for Drugs and Drug Addiction. (2015). *What is decriminalization of drugs?* [Video]. Youtube. https://www.youtube.com/watch?v=9NKhpujqOXc

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=190#oembed-1

Canada would not be the first country to decriminalize substances; "Czechia, the Netherlands, Portugal and Switzerland are among a handful of countries that have decriminalized drug use and possession for personal use and that have also invested in harm reduction programmes".[5] How has decriminalization impacted these countries?

THE NETHERLANDS*

The Netherlands decriminalized substances in 1976.[6] The strategy taken by the Netherlands was a four-pillar approach focusing on (i) preventing substance use and treating and rehabilitating people who use substances; (ii) reducing harm to users; (iii) diminishing public nuisance caused by people who use substances and; (iv) combatting the production and trafficking of drugs.[7] Under the Netherlands' policy, people who use substances are not normally arrested for possession (excluding cocaine and heroin), but they must receive treatment if they are arrested for another reason.[8] Traffickers are not arrested for selling small amounts of substances, but they may be arrested for selling them in large quantities.

The impacts of these changes resulted in marijuana, cocaine and heroin use dropping in the immediate years after it was decriminalized. For example, data from the European Monitoring Centre for Drugs and Drug Addiction[9] estimated approximately 1.4% of people participate in high-risk cannabis use (daily use). In Canada, 7.9% of Canadians aged 15 and older report high risk cannabis use.[10] In the Netherlands, there has been a decreasing trend in lifetime cannabis use among school-age children over the period 1999-2015.[11] Data from the 2017 Health Behaviour in School-aged Children (HBSC) study showed a decrease in lifetime prevalence of cannabis use among students aged 12-16 years from 16.5 % in 2003 to 9.2 % in 2017.[12] In Canada, however, over 19% of those ages 15-17 used cannabis and nearly 20.0% of Canadians between the ages of 15-64 reported having used cannabis

5. UNAIDS. (2020, March 3). *Decriminalization works, but too few countries are taking the bold* step, (para. 3). https://www.unaids.org/en/resources/presscentre/featurestories/2020/march/20200303_drugs
6. Netherlands Ministry of Foreign Affairs. (2008). *FAQ drugs: A guide to drug policy.* https://www.government.nl/topics/drugs
7. European Monitoring Centre for Drugs and Drug Addiction. (2019). *Netherlands country drug report.* https://www.emcdda.europa.eu/system/files/publications/11347/netherlands-cdr-2019.pdf
8. Netherlands Ministry of Foreign Affairs. (2008). *FAQ drugs: A guide to drug policy.* https://www.government.nl/topics/drugs
9. European Monitoring Centre for Drugs and Drug Addiction. (2019). *Netherlands country drug report.* https://www.emcdda.europa.eu/system/files/publications/11347/netherlands-cdr-2019.pdf
10. Government of Canada. (2021). *Opioid and stimulant-related harms in Canada.* https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/
11. European Monitoring Centre for Drugs and Drug Addiction. (2019). *Netherlands country drug report.* https://www.emcdda.europa.eu/system/files/publications/11347/netherlands-cdr-2019.pdf
12. Ibid, p. 8

in the past three months.[13] In the Netherlands, while there has been an increase in the number of people who use opioids as experienced throughout Europe and North America, "no increase has been described in the number of opioid-related deaths".[14] In 2017 in Canada according to the Canadian Tobacco, Alcohol and Drugs Survey, the prevalence of opioid use was 11.8%,[15] and the number of opioid related deaths increased by 2% from 2016-2020 with 24,626 apparent opioid toxicity deaths.[16] By offering a variety of supports to people who use substances, the Netherlands is saving lives.

PORTUGAL

In 2001, Portugal decriminalized small amounts of all substances. This means the possession of substances for personal use and usage itself are still legally prohibited, but violations are exclusively administrative violations rather than criminal violations.[17]

If someone is using substances, they are not charged with substance related offences; rather anyone convicted of drug possession is sent for treatment, but the person may refuse treatment without any penalty.[18] Trafficking substances, on the other hand, is still illegal and can be prosecuted.[19] The Portuguese Government invested in treatment and evidence-based prevention programs.[20] It recognized that treatment costs far less than imprisonment.[21]

In Portugal, the number of people struggling with substance use disorders who chose to access treatment increased, there are treatment facilities readily available and there have been reductions in problematic use, substance use related harms and overcrowding in correctional facilities.[22] In Canada, access to treatment is provided by various provincial governments but access can be difficult as wait

13. Rotterman, M. (2021). *Looking back from 2020, how cannabis use and related behaviours changed in Canada.* Statistics Canada Health Reports. https://www.doi.org/10.25318/82-003-x202100400001-eng
14. Kalkman, G. A., Kramers, C., van Dongen, R. T. van den Brink, W., & Schellekens, A. (2019). Trends in use and misuse of opioids in the Netherlands: a retrospective, multi-source database study. *The Lancet, 4*(10). 498-505. https://doi.org/10.1016/S2468-2667(19)30128-8
15. Canadian Centre for Substance Use and Addiction. (2020). *Prescription opioids.* https://www.ccsa.ca/sites/default/files/2020-07/CCSA-Canadian-Drug-Summary-Prescription-Opioids-2020-en.pdf
16. Government of Canada. (2021). *Opioid and stimulant-related harms in Canada.* https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/
17. Greenwald, G. (2010). *Drug decriminalization in Portugal: Lessons for creating fair and successful drug policies.* CATO Institute Whitepaper Series, 1-38. https://ssrn.com/abstract=1464837
18. Rego, X., Oliveria, M. J., Lameira, C., & Cruz, O. (2021). 20 years of Portuguese drug policy –developments, challenges and the quest for human rights. *Substance Abuse Treatment Prevention Policy, 16*(59). https://doi.org/10.1186/s13011-021-00394-7
19. Greenwald, G. (2010). *Drug decriminalization in Portugal: Lessons for creating fair and successful drug policies.* CATO Institute Whitepaper Series, 1-38. https://ssrn.com/abstract=1464837
20. Rego, X., Oliveria, M. J., Lameira, C., & Cruz, O. (2021). 20 years of Portuguese drug policy –developments, challenges and the quest for human rights. *Substance Abuse Treatment Prevention Policy, 16*(59). https://doi.org/10.1186/s13011-021-00394-7
21. Ibid.
22. Hughes, C. E., & Stevens, A. (2010). What can we learn from the Portuguese decriminalization of illicit drugs? *The British Journal of Criminology, 50*(6), 999–1022, https://doi.org/10.1093/bjc/azq038

times for treatment is lengthy. For example, in Nova Scotia wait times for treatment, depending on the region, can last between 19-146 days.[23]

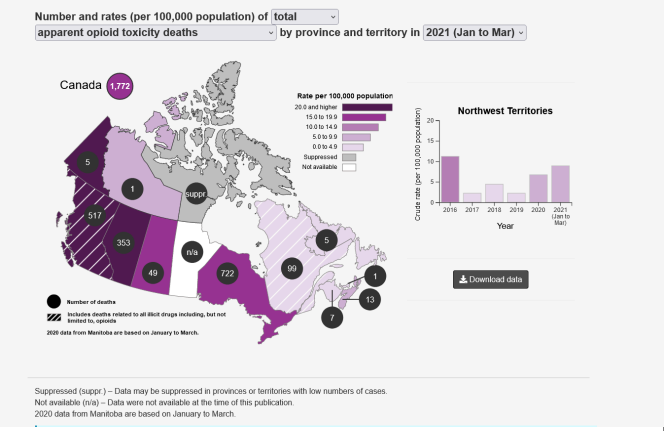
To learn more about Portugal's approach please watch the video below.[24]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=190#oembed-2

In Portugal, deaths related to substance use have reduced dramatically,[25] while in Canada, substance related deaths have increased, and almost 96% of opioid related overdose deaths were accidental.[26] Opioid deaths map of Canada.

Is Canada ready for decriminalization? Listen to Susan Boyd explore the current "war on drugs" in Canada.[27]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=190#oembed-3



Opioid deaths map of Canada. Credit: Public Health Agency of Canada. Long Description.

7.1B ACTIVITIES

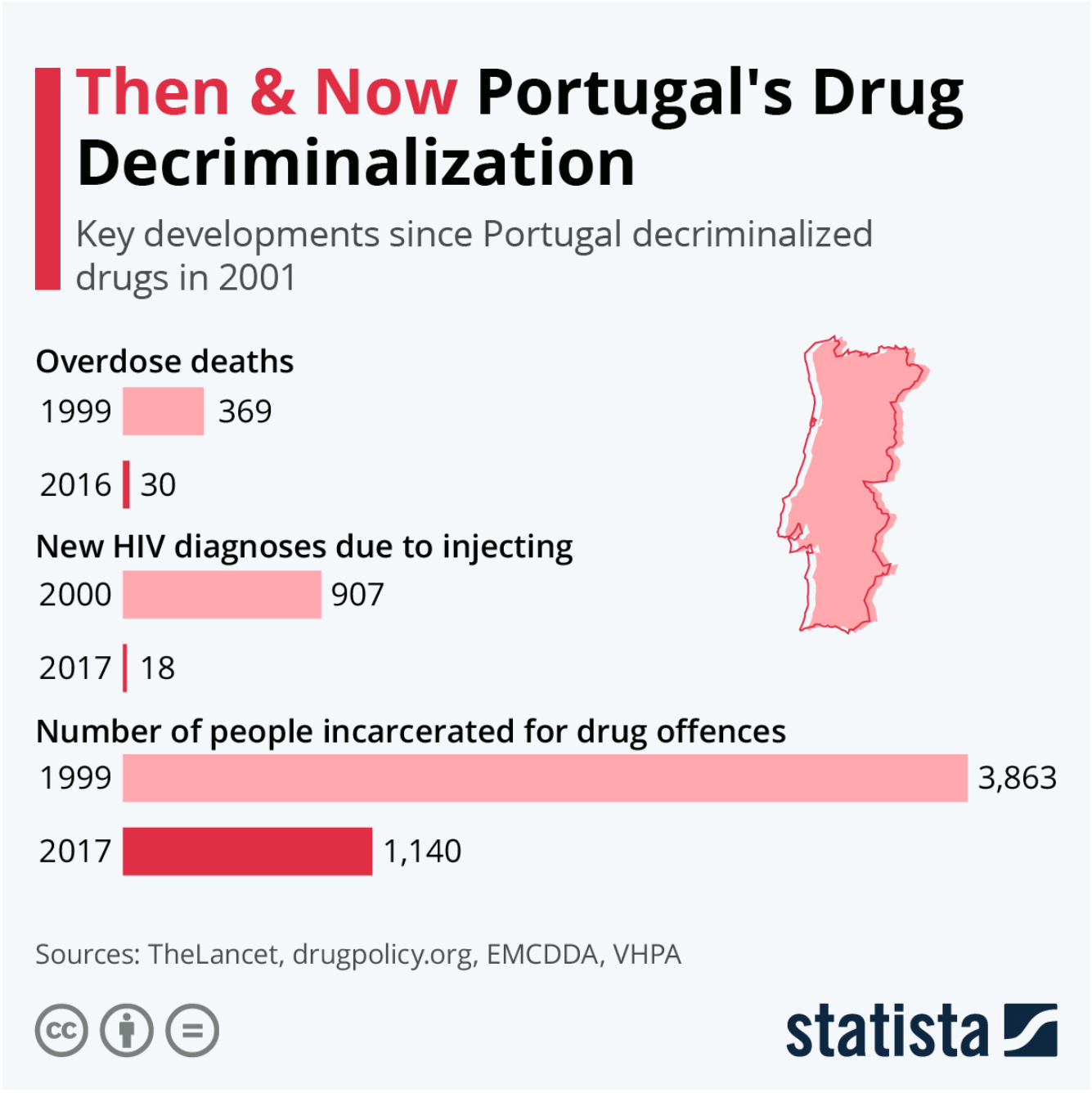
1. Brainstorm all the reasons people might disagree with decriminalization. Are these reasons evidence based?
2. Research one agency working on decriminalization in Canada.

23. Nova Scotia Mental Health and Addictions. (2021). *Wait time trends.* https://waittimes.novascotia.ca/procedure/mental-health-addictions-adult-services#waittimes-tier3
24. CBC News. (2017). *How Portugal successfully tackled its drug crisis*. https://www.youtube.com/watch?v=uQJ7n-JpcCk
25. Greenwald, G. (2010). *Drug decriminalization in Portugal: Lessons for creating fair and successful drug policies.* CATO Institute Whitepaper Series, 1-38. https://ssrn.com/abstract=1464837
26. Government of Canada. (2021). *Opioid and stimulant-related harms in Canada.* https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/
27. SFU Public Square. (2020, July 31). Susan Boyd: Colonial history and racial stereotypes are deeply entrenched in Canadian drug policy. [Video]. Youtube. https://www.youtube.com/watch?v=8cEu2HfKy84\

3. How can you promote an evidence-based public health approach to laws and substance use in Canada?
4. Compare and contrast Canada, the Netherlands and Portgual's approach to substance use laws and interventions.

The fears of many who saw Portugal as opening the door to an increase in substance use, increased infections, and harms have not happened. "Judging by every metric, decriminalization in Portugal has been a resounding success. It has enabled the Portuguese government to manage and control the drug problem far better than virtually every other Western country does".[28]

28. Hughes, C. E., & Stevens, A. (2010). What can we learn from the Portuguese decriminalization of illicit drugs? *The British Journal of Criminology, 50*(6), 999–1022, https://doi.org/10.1093/bjc/azq038



Key developments since Portugal decriminalized drugs in 2001. Credit: Statista. Long Description.

Based on the statistics presented in the Netherlands and Portugal, laws and policies are best when they are evidence based.

7.1C Activity

Health Canada has updated its low-risk drinking guidelines. Please compare and contrast the proposed 2022 guidelines with the 2011 Guidelines.

2023 News story regarding the new guidelines

https://www.ctvnews.ca/health/what-you-should-know-about-canada-s-new-alcohol-guidelines-1.6239499[29]

2022 Proposed Guidelines

https://ccsa.ca/sites/default/files/2022-08/CCSA-LRDG-Update-of-Canada%27s-LRDG-Final-report-for-public-consultation-en.pdf[30]

2011 Guidelines

- https://www.canada.ca/en/health-canada/services/substance-use/alcohol/low-risk-alcohol-drinking-guidelines.html [31]

CHAPTER CREDIT

* Sections on The Netherlands and Portugal condensed and adapted from Unit 5.1 / Lessons from Other Societies in Drugs, Health & Behavior by Jacqueline Schwab. Content rewritten, references for stats added, chapter updated with Canadian content.

IMAGE CREDITS

- Opioid deaths map of Canada from: Special Advisory Committee on the Epidemic of Opioid Overdoses. Opioid- and Stimulant-related Harms in Canada. Ottawa: Public Health Agency of Canada; March 2022. https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants
- Key developments since Portugal decriminalized drugs in 2001 from: Statista. (2020). T*hen & now; Portugal's drug decriminalization.* https://www.statista.com/chart/20616/key-developments-since-portugal-decriminalized-drugs/

29. What you should know about Canada's new alcohol guidelines
30. Canadian Centre on Substance Use and Addiction. (2022). Update of Canada's low-risk alcohol drinking guidelines: final report for public consultation. https://ccsa.ca/update-canadas-low-risk-alcohol-drinking-guidelines-final-report-public-consultation-report
31. Government of Canada. (2019). Low-risk alcohol drinking guidelines. https://www.canada.ca/en/health-canada/services/substance-use/alcohol/low-risk-alcohol-drinking-guidelines.html

7.2 SUBSTANCE USE LAWS IN CANADA

Take a moment and reflect on laws in Canada. Whether you realize it or not, laws in Canada impact citizens on a daily basis, from paying for groceries to driving on the right-hand side of the road, to education and health care.

7.2A ACTIVITIES

1. Research what a law is.
2. Research what a regulation is.
3. Research what a policy is.
4. How do laws, regulations, and policies impact you? Please provide an example.

There are also laws that control the access, use, and distribution of substances. The Controlled Drug and Substances Act (CDSA) is the law responsible for overseeing Schedule I-VIII substances, which include stimulants, opioids, depressants, benzodiazapines, and steroids as well as their derivatives.[1] The Director General's Office manages the *CDSA* and its Regulations and the Office of Controlled Substances develops legislation, regulations, policies and operations that support the control of illicit drugs and other substances.[2]

Who decides what substances belong to illicit or licit categories? Who decides when something is a crime and when people are sent to prison? Who creates and passes these laws? Employees of Health Canada, experts in the field, members of RCMP, and elected officials and their staff form committees to review substances and the laws associated with them. Canada is also a member of the UN Office of Drug and Crime (UNODC), which guides Canadian laws and policies.[3] To pass a law, the House of Commons (elected, lower Chamber), the Senate (appointed, upper Chamber), and the Monarch (Head of State, who is represented by the Governor General in Canada) work together.

Food For Thought

1. Government of Canada. (2021a). *Controlled substances.* https://www.canada.ca/en/health-canada/services/health-concerns/controlled-substances-precursor-chemicals/controlled-substances.html
2. Ibid.
3. Ibid.

- Have you ever thought about the people who create and pass laws? Do they represent all the diverse groups in Canada?
- Have you ever met your Member of Parliament who is responsible for addressing your concerns? Why or why not?
- Have you ever thought about running for office? Why or why not?

7.2B ACTIVITIES

1. Go to the Government of Canada website and review the Members of Parliament. Do any mention substance use/mental health?
2. Why do you think this is?

There are advocacy groups across Canada trying to make changes in the laws regarding substance use. From the larger groups like the Canadian Association of People who Use Drugs (CAPUD) and the Vancouver Area Network of Drug Users (VANDU) who have a long history in advocacy for supervised consumption sites and prescription opioid programs to smaller advocacy groups like the Halifax Substance Users Network (HalifaxSUN) and HaliFIX in Nova Scotia who have been working to promote overdose prevention through substance testing campaigns and sharing first-person stories of their substance use. There are grassroots efforts to move towards substance use laws and policies that reflect a harm reduction approach in Canada.

Some groups have had success in pilot projects. Please review the first opioid prescription models in Canada by clicking on the NAOMI and SALOME projects in Vancouver. While the evidence was clear that opioid prescription changed lives, these programs had a limited shelf-life.

Food For Thought

- Are there resources in your community that could support a safer approach to substance use?
- Is there a difference between urban and rural viewpoints when it comes to substance use? Can you find any examples of this?

7.2C ACTIVITIES

1. Research 3 Nova Scotia media stories on substance use. What approaches to substances/ substance use do these stories suggest?
2. Compare and contrast. What did you learn?
3. Create an infographic that focuses on one approach to substance use and addiction.

Today, Canada's policies that support a national harm reduction approach are piecemeal, and while there have been positive changes since 2015, including the legalization of cannabis and Health Canada approved supervised consumption sites,[4] one of the issues facing people who use substances continues to be a punitive legal system that criminalizes substance use.

4. Government of Canada. (2021b). *Supervised consumption sites: Status of applications.* https://www.canada.ca/en/health-canada/services/substance-use/supervised-consumption-sites/status-application.html#a3

7.3 THE "WAR ON DRUGS"

We will start this module with a short video from the Municipal Alcohol Project and the Nova Scotia Community College.[1]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=194#oembed-1

Videos like this suggest abstinence is best; however, abstinence does not work for everyone. Abstinence-based programs and policies are not evidence based, and yet are still being used to address substance use and substance use disorders. They are the remnants of the "war on drugs," which began in the Reagan era (1981-1989) of the United States and were generally seen as failed policy.[2] The term "war on drugs" began with Ronald Reagan, the President of the United States in 1984. His wife Nancy began a popular, yet ineffective campaign, "Just Say No". This campaign was based on abstinence and spawned other abstinence-based programs like DARE (Drug Abuse Resistance Education).[3]

Many people believe the war on drugs was an American phenomenon; however, Canada was a willing ally and created laws that targeted marginalized groups.[4] In the 1980's, Canadian Prime Minister Brian Mulroney invested in Canada's war on drugs based on the false belief that communities were being ravaged by drugs, though evidence on use suggested otherwise.[5] The war on drugs has been a world-wide phenomenon that resulted in the criminalization and incarceration of people who use substances; "historically, the principal response to illegal drug use has been enforcement and incarceration".[6]

The war on drugs was not successful, yet it continues to have impacts on Canada's laws, correctional facilities, RCMP and Police, healthcare, and economy. Data from Canada and elsewhere show "this approach fails to meaningfully reduce supply of – or demand for – drugs and results in

1. Key Studios. (2014, Feb. 26). *Municipal alcohol project PSA.* [Video]. Youtube. https://www.youtube.com/watch?v=HcH71oiOd48
2. Wood, E., Tyndall, M. W., Spittal, P. M., Li, K., Anis, A. H., Hogg, R. S., Montaner, J. S. G., O'Shaughnessy, M. V. O., & Schechter, M. T. (2003). Impact of supply-side policies for control of illicit drugs in the face of the AIDS and overdose epidemics: Investigation of a massive heroin seizure. *Canadian Medical Association Journal, 168*(2), 165-169. https://pubmed.ncbi.nlm.nih.gov/12538544/
3. Drug Policy Alliance. (2021). *A history of the drug war.* https://drugpolicy.org/issues/brief-history-drug-war
4. Ibid.
5. Maynard, R. (2017). *Policing black lives: State violence in Canada from slavery to the present*. Fernwood Publishing.
6. Wood, E., Tyndall, M. W., Spittal, P. M., Li, K., Anis, A. H., Hogg, R. S., Montaner, J. S. G., O'Shaughnessy, M. V. O., & Schechter, M. T. (2003). Impact of supply-side policies for control of illicit drugs in the face of the AIDS and overdose epidemics: Investigation of a massive heroin seizure. *Canadian Medical Association Journal, 168*(2), 165-169. https://pubmed.ncbi.nlm.nih.gov/12538544/

many unintended negative consequences"[7]; for example, "overdose is a leading cause of premature mortality in North America".[8] Consequences of the war on drugs also include incarceration and the myriad of challenges associated with having a criminal record. Yet Canada and other countries have continued to engage in a political war on drugs though according to Mallea,[9] "it has not reduced the drug trade, eliminated production, or decreased the number of users".[10] Gordon[11] suggests the criminalization of substances and people who use substances has not occurred in a vacuum; it has been a "state policy that intersects profoundly with the racialized class relations of Canadian capitalist society".[12]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=194#oembed-2

This racialized focus in the war on drugs has resulted in over-representation of incarceration for BIPOC (Black, Indigenous, People of Color) communities. "Racialization strengthens systemic racism and reinforces structural violence".[13] To understand how racialization has played a role in Canada's war on drugs one must simply look to the correctional system. For example, 80% of people who have been incarcerated have substance use disorders[14] and 54% of offenders were under the influence of alcohol and/or drugs at the time of the offence for which they were currently serving a sentence (Pernanen et al. 2002)[15] If we look at the correctional system we can see in 2016, Indigenous Canadians accounted for 24.4% of the federal prison population, though they make up just 4.3% of the general population.[16] In 2010–2011, Black Canadians accounted for 10% of the federal prison population although Black Canadians only comprised 2.5% of the overall population.[17] We are

7. Ibid.
8. Marshall, B. D., Milloy, M. J., Wood, E., Montaner, J. S., & Kerr, T. (2011). Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: A retrospective population-based study. *The Lancet, 377*(9775), 1429-37. https://pubmed.ncbi.nlm.nih.gov/21497898/
9. Mallea, P. (2014). *The war on drugs: A failed experiment.* Dundurn Press.
10. Ibid, p. 11
11. Gordon, T. (2006). Neoliberalism, racism, and the war on drugs in Canada. *Social Justice,* 33(1), 59-78. https://www.jstor.org/stable/29768352
12. Ibid.
13. Khenti, A. (2014) The Canadian war on drugs: Structural violence and unequal treatment of Black Canadians. *International Journal of Drug Policy, 25*, 190–195. https://health.gradstudies.yorku.ca/files/2016/09/The-Canadian-war-on-drugs-Structural-violence-and-unequal-treatment-of-Blacks.pdf
14. Motiuk, L., Boe, R., & Nafekh, M. (2003). *The safe return of offenders to the community.* Correctional Service Canada. https://www.csc-scc.gc.ca/research/sr2005-eng.shtml
15. Pernanen, K., Cousineau, M.M., Brochu, S. & Fu, S. Proportions of crimes associated with alcohol and other drugs in Canada. Report for the Canadian Centre on Substance Use. https://www.ccsa.ca/sites/default/files/2019-04/ccsa-009105-2002.pdf
16. Government of Canada. (2019). *Department of Justice – Spotlight on Gladue: Challenges, experiences, and possibilities in Canada's criminal justice system.* https://www.justice.gc.ca/eng/rp-pr/jr/gladue/p2.html
17. Wortley, S., & Owusu-Bempah, A. (2011). The usual suspects: Police stop and search practices in Canada. *Policing and*

incarcerating people for their substance use and this racialization of the war on drugs has resulted in blackness associated with criminality.[18]

The war on drugs has been a catastrophic failure that has directly impacted BIPOC communities and indirectly impacted all Canadians; "war always destroys lives, produces a maximum of collateral damage, denies basic human and civil rights, and has little to do with justice".[19] Many advocates who work in the field of substance use disorders believe it is time to end the war on drugs and focus efforts on the intersectionality of the systemic issues that perpetuate substance use disorders.[20]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=194#oembed-3

Food For Thought

- How do we determine if a law or policy does more harm than good?
- According to Husak[21], all substance use should be allowed in a free society. Agree or disagree? Why?
- If you think some substances should stay illicit, what are they? Why?
- How might access to all substances change how people use substances? Why? Can you relate this to a theory?

In deepening your understanding of the "war on drugs" please review the infographic below for the impact on Canadians.

Society, 21(4), 395–407. https://www.researchgate.net/publication/238046161_The_Usual_Suspects_Police_Stop_and_Search_Practices_in_Canada.

18. Khenti, A. (2014) The Canadian war on drugs: Structural violence and unequal treatment of Black Canadians. *International Journal of Drug Policy, 25*, 190–195. https://health.gradstudies.yorku.ca/files/2016/09/The-Canadian-war-on-drugs-Structural-violence-and-unequal-treatment-of-Blacks.pdf
19. Nusbaumer, M. R. (2009). Hooked: Drug war films in Britain, Canada and the United States. *Contemporary Justice Review, 12*(3), 367-369. https://doi.org/10.1080/10282580903105921
20. Canadian Drug Policy Coalition. (2020, Oct. 5). *Angel Gates: Insight from community on the devastating toll of Canada's drug policies.* [Video]. Youtube. https://www.youtube.com/watch?v=MiWcXFvWdIc
21. Husak, D. N. (2002). *Legalize this! The case for criminalizing drugs*. Verso Publishing.

Drug War in CANADA

If one were attempting to list the worst policy blunders of the past century, the War on Drugs would be somewhere between

Drug War in Canada infographic. Credit: Canadian Centre for Addictions. Long Description.

IMAGE CREDITS

- Drug War in Canada infographic from: Canadian Centre for Addictions. (2021). *Canada's shocking war on drugs: An infographic.* https://canadiancentreforaddictions.org/war-on-drugs/

7.4 ADVOCATING FOR CHANGE

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=196#h5p-20

The Canadian Drug Policy Coalition are advocating to revise Canada's Drug Safety Act and focus on a public health and human rights approach[1]. This means sharing information to help Canadians understand how/when/where policies were created and change policy based on evidence. Watch this short film by the Canadian Drug Policy Coalition[2] to help understand the impacts of the war on drugs and the community agencies that are working towards ending current substance use policies.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=196#oembed-1

Food For Thought

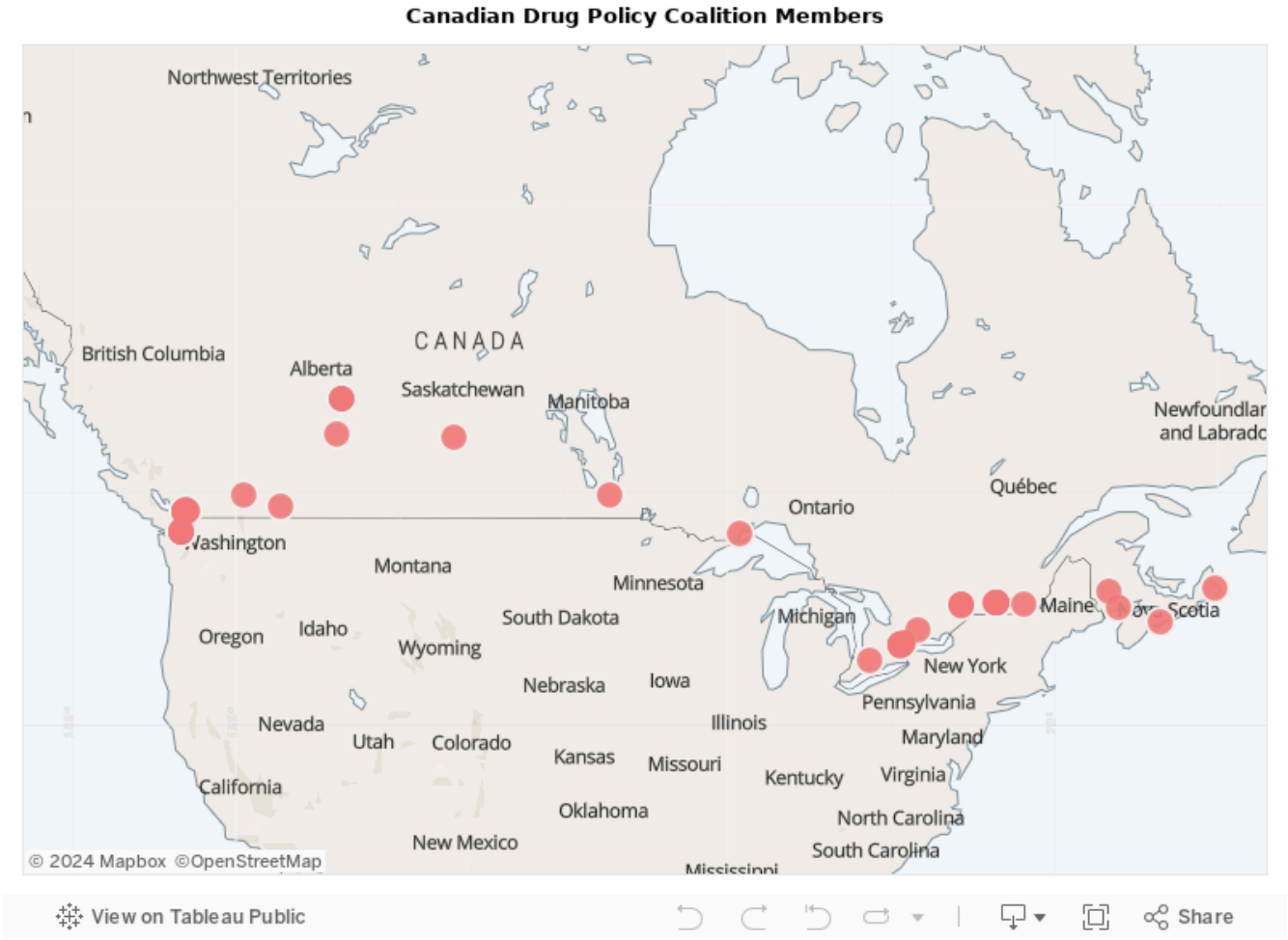
- Reflect on the concept of prohibition. How could quality control be changed if substance/use policies were built on a public health approach?

There are other advocacy groups across Canada that are speaking up to say the current approach is not working:

- Canadian Drug Policy Coalition members website

Interactive map from the Canadian Drug Policy Coalition

1. Canadian Drug Policy Coalition. (2021). Drug law reform. https://drugpolicy.ca/our-work/issues/reforme-des-politiques-sur-les-drogues/
2. Canadian Drug Policy Coalition. (2020, Oct. 5). *Getting to tomorrow: Ending the overdose crisis.* [Video]. Youtube. https://www.youtube.com/watch?v=1IEk1iYtJGw



7.4A Activities

Read Moms Stop the Harm"[3]

1. What was the most significant learning for you? Why?
2. Do you think websites or programs like this are effective? Why or why not?
3. How could someone get involved in supporting policy changes?

Food For Thought

- Do you see other changes in policy between the 1990's and today?

3. Moms Stop the Harm. (2021). *Moms Stop the Harm website.* https://www.momsstoptheharm.com/

- What is the biggest change you see?
- What areas do you think need further policies? Who would be responsible?

Does this mean that Canadian lawmakers and policy makers have not made changes in the last thirty years to reflect a more evidence-based approach? No, there have been significant changes to policies.

Review the following Timeline: How cannabis became legalized in Canada created by CBC Kids News for how marijuana became legalized in Canada.[4]

As we have explored in this chapter changes are happening. The current challenge, suggested by groups like the Canadian Drug Policy Coalition, is a dichotomy between the funding and support to harm reduction programs and making the legal changes that could make piecemeal harm reduction programs obsolete. What role does a Social Service worker play in this arena?

Please note that as of May, 2022, the British Columbia Government will be implementing a new law that sees small amounts of certain substances decriminalized. This is an exciting step and the rest of the country will be watching closely to see what the result may be. Read below about the exemption from Health Canada: B.C. receives exemption to decriminalize possession of some illegal drugs for personal use[5]

4. CBC Kids News. (2018, October18). *Timeline: How cannabis became legalized in Canada.*https://www.cbc.ca/kidsnews/post/timeline-how-marijuana-became-legalized-in-Canada
5. Government of Canada. (2022). *B.C. receieves exemption to decriminalize possession of some illegal drugs for personal use.* https://www.canada.ca/en/health-canada/news/2022/05/bc-receives-exemption-to-decriminalize-possession-of-some-illegal-drugs-for-personal-use.html

7.5 SELF CARE

This module's self care focuses on resilience. Please review the Self-Care Resilience Guide[1] by the Mental Health Commission of Canada, which will take you through a number of reflective activities. These activities are not meant to diagnose, simply to explore and develop a self-care plan to improve your mental health.

1. Mental Health Commission of Canada. (n.d.). *The working mind: COVID–19 Self–care & resilience guide.* https://theworkingmind.ca/sites/default/files/twm_self-care-resilience-guide.pdf

Additional Resources

- Drugs: What's race got to do with it?
  A 2017 article by CBC Radio.
- The Evidence Episode 04: Cannabis Communications Guide: (2020) by the Canadian Centre on Substance Abuse and Addiction (CCSA) via SoundCloud.
  Cannabis is now legal, but how do you talk to the young people in your life about using it? Chealsea De Moor and Kiran Somjee join the show to have an in-depth discussion on Talking Pot with Youth: A Cannabis Communication Guide for Youth Allies. This guide is not just more information to share. It is a practical tool about how you can have meaningful conversations with youth about cannabis — conversations that are safe, unbiased, informed and non-judgmental.
- Drug laws and interacting with police Santini, T and Stella, l'amie de Maimie. (2021). Read between the lines – Part I: Drug laws; Part Il: Interacting with police. http://librarypdf.catie.ca/ATI-30000s/30102.pdf

Mass Incarceration, Visualized. An interview with sociologist Bruce Western by The Atlantic via Youtube.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=200#oembed-1

What is the Drug War? With Jay-Z & Molly Crabapple by the Drug Policy Alliance via Youtube.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=200#oembed-2

CHAPTER 8-TREATMENT APPROACHES

Learning Objectives

By the end of this chapter you should be able to:

1. Describe how treatment in this field is offered on a spectrum
2. Describe both Western and Indigenous treatment options
3. Describe how the level/type of substance use is related to the types of services offered
4. Summarize trauma-informed practice

8.1 OVERVIEW

When a person decides to make a change in their substance use, there are many options for treatment in Canada. People make decisions about change for numerous reasons, each reason is personal to each individual. Having access to support for a substance use disorder is an important component in recovery. This chapter will explore various treatments in Canada. This information is in no way comprehensive and it is important to note that the numbering system (7.1/7.2) is not used as a way of rating or validating treatment. Both Western and Indigenous methods have an important role in treatment options. As Social Service practitioners please explore both fully.

There are many theories on substance use, as we explored in Chapter 6, and various Western treatment approaches are based on theoretical and scientific research. For individuals who are choosing to make changes in their substance use, there are many options. Some options that have been successful in treating substance use disorders include:

- withdrawal management
- counseling
- medication
- skills training
- evaluation and treatment for co-occurring mental health issues such as depression and anxiety
- peer support

For more information on publically funded treatment programs in Canada you may wish to review The Canadian Centre on Substance Use and Addiction, which has The National Treatment Indicators (NTI) project.[1] This is the only national, accessible source of information on publicly funded substance use treatment centres in Canada.

Stopping substance use is just one part of a long and complex recovery process. By the time people enter treatment, their substance use may have caused serious consequences in their lives, including to their health, their family lives, work, and more. Because substance use can affect so many aspects of a person's life, to be successful treatment should address the needs of the whole person. An individualized treatment program that allows a service provider to explore the intersectionality of a person's substance use is preferable. Treatments that meet the specific medical, mental, social, occupational, family, and legal needs of clients are an important aspect to success. For example, Kruk and Sandberg[2] suggest women "seeking recovery from "hard drugs" (alcohol, heroin, methadone, cocaine and crack cocaine, and metamphetamines) should have a menu of choices made available to

1. The Canadian Centre on Substance Use and Addiction. (2021). *The national treatment indicators project.* https://www.ccsa.ca/national-treatment-indicatorsPrograms

2. Kruk, E., & Sandberg, K. (2013). A home for body and soul: substance using women in recovery. *Harm reduction journal, 10,* 39. https://doi.org/10.1186/1477-7517-10-39

them in their recovery journey, including the options of both non-abstinence and abstinence-based recovery".[3]

There are many different treatment programs offered in Canada as every person with a substance use disorder is unique; the substance use is the common factor. Remember, success is individual; for some, success may be a reduction in use or safer usage rather than abstinence. When a person decides to access treatment for their substance use, there are questions that must be asked, to provide a safe and supportive individualized program

Food For Thought

- Why do you think people decide to change their substance use?
- Do you think there are good reasons/bad reasons to change substance use? Does the reason matter?
- If someone does not have a NS Health card can they access treatment in Nova Scotia?
- How does one obtain a healthcard?
- Can one obtain a healthcard if they travel from province to province or if they have no fixed address or identification?
- If they only have a healthcard but no private insurance what are their options?
- For individuals who are homeless or street entrenched, what are the barriers to accessing any type of treatment for a substance use disorder?

Along with individual factors to address in treatment, the geographical location in Canada may also be relevant. For example, living in a rural area or an urban area will impact choice for treatment. Social Service workers in rural areas must be aware of services that are available not only in their community, but in communities in proximity to ensure individuals can make well informed choices on treatment.

3. Ibid.

8.2 WESTERN IDEOLOGY APPROACHES TO TREATMENT

Below are some of the treatments available in Nova Scotia.

WITHDRAWAL MANAGEMENT (DETOXIFICATION)

All substances have an impact on the body and the brain. Some substances like alcohol have such a strong impact that they can cause death. Alcohol withdrawal requires medical intervention when a person wants to slow down or stop. This service is often referred to as detoxification (detox); however, today we use the term withdrawal management.

8.2A ACTIVITIES

1. Other words associated with substance use disorders have stigma. When you hear detoxification or detox, what do you think of?
2. Compare the terms detoxification and withdrawal management. Why do you think this has changed?
3. Is withdrawal management clear? Do you think language matters in this case? Why or why not?
4. Click on this link to an alcohol screening guideline in British Columbia.[1] Notice the language.
5. Would you change the term "problem drinking"? Why or why not?

You may think of a broader health perspective than substance use when you hear the word detoxification; in this context, detoxification or the preferred term, withdrawal management, is a medically assisted/managed program. Medications and devices can be used to manage withdrawal symptoms, prevent relapse, and treat co-occurring conditions. Withdrawal management is not in itself "treatment," but only the first step in the treatment process.

If a person has access to a provincial health card, in-patient withdrawal management may be referred by a health care provider, or it may also be self-referred. If people have the financial means, they may pay privately or access funds through an insurance provider for private in-patient withdrawal management at a private facility. Regardless of public or private, all individuals are screened to see if they meet the criteria for in-patient withdrawal management. It is important to note that screening is **not** diagnosing, screening is a tool to determine which service an individual

1. British Columbia Ministry of Health. (2013). *Problem drinking part 1: Screening and assessment*. https://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/problem_drinking.pdf

may benefit from, based on their substance use. Screening may highlight some of the areas of intersectionality of substance use. In-patient withdrawal management is provided by all provincial health care services. It is important to note that health providers utilize different screening tools to determine suitability for all treatment services, not least of which is in-patient withdrawal management.

8.2B ACTIVITIES

1. Look up screening tools for substance use. Do all tools include intersectionality?
2. Do the tools include the social determinant of health?
3. Are there areas that are missing?
4. How would you ensure inclusivity in a screening tool for substance use?

IN-PATIENT WITHDRAWAL MANAGEMENT

In Nova Scotia, in-patient withdrawal management is provided by the Nova Scotia Health.[2] This program "provides medical, supervised withdrawal management and support to individuals that require treatment and support to manage their withdrawal symptoms from substances such as alcohol and drugs".[3] While enrolled in in-patient withdrawal management individuals have access to a variety of treatment options including counselling, group therapy, referrals (health care and community) as well as food, medicine, and a place to stay between 5-21 days depending on the individual and the health care team.

Food For Thought

- Are in-patient withdrawal management available for every substance?
- Where are the in-patient withdrawal management centres in Nova Scotia?
- Is out of province for in-patient withdrawal management possible?
- Why do you think someone would leave their province to go to treatment?
- What are the challenges with accessing in-patient withdrawal management?
- IS in-patient withdrawal management available to everyone? If not, who might be excluded?
- What happens after in-patient withdrawal management?

2. Nova Scotia Health Authority. (n.d.c). *In-patient withdrawal management unit.* https://mha.nshealth.ca/en/services/inpatient-withdrawal-management-unit
3. Ibid, para. 1

- When you think about intersectionality of substance use, does in-patient withdrawal management address all the concerns? Are there barriers people could face in a hospital setting?
- Does in-patient withdrawal management impact all genders equally? What concerns might women bring with them to in-patient withdrawal management?
- Does in-patient withdrawal management support people of all races and cultures?
- When you think about the social determinants of health, does in-patient withdrawal management address all the concerns?
- How would you find out if there a wait list for Nova Scotia Health in-patient withdrawal management in Nova Scotia?

In-patient withdrawal management is an important component of treatment, particularly for substances that are life threatening to withdraw from, like alcohol. Substances like opioids are painful to withdraw from, in which case some individuals may be prescribed opiate replacement therapy, including methadone or buprenorphine, which we will discuss below.

In-patient treatment is also offered by privately owned facilities in Nova Scotia. Imagine spending days and nights in a beautiful facility with private doctors, registered nurses, and counsellors, all for the cost of approximately $600/day. Some insurance companies cover the costs of private treatment; however, for those without private health insurance, treatment facilities like these may be out of reach.

8.2C ACTIVITIES

1. Compare and contrast a program at a private facility with a provincially funded program.
2. Are privately owned facilities allowed in Canada?
3. Who licenses these facilities in Nova Scotia?
4. What does the presence of private clinics indicate about healthcare?

OUT-PATIENT WITHDRAWAL MANAGEMENT

Along with in-patient withdrawal management, people living in Nova Scotia who have a NS health card may have access to out-patient withdrawal management. This program "combines functions of an outpatient (day program) withdrawal management (detox) and structured treatment, providing the support of a team-based approach".[4] Based on current literature, not all provincial healthcare facilities in Nova Scotia offer this service. It is currently offered in the Western zone.[5] Outpatient treatment

4. Nova Scotia Health Authority. (n.d.d). *Outpatient withdrawal management* unit, (para. 1). https://mha.nshealth.ca/en/services/outpatient-withdrawal-management
5. Ibid, para. 4

has been provided in various parts of Nova Scotia; however there have been changes to these types of services, for example this story on Port Hawkesbury residents who wanted to reinstate-daytox-program-at-strait-richmond-hospital

Food For Thought

- Why do you think someone might choose out-patient withdrawal management instead of in-patient? Think about intersectionality and the social determinants of health.
- What is the difference between the two?

OUTPATIENT TREATMENT OPTIONS

For people who have completed a withdrawal management program, this is often not the end of their journey; it may be just the beginning. In Nova Scotia, options exist for people who are choosing to engage with a health care provider about their substance use. The Nova Scotia Health Authority provides a variety of outpatient treatment programs in various locations, from two-week full day programs to weekly appointments.[6] For those who are looking for a more intensive program, the Adult Addictions Day Treatment Program[7] may be a fit. For those looking for a less intensive program, Adult Community Mental Health and Addiction Services[8] may be a fit. This program "includes a team of mental health and addictions professionals who provide services on an outpatient basis"[9] for adults. The Nova Scotia Health Authority provides a separate service for youth under the age of 19 that is focused on age-appropriate interventions and treatments.

Food For Thought

- Any comments on the locations and process for referral? Reflect on the variety of services, both private and public. Is there anything missing?
- Are there wait times?
- Imagine if there was an unlimited budget, what would be a good investment? Why?

6. Nova Scotia Health Authority. (n.d.b). *Adult community mental health and addictions services.* https://mha.nshealth.ca/en/services/adult-community-mental-health-and-addictions-services
7. Nova Scotia Health Authority. (n.d.a). *Adult addictions day treatment program*. https://mha.nshealth.ca/en/services/adult-addictions-day-treatment-program
8. Nova Scotia Health Authority. (n.d.b). *Adult community mental health and addictions services.* https://mha.nshealth.ca/en/services/adult-community-mental-health-and-addictions-services
9. Nova Scotia Health Authority. (n.d.a). *Adult addictions day treatment program,* (para. 2). https://mha.nshealth.ca/en/services/adult-addictions-day-treatment-program

MEDICATION ASSISTED THERAPY

When we talk about using medication to treat substance use disorders, some people suggest it is not different, that in fact we are swapping one substance for another. This is a myth. For some individuals, using a different medication or a similar medication may reduce some of the harms of the substance. The Providence Health Clinic in Vancouver recognized that the continued use of heroin can be fatal if not treated[10] and began working with a small number of individuals who had an opiate use disorder. They developed SALOME a prescribed heroin project or heroin assisted treatment (HAT). SALOME developed out of the NAOMI project, North America's first HAT program, an initiative between the US and Canada in the 1990's.[11] These projects were breaking new ground as well as challenging ideologies about substance use. Both NAOMI and SALOME were challenged by previous federal Governments; however, the Providence Health Clinic challenged those decisions and became the only clinic in North America to "provide medical grade heroin and hydromorphone within a supervised clinical setting to chronic substance use patients"[12] [13]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=208#oembed-1

This approach to treating substance use allowed individuals, in partnership with their healthcare provider, to manage their substance use like a chronic illness. For some, this was a novel approach to treating substance use; for others, it was a clear example of how programs based on a public health approach can change/save lives.

Food For Thought

- Take a moment and think about how you feel about treating heroin use with medical-grade heroin.
- What does the evidence say about the safety and effectiveness of medication assisted treatment?
- What do you want to know more about?

10. McLellan A. T., Lewis D. C., O'Brien C. P., & Kleber H. D. (2000). Drug dependence, a chronic medical illness: Implications for treatment, insurance, and outcomes evaluation. *JAMA*, 284, 1689–1695. https://pubmed.ncbi.nlm.nih.gov/11015800/
11. Gartry, C. C., Oviedo-Joekes, E., Laliberté, N., & Schechter, M. H. (2009). NAOMI: The trials and tribulations of implementing a heroin assisted treatment study in North America. *Harm Reduction International Journal,* 6(2), 1-14. https://doi.org/10.1186/1477-7517-6-2
12. Providence Health Care. (2021). *About SALOME*. https://www.providencehealthcare.org/salome/about-us.html
13. Providence Health Vancouver. (2016). *SALOME patient experience video*. [Video]. Youtube. https://www.youtube.com/watch?v=8wY0LzYwRYs

- What are some of the challenges with programs like these?

METHADONE TREATMENT

Usage of opiates in Canada is being called a public health crisis by both advocates of substance use treatment programs [14] and the Government of Canada.[15] The Government has recognized this crisis has only worsened during the Covid-19 pandemic. Many urban and rural communities across Canada have reported a record number of opioid-related deaths, emergency calls and hospitalizations.[16] In Nova Scotia,[17] 33 individuals died from opiate overdose in 2021. While medications like medical grade heroin and hydromorphone can treat opiate use disorders, there are other medications that have also positively impacted the lives of people who use opiates. Methadone treatment is considered an opioid agonist treatment (OAT) and has been successful in treating people who use opiates. The slow acting methadone reduces withdrawal symptoms, and therefore is considered an opioid agonist.

LISTEN

Listen to the audio file about Darrell[18], a physician who was living with an opiate use disorder and how he used methadone in his treatment plan.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=208#audio-208-1

Methadone, as we discussed in Chapter 3, is a long-acting opiate, which is substituted for short acting opiates like fentanyl, Percocet, oxycodone, and heroin.[19] This type of OAT manages the withdrawal symptoms a person experiences as withdrawal from opiates can be physically painful. It can also be emotionally distressing, particularly if the substance is being used as a coping tool. Evidence from research around the globe has demonstrated that methadone is an effective treatment; it can help

14. Canadian Centre on Substance Use and Addiction. (2017). *Motivational interviewing (the essentials of series).* https://www.ccsa.ca/motivational-interviewing-essentials-series
15. Government of Canada. (2021b). *Opioids and the opioid crisis-get the facts*. https://www.canada.ca/en/health-canada/services/opioids/get-the-facts.html
16. Ibid.
17. Nova Scotia. (2021). *Opioid use and overdose strategy.* https://novascotia.ca/opioid/
18. Government of Canada. (2021). *Episode 2: Daryll [audiofile]*. Audio series on opioids: In plain sight. https://www.canada.ca/en/health-canada/services/opioids/awareness-resources/in-plain-sight.html
19. Centre for Addiction and Mental Health. (2021b). *Methadone.* https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/methadone

people with an opioid addiction in more ways than one.[20] Watch the following video about the impact methadone has made on mothers in Prince Edward Island.[21]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=208#oembed-2

Methadone, along with buprenorphine and suboxone, other opioid agonists, have changed lives. Opioid agonist does not work for every person; it may be offered as an option. The Pharmacy Association of Nova Scotia has a list of pharmacies providing methadone and suboxone.

8.2D ACTIVITIES

1. Review the following Centre for Addiction and Mental Health pamphlet on opiate agonist treatment.
2. How long can someone use methadone or bupenorphine?
3. Are there side effects of these medications?
4. What are the positive aspects of OAT? Negative aspects?
5. Create a poster for OAT. Include three main facts that you believe would help reduce the stigma of OAT.

DRUG COURT PROGRAM

Many people who use substances are incarcerated. According to the 2017 report on drug offences in Canada, over 95,000 people were charged with various drug offenses, many of which were related to cannabis.[22] One way in which Nova Scotia has decided to tackle the issue of incarceration for substance related criminal activity is the creation of a Court Monitored Drug Treatment Program or Drug Court Program (DCP). "In 2015, the Mental Health Court Program partnered with the Nova Scotia Health Authority's Opioid Treatment Program to introduce the Court Monitored Drug

20. Ibid.
21. Prince Edward Island Government. (2017, July 12). *Mothers and methadone*. [Video]. Youtube. https://www.youtube.com/watch?v=LjT8WvuaFUE&feature=emb_imp_woyt
22. Boyd, S. (2017). *Drug arrests in Canada, addendum.* https://drugpolicy.ca/wp-content/uploads/2018/09/Addendum.pdf

Treatment Program".[23] The DCP offers "alternative criminal sentences for people charged with crimes directly related to their opioid addiction".[24]

Drug Courts began in the United States, who were dealing with an unprecedented epidemic of substance use and incarceration as part of the war on drugs. To deal with the issues facing the criminal justice system, DCP's were born, which began to recognize the role of intersectionality in substance use and provided "expedited case processing, outpatient treatment, and support services (e.g., job placement and housing)".[25] Canada adopted its first drug court program in Toronto in 1998.[26] The programs have evolved, but the focus is still the reduction of the number of individuals incarcerated for substance related crimes and addressing the substance use disorder as the main issue, rather than the crime itself. DCP's focus on access to treatment for offenders who meet criteria and provide an alternative to incarceration by offering an opportunity to complete a substance use treatment program[27]. The data on DCP's is quite promising. Regardless of the recidivism rates of the individuals who participated in a DCP, "the majority of them had achieved some quality-of-life improvements (e.g., no longer homeless, received several months of addiction treatment and were connected to social supports within the community)".[28]

8.2E ACTIVITIES

1. Do DCP's promote quality of life? How?
2. How would you promote a DCP in your community?
3. Where can you find data on DCP's in Nova Scotia? In Canada?
4. Where are the DCP's located in Nova Scotia?
5. Where can you find data on DCP's in Nova Scotia? In Canada?

PEER SUPPORT

What is a friend? It may be someone you can count on or trust to talk about problems or a bad day. Peer support builds on the concept of friendship, but a peer supporter is different than a friend. "Peer support can be defined as the process of giving and receiving nonprofessional, nonclinical assistance from individuals with similar conditions or circumstances to achieve long-term recovery

23. The Courts of Nova Scotia. (n.d.). *Drug court program* (para. 1). https://www.courts.ns.ca/provincial_court/NSPC_MHC_drug_treatment_program.htm
24. Ibid.
25. Lurigo, A. J. (2008). The first 20 years of drug treatment courts: A brief description of their history and impact. *Probation Journal, 72*(1), 13-17. https://www.uscourts.gov/sites/default/files/72_1_2_0.pdf
26. Government of Canada. (2021a). *Drug treatment court program funding program.* https://www.justice.gc.ca/eng/fund-fina/gov-gouv/dtc-ttt.html
27. Ibid.
28. Ibid, para. 18

from psychiatric, alcohol, and/or other drug-related problems".[29] Peer support is a multi-faceted system within the field of substance use with varying opinions and efficacy. Peer support plays a role at all stages of substance use. It can happen with individuals starting their substance use and can move through all the way to recovery; there is significant value in peer support among individuals who use substances.[303132]

Informal peer support may take place in a situation where someone who uses substances is increasing their use and injecting for the first time. They may be guided by someone who knows how to inject properly and safely, offering clean supplies and ensuring the person tests their substance and does not use too much, putting them at risk of overdose. This is called informal peer support, peer helping or natural helping. Peer helpers try to dissuade people from starting to inject, act as first responders for overdoses, test drug potency, administer first aid, share prescription drugs such as antibiotics, offer temporary housing, counsel on emotional/psychological issues, and support those who are striving to reduce their drug consumption.[33]

In the world of harm reduction, knowing what a substance is and where it came from can be preferable to substances that are purchased on the street and may not be as reliable. Peer helpers can also have a role with community agencies and within the larger context of treatment; Dechman further suggests that this type of informal peer support "has not been separated out as a formalized intervention component and rigorously empirically tested, making it difficult to determine its effects",[34] though anecdotally many individuals who live with a substance use disorder could identify peer helpers and a positive role they have played.

VANDU sign in a window by Eternalsleeper. CC BY

29. Tracy, K., & Wallace, S. P. (2016). Benefits of peer support groups in the treatment of addiction. *Substance Abuse and Rehabilitation, 7,* 143–154. https://doi.org/10.2147/SAR.S81535
30. Ibid.
31. Boisvert, R. A., Martin, L. M., Grosek, M., & Claire, A. J. (2008). Effectiveness of a peer-support community in addiction recovery: participation as intervention. *Occupational Therapy International, 15*(4), 205-220. https://doi.org/10.1002/oti.257
32. Kelly, J. F., Fallah-Sohy, N., Cristello, J. & Bergman, B. (2017). Coping with the enduring unpredictability of opioid addiction: An investigation of a novel family-focused peer-support organization. *Journal of Substance Abuse Treatment, 77,* 193-200. https://doi.org/10.1016/j.jsat.2017.02.010
33. Dechman, M. K. (2015, May). Peer helpers' struggles to care for "others" who inject drugs. *International Journal of Drug Policy, 26*(5), 492-500. https://doi.org/10.1016/j.drugpo.2014.12.010
34. Ibid.

In Vancouver, the Vancouver Area Network of Drug Users (VANDU) emerged in 1997, the first drug users union in Canada. This group secured a permanent site in 1997 and began offering support, education, and advocacy for group members. They advocated for safe injection supplies and saw the creation of Insite, Canada's first safe injection site in 2003. They have provided informal peer support to individuals for over 24 years and continue to do so today.[35]

Formal peer support may be provided through organizations like 12-step programs including Alcoholics Anonymous and Narcotics Anonymous. While the research on AA and NA has been controversial, "research on the effectiveness of Alcoholics Anonymous (AA) is controversial and is subject to widely divergent interpretations",[36] for some people AA has played an important role in their reduction or elimination of substance use. Check out the Nova Scotia Chapters of AA and NA.

In Nova Scotia formal peer support can also be provided by Nova Scotia health through Mental Health Innovations, an evidence-based program offering support for transitioning from an in-patient to an outpatient setting.[37] This would be appropriate for someone living with a concurrent disorder, mental health, and substance use. Other formal peer support programs are offered through community-based agencies, for example Mainline Needle Exchange. Learn more about Mainline here. https://mainlineneedleexchange.ca/[38]

8.2F ACTIVITIES

1. What is the value in peer support? Why do community agencies value peer support?
2. What does the research say about peer support?
3. Is there evidence the health system values peer support? Provide two examples.
4. Are there other applications for peer support?
5. Find two peer support agencies in Nova Scotia. Who would you refer?
6. What training is involved in providing peer support as a service provider?

As noted above, this is not a comprehensive list of treatment options in Nova Scotia; however, this should provide an opportunity to expand knowledge on Western-ideology treatment for substance use disorders. It is also important to recognize gender as part of treatment models, as it is "now recognized that women have different addiction recovery needs than men, and that recovery processes for women should be gender- or women-sensitive to address their unique needs".[39] Please

35. Vancouver Area Network of Drug Users. (2016). *Homepage.* https://vandureplace.wordpress.com/
36. Kaskutas, L. A. (2009). Alcoholics anonymous effectiveness: Faith meets science. *Journal of Addictive Diseases, 28*(2), 145–157. https://doi.org/10.1080/10550880902772464
37. Mental Health Innovations (n.d.). *Peer support Nova Scotia: Mental health rehumanized.* https://www.supportyourpeople.com/peer-support-nova-scotia
38. Mainline Needle Exchange. (2021). *Supporting people.* https://mainlineneedleexchange.ca/
39. Kruk, E., & Sandberg, K. (2013). A home for body and soul: substance using women in recovery. *Harm reduction journal, 10,* 39. https://doi.org/10.1186/1477-7517-10-39

review the principles of effective treatment below and remember that it is the choice of the individual what type of treatment they would like to try. Whether they are not successful once or fifteen times, clients are encouraged to "never quit quitting"!

PRINCIPLES OF EFFECTIVE TREATMENT[40]

The following key principles should form the basis of any effective treatment program:

- Substance use disorders are complex.
- No single treatment is right for everyone.
- People need to have quick access to treatment.
- Effective treatment addresses all of the individuals needs, not just their substance use.
- Staying in treatment long enough is critical.
- Counselling and other behavioural therapies are the most commonly used forms of treatment.
- Medications can be an important part of treatment, especially when combined with behavioural therapies.
- Treatment plans must be reviewed often and modified to fit the individuals changing needs.
- Treatment should address other possible mental health disorders.
- Treatment should address the social determinants of health.
- Medically assisted withdrawal is only the first stage of treatment.
- Substance use during treatment must be monitored continuously, to prevent overdose.
- Treatment programs should encourage individuals to test for HIV, hepatitis B and C, tuberculosis, and other blood borne illnesses as well as sexually transmitted infections if they engage in risky behaviours. This way individuals will have a more complete picture of their health.
- Treatment programs should teach individuals about steps they can take to reduce their risk of these illnesses (harm reduction).

Review your learning here.

An interactive H5P element has been excluded from this version of the text. You can view it online

40. National Institute on Drug Abuse. (2019). *Principles of effective treatment. In Treatment Approaches for Drug Addiction DrugFacts.* https://nida.nih.gov/publications/drugfacts/treatment-approaches-drug-addiction

here:
https://pressbooks.nscc.ca/substanceuse/?p=208#h5p-21

8.3 INDIGENOUS APPROACHES

I would like to acknowledge the individuals and organizations that shared their knowledge to help us learn about the history of Indigenous people in Canada. Please bring openness and respect to this learning.

This section of Chapter 8 will focus on healing that has happened and is happening in Indigenous communities in the context of substance use. Here is what we know: the Canadian Government has systemically and continuously tried to eradicate Indigenous groups across North America, devalued their stories and cultural practices.[1] The Canadian Government, under the Indian Act, forced generations of trauma upon individuals and communities; we must acknowledge and understand this as "to understand the Aboriginal perspective there needs to be recognition of the effects of colonization".[2]

Indigenous people are strong and resilient.[3] According to McIvor et al.,[4] Aboriginal communities have asserted "that their language and culture is at the heart of what makes them unique and what has kept them alive in the face of more than 150 years of colonial rule".[5] By understanding the ways Indigenous communities have responded to colonization and ongoing health concerns in this context, substance use may help non-Indigenous practitioners understand Indigenous practices. Of key importance is the understanding that "health" goes beyond the western ideal of physical and mental health; Indigenous health is "understood as one of a harmonious relationship within the whole person, including mind, body, emotion, and spirit".[6] By knowing and respecting this worldview, Social Service practitioners may begin to explore the ways they can learn from Indigenous communities. Please watch the video[7] below to further your understanding.

1. Smith, M. (2021). Things transformed: Inalienability, Indigenous storytelling, and the quest to recover from addiction. *Alcoholism Treatment Quarterly, 39*(2), 160-174. https://doi-org.libproxy.stfx.ca/10.1080/07347324.2020.1776183
2. MacKenzie, B., & Morrissette, V. (2002). Social work practice with Canadians of Aboriginal background: Guidelines for respectful social work. In J. R. Graham & A. Al-Krenawi (Eds.), *Multicultural social work in Canada: Working with diverse ethno-racial communities* (pp. 251-279). Oxford University Press.
3. Kirmayer, L. J., Dandeneau, S., Marshall, E. Kahentonni Phillips, M., & Williamson, K. J. (2011). Rethinking resilience from Indigenous perspectives. *The Canadian Journal of Psychiatry, 56*(4), 84–91. https://journals.sagepub.com/doi/pdf/10.1177/070674371105600203
4. McIvor, O., Napoleon, A., & Dickie, K. (2009). Language and culture as protective factors for at-risk communities. *Journal of Aboriginal Health, 5,* 6-25. https://doi.org/10.18357\/ijih51200912327
5. Ibid, p. 6
6. Rowan, M., Poole, N., Shea, B., Gone, J. P., Mykota, D., Farag, M., Hopkins, C., Hall, L., Mushquash, C., & Dell, C. (2014). Cultural interventions to treat addictions in Indigenous populations: Findings from a scoping study. *Substance Abuse Treatment, Prevention and Policy, 9*, 34. https://doi.org/10.1186/1747-597X-9-34
7. Two Docs. (2019, April 2). *What non Indigenous Canadians need to know.* [Video]. Youtube. https://www.youtube.com/watch?v=b1E-3Hb1-WA

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=214#oembed-4

Indigenous Canadians who use substances have some of the highest rates of substance use disorders in Canada because of inter-generational trauma and colonization.[8] Substance use is not unique to Indigenous groups and many individuals and communities are addressing their substance use using culture as intervention and treatment.

> Most Indigenous scholars proposed that the wellness of an Aboriginal community can only be adequately measured from within an Indigenous knowledge framework that is holistic, inclusive, and respectful of the balance between the spiritual, emotional, physical, and social realms of life.[9]

Some groups may solely use culture and traditional methods, some may use Western treatment and sometimes individuals and groups use a blending of the two. This blending could be seen as utilizing a two-eyed seeing approach, a concept developed by Elder Albert Marshall which he suggested one uses the strengths of Indigenous knowledge and the strengths of Western knowledge so one may come to see the world more comprehensively and for the benefit of all.[10] Evidence is clear: culture is a foundation of Indigenous health, from prevention initiatives to healing from substance use and trauma.[11]

In Nova Scotia, there are some services provided to Indigenous people in Indigenous communities that use a two-eyed seeing approach. For example, Eagle Nest Recovery House in Sipekne'katik First Nation, Nova Scotia provides "best practices and community based culturally relevant programs which are delivered by certified addictions counsellors".[12]

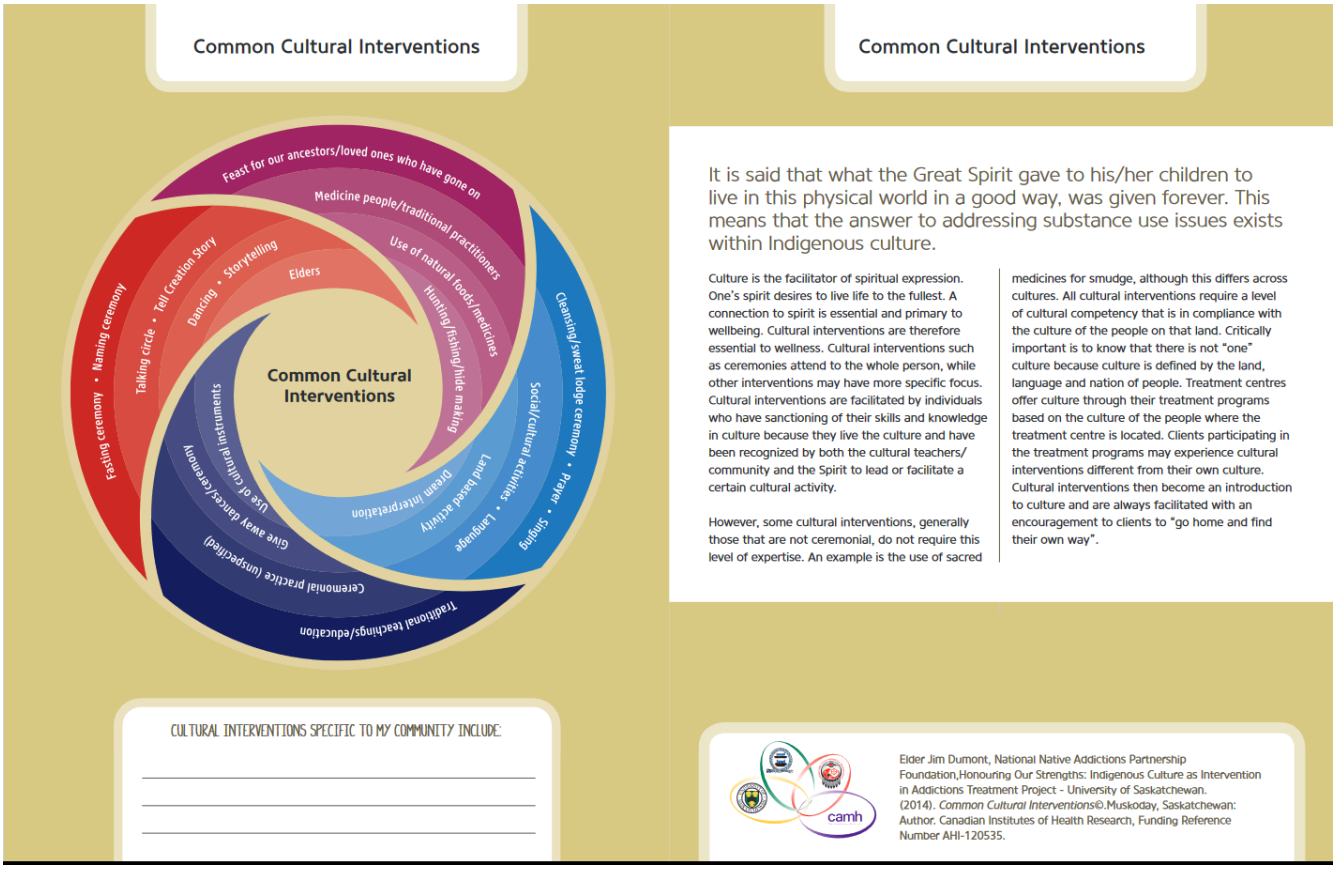
8.3A ACTIVITIES

1. Research two-eyed seeing

8. Niccols, A., Dell, C. A., & Clarke, S. (2010). Treatment issues for Aboriginal mothers with substance use problems and their children. *International Journal of Mental Health and Addiction*, *8*(2), 320–335. https://doi.org/10.1007/s11469-009-9255-8
9. Marsh, T. N., Coholic, D., Cote-Meek, S., & Najavits, L. (2015). Blending Aboriginal and Western healing methods to treat intergenerational trauma with substance use disorder in Aboriginal peoples who live in Northeastern Ontario, Canada. *Harm Reduction Journal, 12*(14). https://doi.org/10.1186/s12954-015-0046-1
10. Institute for Integrative Science and Health. (n.d.) *Guiding principles (Two-eyed seeing).* http://www.integrativescience.ca/Principles/TwoEyedSeeing/
11. Chong, J., Fortier, Y., & Morris, T. L. (2009). Cultural practices and spiritual development for women in a Native American alcohol and drug treatment program. *Journal of Ethnicity in Substance Abuse*, *8*(3), 261–282. https://doi-org.libproxy.stfx.ca/10.1080/15332640903110450
12. Native Alcohol and Drug Abuse Counselling Association of Nova Scotia. (2021). *Eagle Nest Recovery,* (para.1). http://www.nadaca.ca/in-patient-treatment-centres/eagles-nest/

2. How can two-eyed seeing help you as a Social Service worker?
3. Can two-eyed seeing be used beyond an Indigenous lens? How?
4. How can you ensure cultural respect/responsiveness when learning about Indigenous treatments?

It is important to reiterate that each Indigenous group in Canada is unique, and not all interventions would be appropriate. The culture-based intervention and healing may include any or all of spirit, ceremonies, language, values and beliefs, stories and songs, land-based activities, food, relations, nature, and history, among others. Below you will find some traditional healing methods; it is important to note this is by no means a comprehensive list of all Indigenous treatments, as there are hundreds of unique Indigenous communities across Canada. This should, however, provide you with an opportunity to learn more about Indigenous communities in both Nova Scotia and in Canada and build your two-eyed seeing practice. It is my sincere hope that others will contribute to the gaps in this section, so that we all may learn from each other. We will start with a graphic on common cultural interventions. Please review. Which interventions would you like to know more about?



Common Cultural Interventions. Credit: Canadian Institute of Health Research. Long Description.

What is a medicine wheel? McCormick[13] provides the following overview of the medicine wheel:

The Aboriginal medicine wheel is perhaps the best representation of an Aboriginal world-view related to healing. The medicine wheel describes the separate dimensions of the self– mental, physical, emotional, and spiritual – as equal and as parts of a larger whole. The medicine wheel represents the balance that exists between all things. Traditional Aboriginal healing incorporates the physical, social, psychological, and spiritual being.[14][15]

The medicine wheel has many iterations and is used differently by different practitioners as noted by Jeff Ward in the video below.[16] It is important to note that the teachings of the medicine wheel can be used as part of a two-eyed seeing approach to health.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=214#oembed-1

Food For Thought

- How can you learn more about medicine wheels?
- Where can you go for culturally appropriate information?
- How can you incorporate the medicine wheel into your life? Your practice?

What is an Elder? The term Elder "refers to someone who has attained a high degree of understanding of First Nation, Métis, or Inuit history, traditional teachings, ceremonies, and healing practices"[17] and is not defined by their age. Elders do not belong to just one family, they are part of the community, and respect should be given to Elders from all, both Indigenous and non-Indigenous peoples. Elders have a revered place among Indigenous communities in Canada. "Elders were the carriers of knowledge of both physical and spiritual reality and that they have been educated through the oral tradition".[18]

13. McCormick, R. (2009). Aboriginal approaches to counselling. In L. Kirmayer & G. Valaskakis (Eds.), *Healing traditions: The mental health of aboriginal peoples in Canada* (pp. 337–354). UBC Press.
14. Kirmayer, L. J., Dandeneau, S., Marshall, E. Kahentonni Phillips, M., & Williamson, K. J. (2011). Rethinking resilience from Indigenous perspectives. *The Canadian Journal of Psychiatry, 56*(4), 84–91. https://journals.sagepub.com/doi/pdf/10.1177/070674371105600203
15. McCormick, R. (2009). Aboriginal approaches to counselling. In L. Kirmayer & G. Valaskakis (Eds.), *Healing traditions: The mental health of aboriginal peoples in Canada* (pp. 337–354). UBC Press.
16. The Preservation Project. (2019, July 15). *What is the Medicine Wheel? Teachings by Jeff Ward.* [Video]. Youtube. https://www.youtube.com/watch?v=bSw0s8rcuSg
17. University of Toronto. (2019, Jan. 4). *Elders* (para. 1). https://www.oise.utoronto.ca/deepeningknowledge/Teacher_Resources/Curriculum_Resources_(by_subjects)/Social_Sciences_and_Humanities/Elders.html
18. Marsh, T. N., Coholic, D., Cote-Meek, S., & Najavits, L. (2015). Blending Aboriginal and Western healing methods to treat intergenerational trauma with substance use disorder in Aboriginal peoples who live in Northeastern Ontario, Canada. *Harm Reduction Journal, 12*(14). https://doi.org/10.1186/s12954-015-0046-1

The role of Elders in Indigenous communities cannot be stressed enough. They are the keepers of knowledge and are honoured and respected.

Watch the video below to deepen your understanding of Elders.[19]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=214#oembed-2

Food For Thought

- What did you learn about Elders?
- What would you like to know more about?

Nature is a powerful force and how we engage with nature depends on many factors, where we live, access to wilderness, finances, ability, safety and more. One of the social determinants of health is environment; consequently, where we live plays a role in our health. The earth takes care of us, it is where we build our homes, grow/hunt/fish our food, drink our water, and we live, work, and play on the land.

Food For Thought

- Have you ever taken a walk in a forest? A beach? Your neighbourhood?
- What did it feel like? Were you present in this moment?

Taking time to honour the earth is important, and Indigenous communities have a deep sacred relationship with the land, with the earth. The land plays a critical role in substance use treatment for Indigenous people. Carrier Sekani Family Services "offers a land-based healing program that uses culture and the natural environment to encourage its participants to return to their First Nations' culture to assist in combating addiction".[20] Utilizing the land allows a path to healing for communities who have been removed from the land and traditional teaching due to colonization. This type of programming includes both traditional teachings as well as Western interventions, utilizing the

19. CBC News. (2021, June, 21). *The Elders: Getting to know some of the most honoured members of First Nation communities.* [Video]. Youtube. https://www.youtube.com/watch?v=zhVnWwzzeRE
20. Carrier Sekani Family Services. (2021). *Addictions recovery program,* (para. 5). https://www.csfs.org/services/addictions-recovery-program

concept of two-eyed seeing which honors the best of Indigenous and non-Indigenous treatment philosophies and interventions.

READ

The Carrier Sekani Family Services Addictions Recovery Program wepage for an example of a First Nations approach to addiction recovery.

Chief Bob preparing to smudge. Credit: 2017 Anishinabe Naming Ceremony at Springwater Park, ON by antefixus21 CC BY-NC-ND 2.0

What is smudging? The smoke from burning sweet grass, cedar, or sage, is brushed toward one's body to cleanse the spirit. The smudging is usually done before a person involves themselves in a traditional ceremony.[21]

Watch*The Seven Sacred Teachings with Dr. Lottie Johnson* via Vimeo.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=214#oembed-3

LISTEN

Did you know that NSCC has smudging rooms on all of the campuses? NSCC establishes smudging rooms at all campuses via CBC NS.

Food For Thought

Watch the CBC news video: NSCC establishes smudging rooms at all campuses

- Did you know that NSCC has smudging rooms on all of the campuses?
- Have you ever seen smudging?

21. Cape Breton University. (2021). *Oral histories.* https://www.cbu.ca/indigenous-affairs/mikmaq-resource-centre/mikmaq-resource-guide/essays/oral-histories/

- Have you ever participated in a smudge?
- What did that feel like?

Sharing circles have an important role in Indigenous healing. They are "an Indigenous method used to explore a topic (e.g. health) and co-create solutions (e.g. how to restore balance) in a safe and protected space where each individual's thoughts, experiences, feelings and ideas are respected".[22]

READ

To learn more about sharing circles read Sharing Circles by a blog post by Raven on her Silence of the Season website.

DRUMMING

Excerpt from an *Interview with Derrick Bressette, Morning Star River Singers.*[23]

The drum is circular; Mother Earth is circular and that's what that drum represents. It represents Mother Earth. When the singers sound the drum that is the heartbeat of Mother Earth and we give thanks for everything that she gives us. She has been taking care of us from the beginning of time, taking care of us with food, water, medicine, everything. She has never turned her back on us. So when the singers are sounding that drum and the dancers are coming around that drum, they are dancing in time with that drum to show that connection to her. While they are dancing they are thinking about those things that Mother Earth provides for us, but as well they are thinking about all their friends and family that have helped them along the way in their life. Every one of us has been through trying times and we needed our relatives for support. We need our friends for support and they've been there for us no matter how down we have been; they have been there for us. So we need to acknowledge and remember all those people because that drum there represents life, represents all of the seasons, represents all of those things – like the medicine wheel teachings on that drum.

Brian Knockwood of Sipekne'katik First Nation is a local drum maker who has been making drums for more than two decades.

22. Rothe J. P., Ozegovic, D., & Carroll L. J. (2009). Innovation in qualitative interviews: "Sharing Circles" in a First Nations community. *Injury Prevention: Journal of the International Society for Child and Adolescent Injury Prevention, 15,* 334-340. https://www.proquest.com/docview/1780953722?pq-origsite=primo&accountid=13803
23. Transcript from the video interview is reproduced in the document: Government of Nova Scotia. (2021). *Explore music 8: Voices of the drum*. https://curriculum.novascotia.ca/sites/default/files/documents/resource-files/Explore%20Music%208%20Voices%20of%20the%20Drum.pdf

READ

The healing powers of a hand drum: Brian Knockwood's lessons in drum making help people along road to recovery by Logan Perley posted January 27, 2020 to CBC News New Brunswick.

Learn more about Brian and how he uses drumming in his work as a substance use counsellor.

8.3B ACTIVITIES

1. Choose one of the following NFB films about Indigenous drumming.
    a. First Stories – His Guidance (Okiskinotahewewin)
    b. Poundmaker's Lodge: A Healing Place
2. What stood out for you? Why?
3. Have you ever experienced drumming?
4. What about taking photographs when people are drumming?
5. When does drumming happen?
6. Can anyone participate in drumming?
7. How does drumming help heal?

There are many other Indigenous treatments for health including spirituality, traditional crafting, narrative therapy, and singing. This is a very small snapshot, please connect with Indigenous service providers and look for meaningful engagement with the Indigenous communities in your area. There is much to learn.

IMAGE CREDITS

- **Canadian Institute of Health Research. (2014). *Honouring our strengths: Indigenous culture as intervention in addictions treatment project*. https://pressbooks.nscc.ca/app/uploads/sites/246/2022/05/3_Common_Cultural_Interventions.pdf**
- **Image of Chief Bob preparing to smudge from: 2017 Anishinabe Naming Ceremony at Springwater Park, ON by antefixus21 via flickr is licensed under CC BY-NC-ND 2.0.**

8.4 TRAUMA INFORMED PRACTICES

Imagine for a moment that someone you know experienced a traumatic incident. How would they cope? Do they have positive experiences and supports in their life that can help with their ability to cope? As a Social Service worker, it is important to recognize the scope of your practice so you do not inadvertently activate someone who has experienced trauma.

8.4A ACTIVITIES

1. Please review The Canadian Centre on Substance Abuse Toolkit[1] on trauma informed practice
2. What is trauma informed?
3. What are the four principles of a trauma informed approach?
4. Why does gender, age, ability and ethnicity matter when we discuss trauma?
5. Imagine you are facilitating a substance use disorder support group. What are two activities you could implement to ensure your group is trauma informed using an intersectional approach

TRAUMA INFORMED PRACTICES FOR WOMEN

Why is gender important when we discuss a trauma-informed approach to support the people we work with? As we discussed in Chapter 1, the intersectional approach must include gender. Women have different needs and women also have different experiences. Research tells us women are more likely to have experienced sexualized violence, are more likely to engage in survival sex, and are more likely to live in poverty.[2] Knowing the issues that impact women specifically, for example, "adverse and traumatic experiences in early childhood, continuation of adversities and trauma in adulthood, intimate partner violence, structural violence, and transgenerational traumas" [3][/footnote] service providers must look beyond the substance use to help address the trauma.

1. Canadian Centre for Substance Use and Addiction. (2014). *Trauma informed care.* https://www.ccsa.ca/sites/default/files/2019-04/CCSA-Trauma-informed-Care-Toolkit-2014-en.pdf
2. Torchalla, I., Linden, I.A., Strehlau, V., Neilson, E.K., & Krausz, M. (2014). "Like a lot's happened with my whole childhood": Violence, trauma, and addiction in pregnant and postpartum women from Vancouver's Downtown Eastside. *Harm Reduction Journal, 12*(1), 1-10. https://doi.org/10.1186/1477-7517-11-34
3. [footnote]Ibid, p. 2

Watch the video *Trauma, Gender, Sex and Substance Use.*[4]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=216#oembed-1

8.4B ACTIVITIES

1. Review the discussion guide *Gendering the National Framework: Trauma-informed Approaches in Addictions Treatment, created by the British Columbia Centre of Excellence for Women's Health* to focus on supporting women's health by ensuring a gendered approach. [5]
2. Brainstorm a list of services that would be specific for programs for women with a substance use disorder
3. What are some of the concerns women may have? How can these be addressed?
4. In the creation of a women's program, what are some of the supports that need to be embedded in the program?
5. How do the social determinants of health impact women

According to Homes, "the majority of substance use services lack a gender-responsive and anti-oppressive approach, that specifically addresses the intersectional violence, oppressive barriers, and diverse experiences of women and femmes".[6] This will take a concerted effort to change; being aware of gender in service provision is a start.

TRAUMA INFORMED PRACTICES FOR INDIGENOUS COMMUNITIES

Trauma due to genocide, colonization, residential schools, and the concerted effort to eradicate Indigenous communities in Canada has had a tremendous impact on Indigenous people. Understanding these experiences using a two-eyed seeing approach will help provide a more culturally safe and trauma informed service.

4. Centre of Excellence for Women's Health. (2018). *Trauma, gender, sex and substance use.* [Video]. Youtube. https://www.youtube.com/watch?v=MxiYc7Kw25w
5. The British Columbia Centre of Excellence for Women's Health. (2010). *Trauma-informed approaches in addictions treatment: Gendering the national framework.* https://bccewh.bc.ca/wp-content/uploads/2014/02/2010_GenderingNatFrameworkTraumaInformed.pdf
6. Homes, C. (2021). *Bridging the gap in women's substance use services: A trauma-informed, gender-responsive, and anti-oppressive approach,* (p. 2). http://repository.cityu.edu/bitstream/handle/20.500.11803/1465/ChristineHolmesCapstone.pdf?sequence=2&isAllowed=y

Food For Thought

- Review the Medicine Wheel Booklet[7]
- What did you notice about the contributors to the document?
- Why is this booklet helpful in developing trauma-informed programs?
- How can you learn more about trauma informed, culturally respectful programs and services in Nova Scotia?

TRAUMA INFORMED PRACTICES FOR 2SLGBTQ COMMUNITIES

Research suggests that individuals who identify as 2SLGBTQ* are impacted by discrimination, victimization, bullying, violence, and trauma; consequently, sexual and gender minority youth are at elevated risk for suicide.[8] This group is also at a higher risk of substance use disorders due to the trauma they face because of their sexuality.[9] To provide a trauma-informed practice for this group, Social Service workers must understand the daily realities of people who identify as 2SLGBTQS. Rojas et al.[10] suggest the following when working with 2SLGBTQ* communities and substance use disorders.

- **Focusing on the psychological impact of homophobia and heterosexism can help explain vulnerability to mental health disorders.**
- **Asking about compounded stigma: how does the client feel about having a substance use disorder, mental health disorder, and/or trauma? What experiences have they had with stigma?**
- **When referring out, confirming providers are knowledgeable in LGBTQ+ affirming practices**
- **Consulting frequently and refer when outside of your area of expertise**
- **Encouraging participation of partner/significant other in treatment**
- **Querying about family of origin messages toward LGBTQ+ patients**
- **If applicable, querying about "coming out" process and/or experiences with family**

7. University of Regina. (n.d.). *Medicine wheel booklet.* https://www.uregina.ca/science/biology/people/faculty-research/gendron-fidji/documents-fidj/Medicine-Wheel-Booklet.pdf
8. Fulginiti, A., Rhoades, H., Mamey, M., Klemmer, C., Srivastava, A., Weskamp, G., & Goldbach, G. (2021). Sexual minority stress, mental health symptoms, and suicidality among LGBTQ youth accessing crisis services. *Journal of Youth and Adolescence, 50*(5), 893-905. https://pubmed.ncbi.nlm.nih.gov/33206318/
9. Rojas, J., Leckie, R., Hawks, E., Holster, J., Del Carmen Trapp, M., & Ostermeyer, B. (2019). Compounded stigma in LGBTQ people: A framework for understanding the relationship between substance use disorders, mental illness, trauma, and sexual minority status. *Psychiatric Annals, 49*(10), 446-452. https://doi.org/10.3928/00485713-20190912-01
10. Ibid.

8.4C ACTIVITIES

1. Review Rainbow Health Ontario for resources that may support learning about 2SLGBTQ* individuals and a substance use disorder. [11]
2. Can you identify one learning?

11. Sherbourne Health. (2020). *Rainbow Health Ontario.* https://www.rainbowhealthontario.ca/

8.5 SELF CARE

Self care in this module is an opportunity to explore an Indigenous practice of care. "Self-care isn't about being self-absorbed—it's about caring for our families, communities, environments, and workplaces".[1]

Please watch this 40 minute video on Indigenous approaches to self-care; an Indigenous approach to self care during a crisis.

https://fb.watch/gw51cS29ny/

What is one new approach you will take to your self-care after watching this video?

1. Moyer, R. (2019). *Self care is about dignity: Caring for all our relations,* (para. 2). https://www.fnha.ca/about/news-and-events/news/self-care-is-about-dignity-caring-for-all-our-relations

Additional Resources

- Finding Quality Addiction Care in Canada: Drug and Alcohol Treatment Guide by the Canadian Centre on Substance Use published in 2017.
- *Dave Murray's legacy: A safer world for drug users by* Travis Lupickpublished May 14, 2020 in The Tyee.
- *First stories – Nganawendaanan Nde'ing (I keep them in my heart)* by documentary filmaker Shannon Letandre. Available for free streaming from the National Film Board.
- *APTN introducing counselling with Indigenous elders into EAP by* Kelsey Rolfe published March 18, 2020 in Benefits Canada.
- Thunderbird Partnership Foundation *Honouring our strengths: A renewed framework to address substance use issues among First Nations People in Canada* by the Thunderbird Partnership Foundation published in 2021
- Trauma Informed Practice Guide by the British Columbia Centre for Excellence on Women's Health published in 2013.
- Building Competence and Capacity *2SLGBTQ+ Competent trauma informed care* by Building Competence and Capacity published in 2021.
- Trauma Informed Practice Guide Nova Scotia by Nova Scotia Health published in 2015.
- The Marguerite Centre Homepage.

CHAPTER 9: HARM REDUCTION

Learning Objectives

By the end of this chapter you should be able to:

1. Describe harm reduction
2. Understand the role of harm reduction programs
3. Summarize harm reduction practices in Canada
4. Identify harm reduction programs in Nova Scotia

9.1 OVERVIEW

What activities do you enjoy? Do you bicycle or skateboard? Do you ski or snowboard in the winter? Do you hike or rappel? In Nova Scotia there are a multitude of outdoor activities that a person can engage in. Some of these activities are riskier than others and hopefully you practice these activities safely, understanding the inherent risks. Harm reduction is minimizing the risks of what can be a risky behaviour.

Getting instructions and proper equipment checks. Credit: Alaska 166 by InternetAgeTraveler CC BY-NC-ND 2.0.

Children wearing helmets. Credit: Courtney Kenady

What do you wear when you go biking? If you said bike shorts, sneakers, or bicycle helmet, great! Those are some of the items a person would wear to participate safely in cycling. This is harm reduction. In the world of substance use, using clean syringes, distilled water, fresh cottons, cookers, and pipes, as well as disposable mouthpieces, help individuals use substances safely. This is also harm reduction. The risky behaviour can be immediate or long term and harm reduction is a critical component of a robust drug policy in any community, province, or country. Harm reduction comes from a concern for health, recognizing the complexity of substance use.

Food For Thought

- What does no judgment mean?
- Is it possible to live/work without judging others? How?
- How do people with substance use disorders get judged?

Providing a low to no barrier service is critical for a successful harm reduction program. Canada's support for low barrier harm reduction services has been growing steadily since the 1980's and "national and international support for harm reduction is growing while almost all the major UN organizations responsible for drug policy now support harm reduction".[1] To gain greater understanding, watch one of Canada's leaders in substance use disorders discuss the concept of harm reduction as part of service delivery.[2]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=227#oembed-1

IMAGE CREDITS

Alaska 166 by InternetAgeTraveler via flickr is licensed under CC BY-NC-ND 2.0.

Children wearing helmets by Courtney Kenady shared under a Unsplash license.

1. Wodak, A., & McLeod, L. (2008). The role of harm reduction in controlling HIV among injecting drug users. *AIDS, 22,* 81–92. https://doi.org/10.1097/01.aids.0000327439.20914.33

2. Centre for Addiction and Mental Health. (2010, Dec. 13). *Harm reduction.* [Video]. Youtube. https://www.youtube.com/watch?v=KY7_ytZDlN8&t=1s

9.2 WHAT IS HARM REDUCTION

> I did have a family doctor for some time, until I told her I was escorting for work. And she totally turned her nose up at me. I wanted to get a pap smear and a blood test, but she basically sent me out. So I went somewhere else and got it done. My safety and my wellbeing is still, huge. I might be a drug addict, but, like, regardless I want to make sure that I'm healthy and get checked. Because, you know, it's a dangerous lifestyle. And you would expect your doctor to help you.[1]

Harm reduction, based on the definition by the International Harm Reduction Association is stated as "policies, programmes and projects that aim to reduce the health, social and economic harms associated with the use of psychoactive substances. It is an evidence-based and cost-effective approach – bringing benefits to the individual, community and society".[2] In Canada, harm reduction programs are heavily dependent on community-based agencies and reliant on provincial and federal government funding for service provision, so lack consistency. In 2015, "only two jurisdictions in Canada had current provincial-level, stand-alone harm reduction policies",[3] which confirms what many individuals working in harm reduction in Canada have suggested, that a harm reduction philosophy is not embedded in policy or funding at any governmental level.

There are a variety of agencies that address substance use, from the Government of Canada, correctional facilities, Public Health, Canadian Centre on Substance Abuse, The Centre for Addiction and Mental Health, National Native Alcohol and Drug Abuse Program, and various health authorities, private agencies, and businesses as well as non-governmental organizations across the country. Each of these agencies have a mandate to address substance use in some way, from individual treatment through to incarceration. Each of these agencies focuses on substance use differently, some recognizing the intersectionality of substance use while others do not. Part of the work of Social Service workers is to address the stigma associated not only with substance abuse but also with harm reduction. How can this be done?

1. Torchalla, I., Linden, I. A., Strehlau, V., Neilson, E. K., & Krausz, M. (2014). "Like a lots happened with my whole childhood:" Violence, trauma, and addiction in pregnant and postpartum women from Vancouver's Downtown Eastside. Harm Reduction Journal, 11, 34. https://doi.org/10.1186/1477-7517-11-34
2. International Harm Reduction Association. (2021). *What is harm reduction.* https://www.hri.global/what-is-harm-reduction
3. Hyshka, E., Anderson-Baron, J., Karekezi, K., Belle-Isle L., Elliott, R., Pauly, B., Strike, C., Asbridge, M., Dell, C., McBride, K., Hathaway, A., & Wild, T. C. (2017). Harm reduction in name, but not substance: A comparative analysis of current Canadian provincial and territorial policy frameworks. *Harm Reduction Journal, 14*(1), 50. https://doi.org/10.1186/s12954-017-0177-7

9.2A ACTIVITIES

1. Review this Position paper on harm reduction by the International Harm Reduction Association.[4]
2. What does the term "targeted at risks and harms"[5] suggest?
3. What are two harm reduction strategies or programs you can identify in your community?
4. What theories try to address harm reduction? How do they suggest this be done?
5. Why do some claim that harm reduction is cost-effective?
6. How does harm reduction address the intersectionality of substance use?

Why is harm reduction important? Effective harm reduction programs seek to serve some of the most marginalized individuals in our country. As we have explored, substance use is frequently misunderstood and stigmatized; therefore it stands to reason that harm reduction strategies that help support individuals who use substances would be concurrently maligned and perhaps not overtly supported in Canada. Part of your work, as Social Service workers, is to address the stigma associated with not only substance abuse, but harm reduction.

Please watch the video *The Merits of Harm Reduction* to further understand harm reduction in Canada.[6]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=229#oembed-1

Harm reduction is a philosophy that can humanize the way we see/engage with and support people who live with a substance use disorder and a way we can reduce stigma and help educate the public.

4. International Harm Reduction Association. (2021). *What is harm reduction.* https://www.hri.global/what-is-harm-reduction
5. International Harm Reduction Association. (2010). *What is harm reduction? A position statement from the International Harm Reduction Association*. https://www.hri.global/files/2010/08/10/Briefing_What_is_HR_English.pdf
6. TedX Talks. (2019, Nov. 6). *The merits of harm reduction | Melissa Byers.* [Video]. Youtube. https://www.youtube.com/watch?v=qU_MWjIUFmE

9.3 HARM REDUCTION SERVICES IN CANADA

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=235#h5p-34

Harm reduction strategies can involve any of the following: safer use information, syringe distribution programs, education programs, opiate substitution programs, withdrawal management, safe consumption sites, peer helping and community development. Harm reduction access in Canada depends on the area in which one lives, for example, living in an urban area increase the chances to access harm reduction programs. Research suggests harm reduction services in Canada lack consistency as they are heavily dependent on the provincial governments; organizations lack continuous funding, must participate in a difficult application process for funds, and provinces and territories share different values when it comes to harm reduction.[12]

EXPLORE

Please review the interactive Opioid crisis map created by the Government of Canada which indicates harm reduction services focusing on the opioid crisis. Use the map to find locations of opioid-related activities taking place in communities across Canada.

It is not only service providers that are on the front line of harm reduction; it is also critical to acknowledge the work that has been done by the people who use substances. They have advocated for themselves, their peers, and their communities in the face of significant public backlash, threats of incarceration, and inaction on the part of federal, provincial and municipal governments. They have led the harm reduction movement in Canada; they deserve our gratitude: **To those who have come before: we are in your debt.**

1. Hyshka, E., Anderson-Baron, J., Karekezi, K., Belle-Isle L., Elliott, R., Pauly, B., Strike, C., Asbridge, M., Dell, C., McBride, K., Hathaway, A., & Wild, T. C. (2017). Harm reduction in name, but not substance: a comparative analysis of current Canadian provincial and territorial policy frameworks. *Harm Reduction Journal, 14*(1), 50. https://doi.org/10.1186/s12954-017-0177-7
2. Cavalieri, W., & Riley D (2012). Harm reduction in Canada: The many faces of regression. In Pates & D. Riley (Eds.), *Harm reduction in substance use and high risk behaviour: international policy and practice* (pp. 392–394). Wiley-Blackwell.

Hear Us, See Us, Respect Us poster. Credit: Touesnard et. al.

Abstinence is not the goal of harm reduction; the goal is to support an individual wherever they may be on the spectrum of substance use. In this section, we will look at some of the more well-known harm reduction programs in Canada. This is by no means a comprehensive list of all harm reduction services across Canada; however, it offers Social Service workers a snapshot of programs that exist.

We discussed in Chapter 3 that alcohol is one of the most widely used substances in Canada; alcohol use is on a spectrum. Long term alcohol use has risks, for example average long-term consumption levels as low as one or two drinks per day have been causally linked with significant increases in the risk of at least eight types of cancer and numerous other serious medical conditions including pancreatitis, liver cirrhosis and hypertension.[3] Does this mean that everyone who drinks alcohol will develop one of these issues? No, however it increases the risk and when we include the intersectional factors including gender, race, trauma, and add disability, lack of affordable housing, incarceration, , and other social determinants of health, we increase the health risks again.

The Canadian Institute on Substance Use Research along with the University of Victoria are currently undertaking a review of harm reduction programs that support individuals with a dependency on alcohol, in particular (MAPs). People with severe alcohol dependence who engage in unsafe consumption (amount and consumption of non-beverage alcohol, like hand sanitizer or mouthwash) and a lack of housing are vulnerable to multiple harms.[4] Managed Alcohol Programs aim to reduce the harms to individuals who are at risk by providing a safe source of alcohol coupled with services which may include housing, counselling, healthcare, and peer support. "MAPs are harm

3. Butt, P., Beirness, D., Cesa, F., Gliksman, L., Paradis, C., & Stockwell, T. (2011). *Alcohol and health in Canada: A summary of evidence and guidelines for low-risk drinking.* Canadian Centre on Substance Abuse. https://www.uvic.ca/research/centres/cisur/assets/docs/report-alcohol-and-health-in-canada.pdf
4. Pauly B. B., Reist, D., Belle-Isle, L., & Schactman, C. (2013). Housing and harm reduction: What is the role of harm reduction in addressing homelessness? *International Journal on Drug Policy, 24*(4), 284–290. https://pubmed.ncbi.nlm.nih.gov/23623720/

reduction programs intended to reduce harms of high-risk drinking or severe alcohol use disorder often coupled with ongoing experiences of homelessness or poverty".[5]

There are many different MAP programs in Canada "including community day programs, residential models located in shelters, transitional and permanent housing and hospital-based programs".[6] Every program has different criteria, some address intersectional issues and are gender, race and age specific; nonetheless, all programs have the common goal of preserving dignity and reducing harms of drinking while increasing access to housing, health services, and cultural connections. MAPs have become an important part of harm reduction in Canada. Click here for a list of MAP sites in Canada.[7] This documentary by CBC highlights some of the individuals who utilize MAPs as well as the healthcare and shelter staff who support these individuals. Please click here to watch The Pour.[8]

Opiate use disorders may be managed by HAT. The first HAT in Canada began in 2005, North America Opiate Medication Initiative (NAOMI) which ran simultaneously in Vancouver and Montreal from 2005-2008[9] . Many participants were living in unstable housing and over 90% of participants had been engaged in some criminal activity during their lifetime.[10] Participants were given daily doses of prescription opiates and services to support their other health needs, a comprehensive range of psychosocial and primary care services.[11] There was also a control group which received Methadone Maintenance Therapy. The results showed a reduction in average spending on substances, a reduction in illicit-drug use or other illegal activities, an improvement in medical and psychiatric status, improvement in employment satisfaction, and family and social relations.[12] There was advocacy to continue the trial for compassionate reasons; however, this was denied by the Canadian Government. "After a year of receiving HAT, participants entered a three-month transition when they were offered a range of traditional treatments, including MMT and detox. After the three-month transitional period, no further treatment or supports were offered".[13]

5. Canadian Institute for Substance Use Research. (n.d.). *Scale up of managed alcohol programs. Bulletin #20.* 1-4. https://www.uvic.ca/research/centres/cisur/assets/docs/bulletin-20-scale-up-of-maps.pdf
6. Canadian Institute for Substance Use Research. (n.d.). *Scale up of managed alcohol programs. Bulletin #20.* 1-4. https://www.uvic.ca/research/centres/cisur/assets/docs/bulletin-20-scale-up-of-maps.pdf
7. Canadian Institute for Substance Use Research. (2021). *Overview of Managed Alcohol Program (MAP) sites in Canada (and beyond).* https://www.uvic.ca/research/centres/cisur/assets/docs/resource-overview-of-MAP-sites-in-Canada.pdf
8. CBC. (2016). *The Fifth Estate: The Pour.* https://www.cbc.ca/player/play/849395779835
9. Oviedo-Joekes, E., Nosyk, B., Brissette, S., Chettiar, J., Schneeberger, P., Marsh, D. C., Krausz, M., Anis, A., & Schechter, M. T. (2008). The North American Opiate Medication Initiative (NAOMI): Profile of participants in North America's first trial of heroin-assisted treatment. Journal of Urban Health: Bulletin of the New York Academy of Medicine, 85(6), 812–825. https://doi.org/10.1007/s11524-008-9312-9
10. Oviedo-Joekes, E., Nosyk, B., Brissette, S., Chettiar, J., Schneeberger, P., Marsh, D. C., Krausz, M., Anis, A., & Schechter, M. T. (2008). The North American Opiate Medication Initiative (NAOMI): Profile of participants in North America's first trial of heroin-assisted treatment. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, *85*(6), 812–825. https://doi.org/10.1007/s11524-008-9312-9
11. Ibid.
12. Berridge, V. (2009). Heroin prescription and history. *The New England Journal of Medicine, 361*, 820-821. https://psycnet.apa.org/doi/10.1056/NEJMe0904243
13. The NAOMI Patients Association & Boyd, S. (2012). *NAOMI research survivors; experiences and recommendations* (p. 20). https://drugpolicy.ca/wp-content/uploads/2012/03/NPAreportMarch5-12.pdf

Opiate use in Canada has been called a crisis[14] and in April 2016, a public health emergency was announced in British Columbia. According to the Government of Canada, there were 22,828 apparent opioid toxicity deaths between January 2016 and March 2021. Since the onset of the COVID-19 pandemic, 6,946 apparent opioid toxicity deaths occurred (April 2020 to March 2021), representing an 88% increase from the same period prior to the pandemic.[15] The National Harm Reduction Coalition (2021)[16] suggests there are between 75,000-125,000 people in Canada who are injecting substances, which increases risks of HIV/Hepatitis as well as other blood borne illnesses, bacterial infections, abscesses, and vein collapse. There is much information on safe injection use; however, the risks still exist.

People who have an opiate use disorder come from all walks of life. Opiate use disorder is "a chronic relapsing disease and is often accompanied by abuse of other psychoactive drugs, physical and mental health problems, and severe social marginalization".[17] For some individuals, abstinence is not an option. Though there are programs like methadone maintenance therapy (MMT), as discussed in Chapter 8, these programs are not universally accessible and not universally successful.[18]

A network of individuals who had participated in NAOMI, a heroin assisted treatment program discussed in Chapter 8 gathered in 2011 to discuss their experiences and this work was collected by Dr. Susan Boyd, culminating in the creation of NAOMI Research Survivors: Experiences and Recommendations.[19] Please review the guide.

The recommendations from NAOMI participants are listed here:

1. **When experimental substance maintenance programs are over, clients (research subjects), for compassionate reasons should receive the drug they were on as long as they need it.**
2. **An ideal study would provide an umbrella of support and services including**
    - **housing (most important)**
    - **access to medical treatments all under one roof (nurses, doctors, dentists)**
    - **access to welfare workers (who are familiar with the area and the people who live there) and ministry representatives**
    - **access to nutritious food for self and family**
    - **support to move life forward (school, trade, family unification)**
    - **access to lawyers**

14. Government of Canada. (2021, Sept. 22). *Opioid- and stimulant-related harms in Canada.* https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/
15. Ibid.
16. The National Harm Reduction Coalition. (2021). Priniciples of harm reduction. https://harmreduction.org/
17. Van den Brink, W., & Haasen, C. (2006). Evidenced-based treatment of opioid-dependent patients. *Canadian Journal of Psychiatry*, 51, 635–646. https://doi.org/10.1177/070674370605101003
18. Goldstein, M. F., Deren, S., Kang, S. Y., Des Jarlais, D. C., & Magura, S. (2002). Evaluation of an alternative program for MMTP drop-outs: Impact on treatment re-entry. *Drug Alcohol Dependence*, 66, 181–187. https://doi.org/10.1016/S0376-8716(01)00199-5
19. The NAOMI Patients Association & Boyd, S. (2012). *NAOMI research survivors; experiences and recommendations.* https://drugpolicy.ca/wp-content/uploads/2012/03/NPAreportMarch5-12.pdf

- **education/advocacy skills and access to advocates**
- **diverse routes of administration available – oral, smoking form, injection. Not all people want to inject their drug.**

This project and the subsequent recommendations helped many working in harm reduction gain a deeper understanding of the research process and the ethics of studies on individuals who use substances.

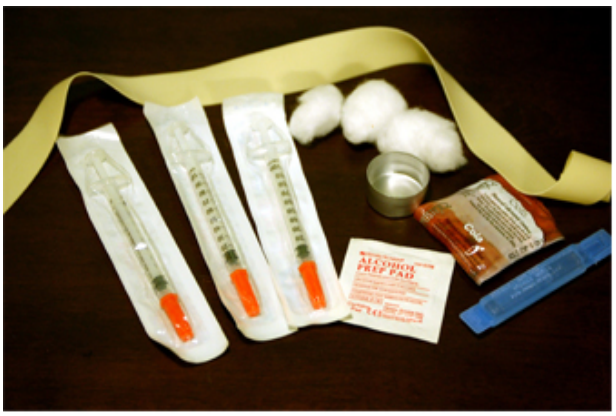
Food For Thought

- Why would an individual participate in a study like NAOMI?
- What are the ethical concerns with NAOMI?
- After reviewing the positive outcomes, why was NAOMI stopped?
- What would it take to develop a HAT program in your community?

Providence Health in British Columbia continued this work and launched the Study to Assess Longer-term Opioid Medication Effectiveness (SALOME), which concluded in 2016. This was a clinical trial that tested alternative treatments, specifically prescription opiates, for people with chronic opiate use disorders who were not benefitting from currently known treatments.[20] From the success of participants during both the NAOMI and SALOME studies, the courts decided that those who were continuing to benefit from HAT could continue receiving their treatment, though the research was concluded in 2016.[2122] There is no current HAT program in Canada.

Syringe distribution programs offer clean syringes, alcohol swabs, cookers, water, cottons, all the materials one would need to inject more safely. They also provide safer injection information including safer injection places on the body, vein care, and when to get help. They provide condoms and safer sex information to reduce risks of sexually transmitted infections. They provide a safe space to build relationships, and for those who want to move towards a reduction in use or abstinence, staff at SDP can make referrals to various treatment options. Being a first point of contact has a tremendous amount of responsibility; Social Service workers should have a good understanding of services in their community.

20. Providence Health Care. 2016. *SALOME.* https://www.providencehealthcare.org/salome/about-us.html
21. Canadian Drug Policy. (2021). *Heroin assisted treatment*. https://drugpolicy.ca/our-work/issues/heroin-assisted-treatment/
22. Providence Health Care. 2016. *SALOME.* https://www.providencehealthcare.org/salome/about-us.html



(a)

(b)

(a) Needle exchange kit. Credit: Todd Huffman Phoenix, AZ CC BY 2.0. (b) Converting Heroin Tar into "Monkey Water". Credit: Psychonaught, Public domain

In Vancouver, the epicentre of the HIV crisis in the 1990's, individuals and agencies were advocating for the development of safer injection. Syringe distribution programs (SDP) began to reduce the spread of blood borne illnesses, including HIV, and since 2018 the Canadian Government has endorsed syringe distribution programs as an effective harm reduction strategy through the pillars of the Canadian Drug and Substances Strategy. Research continues to support the benefit of SDP including a reduction in HIV transmission.[23] Syringe distribution is more than just reduction of HIV; through providing a clean needle, it may be the first point of access to a non-judgmental health service for an individual.

Loading supplies into the trunk of a car. Credit: Mainline Needle Exchange

In Nova Scotia, there are a number of syringe distribution programs. Mainline Needle Exchange has a rich history of providing harm reduction/health promotion services in Nova Scotia including the provision of needles, syringes, other drug use supplies, and condoms; the collection and appropriate disposal of needles; awareness and education on harm reduction practices related to safer injection and sexual practices and general health; and the provision of peer support by people in recovery.[24] A program of the Mi'kmaq Native Friendship Centre, Mainline began providing harm reduction services in 1992 in response to an identified need in the community.[25] Other syringe distribution services in Atlantic Canada include but are not limited to:

23. Canadian Agency for Drugs and Technology in Health. (2015). *Needle exchange programs in a community setting: A review of the clinical and cost-effectiveness.* https://cadth.ca/sites/default/files/pdf/htis/2017/RC0705%20Needle%20Exchange%20in%20Community%20Final.pdf
24. Atlantic Interdisciplinary Research Network. (2016). *Program evaluation for Mainline Needle Exchange: Contributing to a harm reduction landscape in Nova Scotia.* http://www.airn.ca/uploads/8/6/1/4/86141358/mainline_evaluation_report_final_2027.pdf
25. Ibid.

- **Ally Centre of Cape Breton**
- **AIDS Committee of Newfoundland and Labrador, Safe Works Access Program**
- **AIDS New Brunswick**

Internationally more than 65 Safe Injection Sites (SIS) have been opened as part of harm reduction strategies associated with substance use.[26] Also known as safe consumption sites (SCS), these facilities have been an important part of the harm reduction landscape, particularly in Western Canada since the advent of the HIV crisis and most recently the ongoing public health crisis of opioid overdoses and death.[27] SIS are places where people can more safely inject substances using clean equipment under the supervision of medically trained personnel which reduces the risk of overdose and blood borne illnesses. It also allows individuals who may not have had any positive connection to healthcare or other support services to build relationships if they choose. Most SIS have expanded their mandate to include various forms of consumption. What if substance use is hidden? In rural areas substance use is not always seen in public, which may challenge communities to acknowledge the substance use of its residents.

Food For Thought

- Does Nova Scotia have an SIS?
- Is safe consumption an issue in NS?
- What services should be provided in a local SIS?
- Should all communities have access to SIS? Why? Why not?
- What types of challenges may exist in the development of a SIS in your community?
- Any idea on how to deal with the challenges?

A common question is whether the site provides the substances. The answer is a resounding no, the substances are not provided by anyone at the facility but are brought there by the individuals who use the service. Most SIS are located in areas where there is a high prevalence of substance abuse and researchers suggest SIS should be developed in areas where injection use and overdose are common.[28] The SIS workers help to create a safer space for individuals to use their substance, providing safe

26. Marshall, B. D., Milloy, M. J., Wood, E., Montaner, J. S., & Kerr, T. (2011). Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. *The Lancet, 377*(9775), 1429-1437. https://doi.org/10.1016/S0140-6736(10)62353-7
27. Government of Canada. (2021, Sept. 22). *Opioid- and stimulant-related harms in Canada.* https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/
28. Marshall, B. D., Milloy, M. J., Wood, E., Montaner, J. S., & Kerr, T. (2011). Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. *The Lancet, 377*(9775), 1429-1437. https://doi.org/10.1016/S0140-6736(10)62353-7

equipment, referrals to support services, and in the case of an overdose, medically trained staff to treat the overdose. Many SIS provide "peer assistance."

Peer assistance refers to one person providing assistance to another in the course of preparing and consuming drugs. Those requiring peer assistance often include women, people with disabilities or illness, and other vulnerable populations. Friends or other clients may help assist, but employees of a supervised consumption site do not directly administer the drugs.[29]

Beyond the services provided regarding preventing overdose and illness, people who use substances are at risk when using in a public area; these risks include being caught by police, being physically or sexually assaulted, or robbed.[30] Having a safe place to go reduces those risks. One of the ways SIS are helping to reduce the risk of accidental overdose is using testing kits. People can bring in their substance, have it tested, get information on what is in their substance, which helps them make a more-informed decision about what they use.[31] This is a necessity in Canada when substances are bought and sold in the black market. Without regulation, there is risk when you purchase a substance. SIS provide testing kits to prevent overdose and illness. To learn more, please read the following article about testing kit expansion in Saskatchewan. Province expands testing kits.

InSite, a service of PHS Community Services Society, a large non-profit organization in British Columbia, is one of the best known SIS facilities in Canada. InSite was the first safer injection site in Canada. Since its inception, InSite has provided 6,440 overdose interventions without any deaths.[32] InSite has also expanded their services to provide safer consumption, which includes more than just injection but the safer consumption of substances that can be taken by other routes of administration, for example, inhalation. InSite has also developed OnSite, a withdrawal management and recovery program.

Please watch the video *Inside Insite.* and take a virtual tour of InSite.[33]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=235#oembed-1

What is the difference between a supervised consumption/supervised injection site and an overdose prevention site (OPS)?

Internationally more than 65 Safe Injection Sites (SIS) have been opened as part of harm reduction

29. Government of Canada. (2021, Nov. 11). Supervised consumption sites: Status of applications.https://www.canada.ca/en/health-canada/services/substance-use/supervised-consumption-sites/status-application.html
30. Green, T. C., Hankins, C. A., Palmer, D., Boivin, J. F., & Platt, R. (2004). My place, your place or a safer place: The intention among Montreal injecting drug users to use SIF. *Canadian Journal of Public Health, 95*(2),110-114. https://www.jstor.org/stable/41994109
31. Maghsoudi, N., Tanguay, J., Scarfone, K., Rammohan, I., Ziegler, C., Werb, D., & Scheim, A. (2021). The implementation of drug checking services for people who use drugs: A systematic review. *Qeios*. https://doi.org/10.32388/TXE86U
32. Vancouver Coastal Health. (2020). *Supervised consumption sites.* http://www.vch.ca/public-health/harm-reduction/supervised-consumption-sites
33. National Film Board of Canada (2017, May 26). *Inside Insite.* [Video]. Youtube. https://www.youtube.com/watch?v=7gIyBMt2BEk

strategies associated with substance use.[34] Also known as safe consumption sites (SCS), these facilities have been an important part of the harm reduction landscape, particularly in Western Canada since the advent of the HIV crisis and most recently the ongoing public health crisis of opioid overdoses and death.[35] SIS are places where people can more safely inject substances using clean equipment under the supervision of medically trained personnel which reduces the risk of overdose and blood borne illnesses. It also allows individuals who may not have had any positive connection to healthcare or other support services to build relationships if they choose. Most SIS have expanded their mandate to include various forms of consumption. What if substance use is hidden? In rural areas substance use is not always seen in public, which may challenge communities to acknowledge the substance use of its residents.

They are generally staffed by peers and harm reduction workers.[36] OPS are not required to have health care professionals on staff and are considered "pop-up" as they are a mobile response to overdose prevention. In September of 2019, Atlantic Canada's first government approved OPS opened in the basement of Direction 180, a Methadone Maintenance Program in Halifax, due to the lobbying efforts of numerous harm reduction agencies in Nova Scotia. OPS's have made an impact across Canada; nonetheless, there is limited research on OPSs.[37] OPS are a very low-barrier harm reduction service.

9.3A ACTIVITIES

1. Research SIS and OPS. What are the similarities and differences?
2. What is the process to apply for an exemption of the CDSA for an SIS? OPS?
3. How long can an OPS operate?
4. Who funds an OPS?
5. How can you support an OPS?
6. Read the following article.
   Atlantic Canada's first overdose prevention set to open in Halifax by Alexa MacLean. Posted July 17, 2019 to Global News.
7. What is one learning?

34. Marshall, B. D., Milloy, M. J., Wood, E., Montaner, J. S., & Kerr, T. (2011). Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. *The Lancet, 377*(9775), 1429-1437. https://doi.org/10.1016/S0140-6736(10)62353-7
35. Government of Canada. (2021, Nov. 11). *Supervised consumption sites: Status of applications.* https://www.canada.ca/en/health-canada/services/substance-use/supervised-consumption-sites/status-application.html
36. Pauly, B., Wallace, B., Pagan, F., Phillips, J., Wilson, M., Hobbs, H., & Connolly, J. (2020). Impact of overdose prevention sites during a public health emergency in Victoria, Canada. *PLoS One, 15*(5). https://doi.org/10.1371/journal.pone.0229208
37. Ibid.

Naloxone kits as distributed in British Columbia. Credit: James Heilman

As of October 23, 2021, 33 Nova Scotian's lost their life to overdose.[38] One way to prevent overdose deaths, as part of a comprehensive harm reduction strategy, is to ensure individuals and communities have access to an opioid antagonist to an opioid overdose.

In 2017, the Nova Scotia Department of Health and Wellness recognized individuals using opioids and their family and peer groups must have access to naloxone and created the Nova Scotia Take Home Naloxone Program.[39] The program "provides opioid overdose prevention/naloxone administration training and free take home naloxone kits to Nova Scotians at risk of an opioid overdose and those who are most likely to witness and respond to an opioid overdose".[40]

9.3B ACTIVITIES

1. What increases the risk of an opiate overdose?

38. Government of Nova Scotia. (2021). *Nova Scotia take home naloxone program.* http://www.nsnaloxone.com/about-the-program.html
39. Government of Nova Scotia. (2021). *Nova Scotia take home naloxone program.* http://www.nsnaloxone.com/about-the-program.html
40. Ibid.

2. Other than naloxone, how can communities help prevent overdose?
3. Where would someone go for naloxone in your community?

Food For Thought

- Why would some pilot projects on substance use disorders do not get funded?
- What is the role of media in sharing information?
- What is the role of activism/advocacy?

Click on the following link for more information on how to respond to an overdose http://www.nsnaloxone.com/uploads/1/1/2/0/112043611/naloxone_-_how_to_prepare_final__110.mp4

Naloxone kits are just one component; helping individuals understand the risks of using a substance alone is another arm of naloxone.

Please watch the video *How to Spot Someone so They Never Use Alone.*[41]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=235#oembed-2

There are many forms of harm reduction and many harm reduction programs in Canada. Harm reduction is an important pillar in healthcare for people who use substances.

IMAGE CREDITS

- **Hear Us, See Us, Respect Us Poster from: Touesnard, Natasha, Patten, San, McCrindle, Jenn, Nurse, Michael, Vanderschaeghe, Shay, Noel, Wyatt, Edward, Joshua, & Blanchet-Gagnon, Marie-Anik. (2021). *Hear Us, See Us, Respect Us: Respecting the Expertise of People who Use Drugs (3.0)*. Zenodo. https://doi.org/10.5281/zenodo.5514066**
- **Needle exchange kit by Todd Huffman via Wikimedia Commons shared under CC BY 2.0 license.**
- **Converting Heroin Tar into "Monkey Water" by Psychonaught via Wikimedia Commons Public domain image.**
- **Mainline Needle Exchange. (2021). Loading supplies into the trunk of a car [image]. *About***

41. Canadian Association of People who Use Drugs. (2021). *How to spot someone so they never use alone.* [Video]. Youtube. https://www.youtube.com/watch?time_continue=3&v=KbUwb-pszW4&feature=emb_logo

us. **https://mainlineneedleexchange.ca/about-us/**

- **Naloxone kits as distributed in British Columbia by James Heilman via Wikimedia Commons shared under a CC BY-SA license.**

9.4 A GENDER APPROACH TO HARM REDUCTION

Women who use substances have unique needs when it comes to health services and support. Women who use substances are often discriminated against from healthcare to employment to parenting. For example, some women who use substances and are pregnant have been targeted with Birth alerts in Nova Scotia.[1]

Harm reduction programs that do not take into account gender fail to address the systemic and everyday racialized and gendered discrimination, stigma, and violence that can be experienced by women in an all-gender harm reduction service, which limits some women's access.[2] While all genders who use substances can experience the socioeconomic, physical and mental health impacts of substance abuse, women are at a greater disadvantage because of systemic inequity.[3]

This means women have less employment opportunities and earn less, have more health risks, and have barriers to education.[4] Using intersectionality we can examine the different risks, including pregnancy, sexualized violence, violence, sex work and human trafficking, recognizing not all women have the same experiences.

WOMEN AND VIOLENCE

In Canada, rates of police-reported domestic violence have decreased due to increased social equality and financial freedom for women; there is improved public awareness, more treatment programs for violent men, improved training for police officers and Crown attorneys, more coordination of community services, and the creation of domestic violence legislation in some areas of Canada.[5]

There are also trends that are disturbing, including an increase in intimate partner violence among those who are not married, as well as an increase in gendered violence during natural disasters.[6] Girls are 1.5 times more likely to experience violence at home and we know approximately every six days, a woman in Canada is killed by her intimate partner.[7] This results from a complex interplay of

1. Canadian Press. (2021, December 1). *N.S. called on to do more to help vulnerable pregnant women after ending birth alerts. Halifax City News.* https://halifax.citynews.ca/nova-scotia-news/ns-called-on-to-do-more-to-help-vulnerable-pregnant-women-after-ending-birth-alerts-4817878
2. Collins, A., Boyd, J., Czechaczek, S., Hayashi, K., & McNeil, R. (2020). (Re)shaping the self: An ethnographic study of the embodied and spatial practices of women who use drugs. *Health & Place, 63.* https://doi.org/10.1016/j.healthplace.2020.102327
3. Ettorre, E. (2004). Re-visioning women and drug use: gender sensitivity, embodiment and reducing harm. *International Journal of Drug Policy, 15*(5), 327-335, https://doi.org/10.1016/j.drugpo.2004.06.009
4. Canadian Women's Foundation. (2020). *Report finds women in Canada still face systemic inequality, encourages action.* https://canadianwomen.org/blog/report-finds-women-in-canada-still-face-systemic-inequality-encourages-action/
5. Canadian Centre for Justice Statistics. (2015). *Family violence in Canada: A statistical profile,* (p. 94). https://www150.statcan.gc.ca/n1/pub/85-002-x/2014001/article/14114-eng.pdf
6. Canadian Women's Foundation. (2021). *The facts about women and poverty in Canada.* https://canadianwomen.org/the-facts/womens-poverty/
7. Canadian Centre for Justice Statistics. (2015). *Family violence in Canada: A statistical profile*. https://www150.statcan.gc.ca/n1/pub/85-002-x/2014001/article/14114-eng.pdf

social, political, and economic factors.[8] When we examine harm reduction from a gender perspective, however, violence must be one of the areas we are willing and able to address.

WOMEN AND PREGNANCY

> *I've never seen a pregnant woman in there [SisterSpace], first of all, and I never seen anyone I know who has their kids. I think they would be discouraged because they don't want people to see them and call the Ministry [of Children and Family Development] on them. So I don't think... like I wouldn't go there if I had my...[kids].*[9]

For women who use substances, reproduction is a complicated issue. Pregnant women and mothers who use substances have been judged harshly, as substance use has not been seen as conducive to having children or even being engaged in family life.[10] For decades mothers who use substances have had children removed from their care. "Whether their babies are taken from them after birth or they are told to have an abortion, be sterilized, etc., these bodies are viewed as not fit to reproduce".[11] Women, whether they use substances or not, have a basic human right to reproduce (Ettore, 2004), therefore, this group of women need programs which address their needs, not seeking to demonize them.

WOMEN AND SEX WORK

Sex work is being paid (this may include cash, clothing, tuition, housing, or other currencies) through work in strip clubs, 'sugaring' [explain], selling nudes, escorting or agency work, massage parlours or freelancing, drift sex or survival sex.[12] The work may take place indoors (with an agency) or outdoors (drift sex). On an occupational level, women who engage in drift or survival sex work are confronted with many risks including sexually transmitted or blood borne illnesses, sexualized and physical violence and overdose; "sex workers are more likely to experience violence and poor health than the general population".[13] Does this mean that engaging in sex work will result in substance use and violence? No, "the violence and poor health currently experienced by some sex workers are not inherent to the work — they are the products of punitive laws and inadequate social conditions".[14] There are risks associated with sex work, and it is important to be aware of the risks from a gender perspective when working with women who engage in sex work.

8. The VANDU Women CARE Team. (2009). *Me, I'm living it: The primary health care experiences of women who use drugs in Vancouver's Downtown Eastside.* https://bccewh.bc.ca/wp-content/uploads/2012/05/2009_Me-Im-Living-It.pdf
9. Collins, A., Boyd, J., Czechaczek, S., Hayashi, K., & McNeil, R. (2020). (Re)shaping the self: An ethnographic study of the embodied and spatial practices of women who use drugs. *Health & Place, 63.* https://doi.org/10.1016/j.healthplace.2020.102327
10. Ettorre, E. (2004). Re-visioning women and drug use: gender sensitivity, embodiment and reducing harm. *International Journal of Drug Policy, 15*(5), 327-335, https://doi.org/10.1016/j.drugpo.2004.06.009
11. Ibid, p. 331
12. Kendrick, C., MacEntee, K., Wilson, C., & Flicker, S. (2021). Staying safe: How young women who trade sex in Toronto navigate risk and harm reduction. *Culture, Health & Sexuality,* 1. https://doi.org/10.1080/13691058.2021.1900603
13. Canadian Institutes for Health Research. (2015). Science fact or science fiction: Are all sex workers victimized? *Mythbuster*, 5, 1-2. https://cihr-irsc.gc.ca/e/documents/igh_mythbuster_issue5_2015_en.pdf
14. Benoit, C., Atchison, C., Casey, L. Jansson, M., McCarthy, B., Phillips, R., & Shaver, F. M. (2014). *A "working paper" prepared as background to building on the evidence: An international symposium on the sex industry in Canada,* (para. 3). https://www.understandingsexwork.ca/sites/default/files/uploads/Team%20Grant%20Working%20Paper%201%20CBenoit%20et%20al%20%20September%2018%202014.pdf

In offering harm reduction services to those doing sex work, it is imperative that trauma-informed services must be embedded in every level of service provision. Programming in a harm reduction program for women who engage in sex work must include an understanding of the sex industry. There is one program in Nova Scotia which supports sex workers and provides education harm reduction workers, Stepping Stone Nova Scotia. If we look beyond Nova Scotia, an example of one of the organizations in Canada that supports harm reduction and women is STELLA, located in Montreal. STELLA is an organization supporting female identified sex workers.

9.4A ACTIVITIES

1. Please review the following document: A Reflection on … Sex Work and Harm Reduction Discourses by T. Santini, A. Klein, Stella, l'amie de Maimie, and Butterfly Asian and Migrant Sex Worker Support Network.
2. What was one surprising fact you learned from this document?
3. What other organizations in Canada support sex work from a harm reduction perspective?

When we use an intersectional lens in harm reduction programming for women, addressing some of the topics above, we recognize women's unique needs. Women who inject substances engage in practices like injecting in less visible areas on their body, to conceal their use from peers and partners.[15] Women who use opiates, in particular fentanyl, have an increased vulnerability to violence due to the nature of the substance on the body and using in public places (i.e. passing out).[16] If women are using substances alone, due to the stigma associated with injection use, they are at an increased risk of death due to overdose.[17] Knowing these factors Social Service workers can develop programs that are supportive to women's needs. Sister Space, located in Vancouver BC, the world's first and only safe consumption site for women, trans-women, non-gender binary and femme-identified individuals.[18]

Sister Space addresses basic fundamental needs such as food (amidst entrenched poverty), temporary shelter (amidst housing insecurity), and overdose reversal (amidst an overdose crisis), as well as a reprieve from gendered and racialized violence, misogyny and punitive policing practices.[19]

15. Collins, A., Boyd, J., Czechaczek, S., Hayashi, K., & McNeil, R. (2020). (Re)shaping the self: An ethnographic study of the embodied and spatial practices of women who use drugs. *Health & Place, 63.* https://doi.org/10.1016/j.healthplace.2020.102327
16. Collins, A., Boyd, J., Czechaczek, S., Hayashi, K., & McNeil, R. (2020). (Re)shaping the self: An ethnographic study of the embodied and spatial practices of women who use drugs. *Health & Place, 63.* https://doi.org/10.1016/j.healthplace.2020.102327
17. Collins, A., Boyd, J., Czechaczek, S., Hayashi, K., & McNeil, R. (2020). (Re)shaping the self: An ethnographic study of the embodied and spatial practices of women who use drugs. *Health & Place, 63.* https://doi.org/10.1016/j.healthplace.2020.102327
18. Atira Women's Resource Society. (2021). *SisterSpace.* https://atira.bc.ca/what-we-do/program/sisterspace/
19. Collins, A., Boyd, J., Czechaczek, S., Hayashi, K., & McNeil, R. (2020). (Re)shaping the self: An ethnographic study of the

It is important to note that the stigma and fear of repercussion, particularly for those pregnant and/or parenting and/or Indigenous, remains a substantial barrier to accessing services.[20]

Food For Thought

- After reviewing SisterSpace, is there anything you would use in any program you may be involved with? Why?
- Why do you think SisterSpace is the only SCS in Canada? In the world?

When a program comes from a place of nonjudgmental service and caring, this can help build relationships. For many women, a positive relationship with a health care provider is one in which a woman feels she can be honest about herself, her substance use, and her health care issues.[21]

9.4B ACTIVITIES

1. Using an intersectional lens brainstorm a comprehensive list of services and programs for harm reduction service for women.
2. Include a rationale for each program or service.
3. Where might you access funding for your program?
4. Name your program.
5. Where would you locate your program?
6. Who are the individuals in your community who would support this program?
7. Create a marketing campaign that can address judgmental attitudes.

embodied and spatial practices of women who use drugs. *Health & Place, 63.* https://doi.org/10.1016/j.healthplace.2020.102327

20. The VANDU Women CARE Team. (2009). *Me, I'm living it: The primary health care experiences of women who use drugs in Vancouver's Downtown Eastside.* https://bccewh.bc.ca/wp-content/uploads/2012/05/2009_Me-Im-Living-It.pdf
21. Ibid.

9.5 SELF CARE

This module's self care will provide you with resources to address death. Working in harm reduction is noble work. It can also be taxing, as some people you meet may become ill and some may die, based on the rates of overdose. Understanding that death happens in the world of harm reduction is important.

Please review the following toolkit Supporting Staff with Grief: A Guide for Leaders by Vicki Lejambe, Saint Elizabeth Healthcare.

Additional Resources

- Best practice recommendations for Canadian harm reduction programs by ECATIE Canada's source for HIV and Hepatitis C information.
- Harm Reduction Fundamentals; a toolkit for service providers by ECATIE Canada's source for HIV and Hepatitis C information.
- *Canadian research initiative in substance misuse (CRISM) by* Canadian Institutes of Health Research on the Government of Canada website for research in priority areas.
- Bevel Up
  a 2007 short film by Nettie Wild hosted by the National Film Board of Canada.
- Jessica Rex on Harm Reduction in Newfoundland and Labrador, a harm reduction worker's perspective. https://screencast-o-matic.com/watch/c3QlbwVOonu
- National Harm Reduction Strategy-Canada
  by the Government of Canada
- National Overdose Response Service
  Homepage.
- Substance Use Network of the Atlantic Region (SUNAR)
  Homepage.
- Harm Reduction at ACNL

Flood: The Overdose Epidemic (Full Documentary) by First Gear Productions via Youtube.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=242#oembed-1

CHAPTER 10: HEALTH PROMOTION, PREVENTION, EARLY INTERVENTION & RECOVERY

Learning Objectives

By the end of this chapter you should be able to:

1. Describe the continuum of care
2. Understand and describe health promotion
3. Identify the role of health promotion in relation to substance use disorders
4. Describe the importance of prevention initiatives
5. Describe recovery
6. Describe models of recovery for clients
7. List measures that may help support an individual in recovery

10.1 OVERVIEW

In this chapter, we will explore health promotion, substance use prevention and recovery. In Nova Scotia, health and wellness services that focus on substance use are provided in one of the four areas: "health promotion, addiction [substance use] prevention, early intervention, and treatment".[1] We explored treatment in Chapter 8, we will explore these new themes as well as recovery by breaking down each one of these concepts.

HEALTH PROMOTION

Health promotion in Canada is more that just promoting health through eating well or exercising. The concept of health promotion has evolved and for Social Service workers, health promotion aims at "the promotion of changes in lifestyle and environmental conditions to facilitate the development of a culture of health.[2] In the field of substance use, health promotion can be used as part of the social determinants of health, examining societal and systemic issues along with individual issues.

SUBSTANCE USE PREVENTION AND EARLY INTERVENTION

Prevention activities are meant to prevent substance use or a behavioural issue from occurring. Early intervention focuses on programming that target specific groups of individuals once they have begun using, before use becomes a substance use disorder.

RECOVERY

Recovery focus on supporting individuals once they have addressed their substance use and recovery is unique each person and includes different resources and different pathways for each individual.[3] Recovery programs and supports focus on helping individuals live productively.

READ

1. Government of Nova Scotia. (2021). *Health and wellness initiatives, programs, and services,* (para. 1). https://novascotia.ca/dhw/programs-and-services.asp
2. Pan American Health Organization. (2002). *Public health in the Americas,* (p. 67). Technical publication no. 589. Pan American Health Organization. here.
3. Canadian Centre on Substance Use and Addiction. (2017). *Life in recovery from addiction in Canada: A technical report.* https://www.ccsa.ca/sites/default/files/2019-04/CCSA-Life-in-Recovery-from-Addiction-Report-2017-en.pdf

Please review the following series on substance use prevention and health promotion[4] by the Canadian Centre on Substance Use and Addiction to learn more.

4. Canadian Centre on Substance Use and Addiction. (2019). *Substance use prevention and promotion*. https://www.ccsa.ca/sites/default/files/2019-04/CCSA-Substance-Use-Prevention-Health-Promotion-Toolkit-2014-en.pdf

10.2 HEALTH PROMOTION

Food For Thought

- If you had to describe health, how would you describe it? When you add the word good or poor in front, does your definition change?

Health promotion addresses health inequities by looking at the social determinants of health and the impact of policy development that shapes health. [1] How can we use health promotion for people/communities impacted by substance use? "Health promotion in the substance use field works at a broader level than substance use prevention, with the aim of strengthening health, well-being and resiliency, reducing stigma, and addressing the root causes of harmful behaviours".[2] This could be through affordable housing initiatives, playground development, school-based nutrition programs and more. Health promotion benefits individuals as well as communities and can be a strategy for supporting both people who use substances and people with a substance use disorder.

Watch the video *An Introduction to Health Promotion and the Ottawa Charter.*[3]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=249#oembed-1

10.2A ACTIVITIES

1. Look up health promotion activities in your community that target the determinants of

1. Rootman, I., Pederson, A., Frohlich, K. L., & Dupéré, S. (2018). *Health promotion in Canada: New perspectives on theory, practice, policy, and research, 4th ed*. Canadian Scholars.
2. Canadian Centre on Substance Use and Addiction. (2014). *Substance use prevention and health promotion,* (p. 1). https://www.ccsa.ca/substance-use-prevention-and-health-promotion-essentials-series
3. Let's Learn Public Health. (2017). *An introduction to health promotion and the Ottawa charter.* https://www.youtube.com/watch?v=G2quVLcJVBk

health. What did you find?

2. What are the activities focused on? (Do they target a specific health outcome?)
3. Who are the activities for? (Do they target a specific audience?).
4. Are the activities inclusive? How?

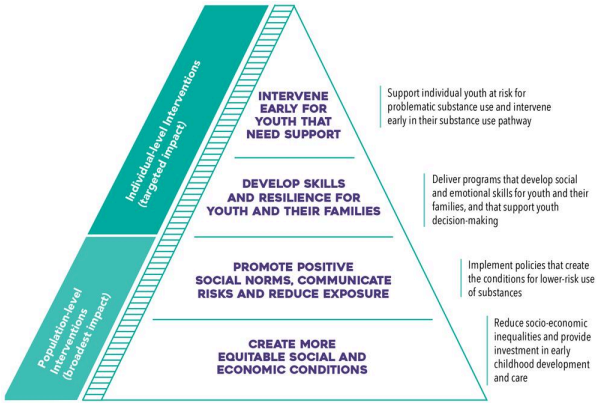
Health promotion programs look broadly at communities and societies; health promotion programs may target individuals or communities. For example, harm reduction programs are part of a robust health promotion strategy to support individuals who use substances.

10.2B ACTIVITIES

1. Review the Health Promotion and Substance Use Toolkit Health Promotion and Substance Use Toolkit
2. What are the primary goals?
3. Create a health promotion infographic that targets substance abuse for a particular community based on the social determinants of health. Include a two-page paper (500 words) with research into why this is an issue for this group.

10.3 PREVENTION AND EARLY INTERVENTION

Addiction prevention and early intervention are important to reduce substance use and substance use disorders in Canada.



Public health interventions for the prevention of problematic substance use in youth. Credit: Government of Canada. Long Description.

Recognized as an important pillar of the continuum of health, "part of Health Canada's role is to increase awareness among youth of the dangers of experimenting with illicit drugs, and to assist parents in keeping their kids drug-free".[1]

EXAMPLE

Here is an example from Western Health, in Newfoundland and Labrador : Mental Health Promotion & Substance Use Prevention School Health Promotion Resources. [2]

There are many prevention programs that focus on preventing substance use and substance use disorders. Some programs focus on substance specific prevention like alcohol, cannabis, and opioids. Other programs aim to prevent specific types of use, for example inhalation versus injection use. Some programs are specific for vulnerable groups based on age, gender, and ethnicity,

1. Government of Canada. (2016) *Drug prevention,* (para. 2). https://www.canada.ca/en/health-canada/services/health-concerns/drug-prevention-treatment.html
2. Western Health. (2021). *Mental health promotion & substance use prevention school health promotion resources: Primary: Kindergarten to Grade 3.* https://westernhealth.nl.ca/uploads/Addictions%20Prevention%20and%20Mental%20Health%20Promotion/School%20Health%20Promotion%20%20Primary%20K-3.pdf

as well as factors like mental health, while others focus on community and society. There are a variety of factors, both risk and protective elements, which exist within each of these contexts. For programs to be effective, as we have discussed in previous chapters, they must look beyond the substance use to the intersections with health. Researchers suggest a mix of prevention interventions is required to address substance use disorders in communities and societies.

Prevention programs should consider comprehensive solutions that fit the needs of their communities and population, within a gender and cultural context and taking into consideration unique local circumstances, including community readiness. Some interventions may be evidence-based, while others may document their effectiveness based on other sources of information and empirical data.

10.3A ACTIVITIES

1. Brainstorm a list of prevention programs you have seen/heard/participated in to prevent substance use.
2. Which programs focused on health promotion?
3. Which programs focused on the social determinants of health?
4. Which programs targeted harm reduction?

Many programs in Canada are focused on preventing substance use as well as preventing use from becoming a disorder. These programs typically focus on age, and more specifically youth.

SUBSTANCE USE AND YOUTH

The early use of substances increases a person's chances of developing a disorder as substance use often begins in adolescence.[3] Young people aged 15 to 24 are more likely to experience mental illness and/or substance use disorders than any other age group.[4] The risk of substance use increases greatly during times of transition. For a youth, developmental stages may result in higher risk-taking behaviour.[5] A certain amount of risk-taking is a normal part of adolescent development; the desire to try new things and become more independent is healthy but it may also increase the risk of

3. Schulte, M. T., & Hser, Y. I. (2014). Substance use and associated health conditions throughout the lifespan. *Public Health Reviews, 35*(2).https://doi.org/10.1007/BF03391702
4. Statistics Canada. (2015). *Mental and substance use disorders in Canada.* https://www150.statcan.gc.ca/n1/pub/82-624-x/2013001/article/11855-eng.htm
5. Schulte, M. T., & Hser, Y. I. (2014). Substance use and associated health conditions throughout the lifespan. *Public Health Reviews, 35*(2).https://doi.org/10.1007/BF03391702

experimentation. The parts of the brain that control judgment and decision-making do not fully develop until people are in their early or mid-20s.[6]

When youth enter high school, research suggests youth encounter greater availability of substances.[7] According to the Canadian Centre on Substance Use and Addiction,[8] approximately 62.3% of youth aged 15-17 engaged in early use of alcohol and 29.2% in early cannabis use over a year period. The research indicated that "among those under age 20, smokers were 14 times more likely to consume alcohol than were their non-smoking peers and were also more likely to engage in binge drinking (five or more drinks on one occasion)".[9]

Using substances at an early age has more potential to disrupt brain function in areas critical to motivation, memory, learning, judgment, and behavior control.[10] Studies also show the harms associated with early substance use include death by overdose and car accidents.[11] Preventing early use of substances may reduce the number of people who develop a substance use disorder, and it may also reduce early mortality. Data from Public Safety Canada,[12] found that childhood physical abuse is a strong predictor of substance use and those who are abused are more likely to develop a substance use disorder. Researchers, community advocates, and agencies have developed numerous interventions to address risk and protective factors for substance use. Each program may or may not work depending on the audience, the location, and the strategy. Public Safety Canada[13] has suggested each program must be tailored towards the audience as there is no one-size fits all when it comes to prevention programs.

10.3B ACTIVITIES

1. Choose 1 of the following youth intervention programs.
    - National Youth Solvent Abuse Program
    - Positive Choices: A Better Future

6. Winters, K. C., & Arria, A. (2011). Adolescent brain development and drugs. *The Prevention Researcher, 18*(2), 21–24. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3399589/
7. Dalhousie University. (2013). *Student drug use survey: 2012.* Communication Nova Scotia. https://novascotia.ca/dhw/publications/Student-Drug-Use-Survey-Report.pdf
8. Canadian Centre on Substance Use and Addiction. (2005). *Canadian addiction survey (CAS): A national survey of Canadians' use of alcohol and other drugs: Prevalence of use and related harms: detailed report.* https://www.ccsa.ca/canadian-addiction-survey-cas-national-survey-canadians-use-alcohol-and-other-drugs-prevalence-0
9. Ibid, p. 24
10. Winters, K. C., & Arria, A. (2011). Adolescent brain development and drugs. *The Prevention Researcher, 18*(2), 21–24. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3399589/
11. Schulte, M. T., & Hser, Y. I. (2014). Substance use and associated health conditions throughout the lifespan. *Public Health Reviews, 35*(2).https://doi.org/10.1007/BF03391702
12. Public Safety Canada. (2018). *School-based drug abuse prevention: Promising and successful programs*. https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/sclbsd-drgbs/index-en.aspx#ftn34
13. Ibid.

- preventing-problematic-substance-use-youth

2. What factors does this program address?
3. How does this intervention include health promotion/social determinants of health?
4. What is one change you would make to this intervention? Why?

PREVENTION PROGRAMS

Prevention programs funded in Canada work towards "increasing awareness and knowledge about the risks of problematic substance use and reducing the desire and willingness to obtain and use drugs".[14]

Prevention programs can focus on not only helping individuals develop the knowledge, attitudes, and skills they need to make good choices but address the larger systemic issues that impact their ability to understand the choices they make, focusing on risk reduction and health promotion[15]. The programs are designed for various ages and can be used in individual or group settings, such as the school and home. Examples of a prevention program includes the Nova Scotia Municipal Alcohol Policy.[16]

EARLY INTERVENTION PROGRAMS IN CANADA

As information about substance use and substance abuse disorders grows, so have intervention strategies. The "Just Say No" Campaign and other programs focusing on how to refuse substances failed to address the determinants of health and their connection to substance use and abuse. Programs today focus on not only helping individuals develop the knowledge, attitudes, and skills they need to make good choices but address the larger systemic issues that impact their ability to understand the choices they make. For example, the Canadian Drugs and Substances Strategy includes prevention, treatment, harm reduction, evidence and enforcement, as well as funding for these initiatives.[17]

Two examples of early intervention programs in Canada include Project SUCCESS (Schools Using

14. Government of Canada. (2019). *Canadian drugs and substances strategy*. https://www.canada.ca/en/health-canada/services/substance-use/canadian-drugs-substances-strategy.html?utm_source=vanity_url&utm_medium=url_en&utm_content=redirect_justice_nationalantidrugstrategy.gc.ca&utm_campaign=pidu_14/index.html
15. Government of Canada. (2018). The Chief Public Health Officer's report on the state of public health in Canada 2018: Preventing problematic substance use in youth. https://www.canada.ca/en/public-health/corporate/publications/chief-public-health-officer-reports-state-public-health-canada/2018-preventing-problematic-substance-use-youth.html
16. Canadian Centre on Substance Use and Addiction. (2017). *The Nova Scotia municipal alcohol project.* https://ccsa.ca/sites/default/files/2019-04/CCSA-Municipal-Alcohol-Policy-Nova-Scotia-2017-en.pdf
17. Government of Canada. (2019). *Canadian drugs and substances strategy*. https://www.canada.ca/en/health-canada/services/substance-use/canadian-drugs-substances-strategy.html?utm_source=vanity_url&utm_medium=url_en&utm_content=redirect_justice_nationalantidrugstrategy.gc.ca&utm_campaign=pidu_14/index.html

Coordinated Community Efforts to Strengthen Students)[18] and ALERT.[19] These programs focus on various intervention levels, including working with youth who have experimented with substances to those who are using substances more frequently. Using evidence to develop programs is essential for success. Please review Canada's evidence base to view how programs gather data.

For diverse populations to benefit from prevention and early intervention programs, culture, gender, ability, and language must be considered at every step when developing and then implementing these programs.

Review your learning here.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.nscc.ca/substanceuse/?p=252#h5p-41

IMAGE CREDITS

Public health interventions for the prevention of problematic substance use in youth from: Government of Canada. (2018). *The Chief Public Health Officer's report on the state of public health in Canada 2018: Preventing problematic substance use in youth.* https://www.canada.ca/en/public-health/corporate/publications/chief-public-health-officer-reports-state-public-health-canada/2018-preventing-problematic-substance-use-youth.html

18. Conduent. (2021). *Project SUCCESS*. https://cdc.thehcn.net/promisepractice/index/view?pid=3860
19. Tucker, J. S., Ellickson, P. L., Klein, D. J., McCaffrey, D. F., Ghosh-Dastidar, B. & Longshore, L. (2004). *Classroom drug prevention works: But left unchecked, early substance use haunts older teens and young adults*. RAND Corporation. https://www.rand.org/pubs/research_briefs/RB4560.html.

10.4 RECOVERY

"Although I have had many personal successes, I am most proud of myself as a parent. My children are the first, in four generations of women, to not see their parents use drugs or alcohol. I have raised two successful university educated sons who are well on their way to [an] addiction free life, God willing!".[1]

Approximately 21% of the population in Canada (about 6 million people) will meet the criteria for addiction in their lifetime.[2] Can people who live with a substance abuse disorder recover? What is recovery? Recovery is more than simply stopping uncontrolled substance use, but rather is often defined as improvements in health, wellbeing, and social participation, or "living a productive life".[3] Substance abuse disorders are treatable disorders. Research on the science of addiction and the treatment of substance use disorders has led to the development of research-based methods that help people to stop using substances, also known as being in *recovery.* Recovery, however, is not a cure. Like other chronic diseases such as heart disease or asthma, treatment for substance use disorder is just that, treatment. Treatment enables people to manage/mitigate the substance abuse disorder's impacts on their brain, body, and behavior.

10.4A ACTIVITIES

1. What are the suggestions for recovery?
2. Review the infographic *Life in recovery Recovery* created by the Canadian Centre on Substance Use and Addiction.

1. Canadian Centre on Substance Use and Addiction. (2017a). *Life in recovery from addiction in Canada: Technical report,* (p. 41). https://www.ccsa.ca/sites/default/files/2019-04/CCSA-Life-in-Recovery-from-Addiction-Report-2017-en.pdf
2. Statistics Canada. (2015). *Mental health and substance use disorders in Canada.* https://www150.statcan.gc.ca/n1/pub/82-624-x/2013001/article/11855-eng.htm
3. McQuaid, R. J., Jesseman, R., & Rush, B. (2018). Examining barriers as risk factors for relapse: A focus on the Canadian treatment and recovery system of care. *The Canadian Journal of Addiction, 9*(3), 5–12. https://doi.org/10.1097/CXA.0000000000000022

Watch the video *Changing the Stigmatizing Language of Addiction to Support Recovery created by Canadian Centre on Substance Use and Addiction.*[4]

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=255#oembed-1

Recovery is a bumpy road. It can be paved with lapses and relapses, there may be many starts and stops. It is very important that all attempts at recovery be supported. Individuals should have the

FURTHER READING

To learn more about recovery, please review Life in Recoveryf rom Addiction in Canada, a 2017 technical report from the Canadian Centre on Substance Use and Addiction.

4. Canadian Centre on Substance Use and Addiction. (2017b). Changing the stigmatizing language of addiction to support recovery. [Video]. Youtube. https://www.youtube.com/watch?v=CHsZ-KSHbcE

10.5 SELF CARE

This module's self care builds on our learning about trauma, through a trauma-sensitive mindfulness. Dr. David Treleaven suggests knowing people may have experienced trauma can make mindfulness even more powerful.

READ & LISTEN

Please review David Trelevan's website and choose one of the podcasts to learn more about trauma, mindfulness and the topic of your choice.

ADDITIONAL RESOURCES

Fatherhood, addiction and recovery: an Indigenous man's story from Canada's Yellowknife by PBS Newshour via Youtube.

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://pressbooks.nscc.ca/substanceuse/?p=259#oembed-1

- Life In Recovery from Addiction
  Technical Report by the Canadian Centre on Substance Use and Addiction.
- Families for Addiction Recovery Canada.
  Contact information.

https://www.farcanada.org/family-support/support-yourself/

VERSION HISTORY

This is the first version of Exploring Substance Use in Canada.

The following chapters were adapted from the open textbook Drugs, Health & Behavior by Jacqueline Schwab licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. Chapter content has been updated and revised with the addition of Canadian content.

NSCC Unit	Work Adapted	Original Content
Unit 1		**By Julie Crouse**
2.1		**By Julie Crouse**
2.2	**Unit 6.1, 6.2 Drugs, Health & Behavior**	**Updated with Canadian Content.**
2.3	**Unit 5.2 Drugs, Health & Behaviour**	**Updated with Canadian Content.**
3.1	**8.8 Psychoactive Drugs in Human Biology**	**Updated with Canadian Content.**
3.2	**Unit 3.2 Drugs, Health & Behavior**	
3.3	**Unit 3.3 Drugs, Health & Behavior**	
3.4	**Unit 3.4 Drugs, Health & Behavior**	
3.5	**Unit 3.4 Drugs, Health & Behavior**	
3.6	**Unit 3.6 Drugs, Health & Behavior**	
3.7	**Unit 3.7 Drugs, Health & Behavior**	
3.8	**Unit 3.8 Drugs, Health & Behavior**	
3.9	**Unit 3.9 Drugs, Health & Behavior**	
3.10	**Unit 4.1 Drugs, Health & Behavior**	
3.11	**Unit 4.1 Drugs, Health & Behavior**	
3.12	**Unit 3.10 Drugs, Health & Behavior**	
3.13	**Expressive writing prompts by Duke University**	
4.2	**Unit 2.1 Drugs, Health & Behavior**	
4.3	**Unit 2.3 Drugs, Health & Behavior**	
4.4	**Unit 2.2 Drugs, Health & Behavior**	
4.5	**Unit 2.3 Drugs, Health & Behavior**	
8.2-chart-principles of effective treatment	**Unit 6.4 Drugs, health & behaviour**	
10.3	**Unit 7.3 Drugs, health and behaviour**	

LONG DESCRIPTION

1.3 CHANGING THE LANGUAGE OF "ADDICTION"

Stigmatizing Words Fact Sheet by the Canadian Centre on Substance Abuse.

Stigmatizing words are common in our day-to-day language and are a barrier to treatment and recovery from substance use disorders. What you say "Abuser; Drug habit; Addict; Drug user." What people hear "It's my fault; It's my choice; There's no hope; I'm a criminal." By choosing alternate language, you can help break down the negative stereotypes associated with substance use. Instead of "Abuser; Addict; Drug habit; Former or reformed addicted," Try "Person with a substance use disorder; regular substance use, substance use disorder, person in recovery or long-term recovery. "Think before you speak. because all walks of life are affected by our words. Join the Conversation #AllWalksofLife Logo: "Canadian Centre on Substance Use and Addiction." Evidence. Engagement. Impact.

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1.4 RACE, STIGMA AND SUBSTANCE USE

Flow chart on how colonialism leads to addiction by First Nations Health Authority

Colonialism [has led to]

- **Residential schools**
    - **Fear & shame**
    - **Isolation**
    - **Helplessness**
- **The 60's Scoop**
    - **Detachment**
    - **Loss of identity**
    - **Loss of rights**
- **Land theft**
    - **Poverty**
    - **Lack of housing**
    - **Loss of freedom**

[Have led to]

Trauma/Grief/Loss/Stress

Addiction

- **Drugs**
- **Alcohol**
- **Pain**
- **Gambling**
- **Sex**
- **Exercise**
- **Food**
- **Work**
- **Caffeine**
- **Phone/Tech**

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Flow chart on how community leads to connection by First Nations Health Authority

Community [has led to]

- **Family & friends**
    - **Love**
    - **Inclusion**
    - **Purpose**
- **Culture & tradition**
    - **Identity**
    - **Power**
    - **Attachment**
- **Nation & territory**
    - **Stability**
    - **Relationships**
    - **Autonomy**

[Have led to]

Healing/Joy/Bonding/Peace

Connection

- **Safety**
- **Love**
- **Creativity**
- **Empowerment**
- **Contribution**

- **Purpose**
- **Responsibility**
- **Generosity**
- **Emotions**
- **Integrity**

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3.1 OVERVIEW

Controlled Drugs and Substances Act by the Government of Canada Legislation
Controlled Drugs and Substances Act
S.C. 1996, c. 19
Assented to 1996-06-20
An Act respecting the control of certain drugs, their precursors and other substances and to amend certain other Acts and repeal the Narcotic Control Act in consequence thereof Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:
Short Title
Short title
1. This Act may be cited as the Controlled Drugs and Substances Act.
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3.2 OPIOIDS (AN OVERVIEW)

Opioid- and stimulant-related harms in Canada by the Government of Canada
Number and rates (per 100, 000 population) of total apparent opioid toxicity deaths by province and territory in 2021 (Jan to Mar).

- **Canada 1, 772 number of deaths**
- **British Columbia 517 number of deaths Includes deaths related to all illicit drugs including, but not limited to, opIoids**
- **Alberta 353 number of deaths**
- **Saskatchewan 49 number of deaths**
- **Manitoba N/A number of deaths**
- **Ontario 722 number of deaths**
- **Quebec 99**
- **number of deaths Includes deaths related to all illicit drugs including, but not limited to, opIoids**
- **New Brunswick 7 number of deaths**
- **Nova Scotia 13 number of deaths**
- **Prince Edward Island 1 number of deaths**

- **Newfoundland and Labrador 5 number of deaths**
- **Yukon 5 number of deaths**
- **Northwest Territories 1 number of deaths**
- **Nunavut suppressed number of deaths**

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Program Overview [Infographic] by NS Take Home Naloxone Program

Program Overview

September 2017-September 2019

1-Minute Snapshot

The Take Home Naloxone Program has had a successful debut, with high uptake, positive feedback and evidence of saving lives.

"The THN Program opens the door for connections to take place so that people living with substance use disorder feel like someone is in their corner, helping and caring about them!'
– Anonymous

Quick Stats

kits distributed by pharmacies 5, 396
of kits distr., other than pharmacies 4, 000+
# of people trained by THN program 2, 642
# of used kits reported to program 71
average # of used kits reported/month 3
% trainees that are service providers 60%
% of trainees who have witnessed overdose 30%
# of total website page views since launch 18.9K

Key Interviews

Themes that emerged from targeted interviews with first responders were:

- **Access**
- **Education.**
- **Stigma, and**
- **Scope of Practice**

All individuals interviewed agreed that the program was helping to save lives. Conversations about naloxone and harm reduction present opportunities to address stigma around opioid use and people who use substances, and contribute to an improved public image of acute care providers and pharmacists.

Where kits were used, by region

Western Zone

- **1% Shelburne County**
- **1% Kings County**

Northern Zone

- **4% Cumberland County**
- **6% Colchester County**
- **3% Pictou County**

Eastern Zone

- **17% Cape Breton Regional Municipality**
- **1% Richmond County**

Central Zone

- **28% Halifax Regional Municipality**

[Other Stats]

- **No Answer 28%**
- **Other Counties 4%**
- **First Nations 3%**
- **Unknown 1%**
- **Prefer not to say 1%**

"I would recommend naloxone to another"

- **Strongly Agree, 91%**
- **Agree, 2%**
- **Strongly Disagree,** 7%

"I felt better knowing that naloxone was available, since you never know when you can save a life from an
overdose."
– Anonymous
Return to chapter

ADDITIONAL RESOURCES CHAPTER 3

The Sacred Traditional Tobacco for Healthy Native Communities infographic by the National Native Network.

Sacred Traditional Tobacco for Healthy Native Communities

A Balanced Community for Health

- **Tribal leadership support & engagement**
- **Cultural connectedness & healing**
- **Community engagement**
- **Youth leadership & youth-led advocacy**

Dance Grounds: Use only traditional tobacco. Do not allow cigarette smoking.

Community Centre: Enact tribal ordinance that disallows harmful tobacco use inside building and 25 feet outside building. Encourage traditional tobacco for gifts and offerings at ceremonies and events.

Tribal Council and Government Center: Enact tribal tobacco policies that will improve community health. Prioritize and support positive community health initiatives.

Tribal Clinic: Provide direct support to quit with culturally specific cessation.

Retail/Convenience Store: Eliminate sale of flavored tobacco and e-cigarette products Limit marketing of commercial ensure youth do not have access.

Native Language Camp: Engage community with knowledge of cultural practices for traditional tobacco use.

Community Tobacco Garden: Grow traditional tobacco and provide education for community members.

Signage: Use signage to promote traditional American Indian cultural values around tobacco and solutions.

School: Incorporate traditional tobacco knowledge and practices into education.

Logo: "American Indian Cancer Foundation."

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4.2 ROUTES OF ADMINISTRATION

Drug Delivery Methods by Genetic Science Learning Center.

Rapid drug delivery changes these brain regions, altering gene expression and neural circuitry in a way that could accelerate the transition to addiction.

1. **This brain region is affected during both the smoking and snorting of a drug.**
2. **These three brain regions are less affected during the snorting of a drug.**

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4.5 THE IMPACT OF SUBSTANCES ON THE BRAIN

The Structures of Neurotransmitters by Compound Interest

The Structures of Neurotransmitters

Adrenaline

- **Fight or flight neurotransmitter**
- **Produced in stressful or exciting situations. Increases heart rate & blood flow, leading to a physical boost & heightened awareness.**

Noradrenaline

- **Concentration neurotransmitter**
- **Affects attention & responding actions in the brain, & involved in fight or flight response. Contracts blood vessels, increasing blood flow.**

Dopamine

- **Pleasure neurotransmitter**
- **Feelings of pleasure, and also addiction, movement, and motivation. People repeat behaviours that lead to dopamine release.**

Serotonin

- **Mood neurotransmitter**
- **Contributes to well-being & happiness; helps sleep cycle & digestive system regulation. Affected by exercise & light exposure.**

Gaba

- **Calming neurotransmitter**
- **Calms firing nerves in CNS. High levels improve focus; low levels cause anxiety. Also contributes to motor control & vision.**

Acetylcholine

- **Learning Neurotransmitter**
- **Involved in thought, learning, & memory. Activates muscle action in the body. Also associated with attention and awakening.**

Endorphins

- **Euphoria neurotransmitters**
- **released during exercise, excitement, & sex, producing well-being & euphoria, reducing pain. Biologically active section shown.**

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5.3 COMPULSIVE EATING, SEXUAL BEHAVIOURS, & INTERNET USE

Maslow's Hierarchy of Needs, Simplified by Androidmarsexpress
[Bottom to Top]
Physiological needs: food, water, warmth, rest (basic needs)
Safety needs: security, safety (basic needs)
Belongingness & love needs: intimate relationships, friends (psychological needs)
Esteem needs: prestige, feeling of accomplishment (psychological needs)
Self-actualisation: achieving one's full potential, including creative activities (self-fulfillment needs)
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7.1 OVERVIEW

Opioid deaths map of Canada by Public Health Agency of Canada
Number and rates (per 100, 000 population) of total apparent opioid toxicity deaths by province and territory in 2021 (Jan to Mar).

- **Canada 1, 772 number of deaths**
- **British Columbia 517 number of deaths Includes deaths related to all illicit drugs including, but not limited to, opIoids**
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- **Yukon 5 number of deaths**
- **Northwest Territories 1 number of deaths**
- **Nunavut suppressed number of deaths**

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Key developments since Portugal decriminalized drugs in 2001 by Statista

Then & Now Portugal's Drug Decriminalization
Key developments since Portugal decriminalized drugs in 2001

Overdose deaths

1999 369
2016 30

New HIV diagnoses due to injecting

2000 907
2017 18

Number of people incarcerated for drug offences

1999 3, 863
2017 1, 140
Sources: TheLancet, drugpolicy.org, EMCDDA, VHPA
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7.3 THE "WAR ON DRUGS"

Drug War in Canada infographic by Canadian Centre for Addictions.

Drug War in CANADA

If one were attempting to list the worst policy blunders of the past century, the War on Drugs would be somewhere between Vietnam and Prohibition. Even Stephen Harder, a virulent opponent of decriminalizing drugs, conceded as much in 2012, saying, "the current approach is not working." Canada's drug policy has received attention recently, with Justin Trudeau's pot admission and Peter MacKay's consideration of ticketing options for marijuana possession. While ending the trillion-dollar boondoggle that is the War on Drugs gains momentum in the United States, Canada is moving in the opposite direction, however, with a war on drugs-lite. Like most things Canadian, it is less extreme that its U.S. counterpart, but its existence should unsettle all Canadians. Illicit drug sales are still somewhere between $7 billion and $10 billion a year while law enforcement costs are over $2 billion annually. The combined value of these expenditures is greater than Canada spends on First Nation health services, veterans' health care, health research, and public health programs, combined. On the streets, possession of hard drugs has increased by 89 per cent over the last ten years. Passed in 2011, increased existing mandatory minimum sentences for drugs, doubled the maximum penalty for manufacturing Schedule II drugs like marijuana, and failed to include a legislative exception for mental illness and other extenuating circumstances.

Arrests:

- **103, 757 Drug offences in Canada in 2014**
- **57, 314 For Cannabis possession**
- **10, 696 For trafficking/production/distribution**

Convictions:

- **43% of cannabis possession charges resulted in convictions**
- **16% of adult convictions for marijuana possession resulted in custody sentence**
- **19% Canadians used marijuana or cannabis in the past year**
- **24% will use it once it's legal**

The Canadian government spends more than $50 billion annually policing its citizens' drug habits, spending three times as much on each inmate as it does on each student. Canada's War on Drugs also extends deep into South America where Ottawa has joined Washington's failed military campaigns to dismantle drug cartels. Canada has a presence in Colombia, Belize, and Brazil, as well as the Central American states, where Ottawa is giving aid and training troops. In 2012, Stephen Harper announced the Canada Initiative for Security in Central America (CISCA), a $25 million program in Latin America.

Logo: "Canadian Centre for Addictions."

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8.3 INDIGENOUS APPROACHES

Common Cultural Interventions by Canadian Institute of Health Research

Common Cultural Interventions

- **Fasting ceremony**
- **Naming ceremony**
- **Talking circle**
- **Tell Creation Story**
- **Dancing**
- **Storytelling**
- **Elders**
- **Feast for our ancestors/loved ones who have gone on**
- **Medicine people/traditional practitioners**
- **Use of natural foods/medicines**
- **Hunting/fishing/hide making**
- **Cleansing/sweat lodge ceremony**
- **Prayer**
- **Singing**
- **Social/cultural activities**
- **Language**

- **Land based activity**
- **Dream interpretation**
- **Traditional teachings/education**
- **Ceremonial practice (unspecified)**
- **Give away dances/ceremony**
- **Use of cultural instruments**

Common interventions specific to my community include: [blank space to answer the question yourself]

It is said that what the Great Spirit gave to his/her children to live in this physical world in a good way, was given forever. This means that the answer to addressing substance use issues exists within Indigenous culture.

Culture is the facilitator of spiritual expression. One's spirit desires to live life to the fullest. A connection to spirit is essential and primary to wellbeing. Cultural interventions are therefore essential to wellness. Cultural interventions such as ceremonies attend to the whole person, while other interventions may have more specific focus. Cultural interventions are facilitated by individuals who have sanctioning of their skills and knowledge in culture because they live the culture and have been recognized by both the cultural teachers/community and the Spirit to lead or facilitate a certain cultural activity.

However, some cultural interventions, generally those that are not ceremonial, do not require this level of expertise. An example is the use of sacred medicines for smudge, although this differs across cultures. All cultural interventions require a level of cultural competency that is in compliance with the culture of the people on that land. Critically important is to know that there is not "one" culture because culture is defined by the land, language and nation of people. Treatment centres offer culture through their treatment programs based on the culture of the people where the treatment centre is located. Clients participating in the treatment programs may experience cultural interventions different from their own culture. Cultural interventions then become an introduction to culture and are always facilitated with an encouragement to clients to "go home and find their own way".

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10.3 PREVENTION AND EARLY INTERVENTION

Public health interventions for the prevention of problematic substance use in youth by the Government of Canada

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- **Create more equitable social and economic conditions**
    - **reduce socio-economic inequalities and provide investment in early childhood development and care**
- **Promote positive social norms, communicate risks and reduce exposure**
    - **implement policies that create the conditions for lower-risk use of substances**

Population-level Interventions (broadest impact)

- **Develop skills and resilience for youth and their families**
    - **deliver programs that develop social and emotional skills for youth and their families, and that support youth decision-making**
- **Intervene early for youth that need support**
    - **support individual youth at risk for problematic substance use and intervene early in their substance use pathway**

Individual-level Interventions (targeted impact)
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