



# The Impact of COVID-19 on Rural and Remote Mental Health and Substance Use



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#### **Acknowledgments**

The Mental Health Commission of Canada (MHCC) operates primarily on the unceded traditional territory of the Anishinabe Algonquin Nation, whose presence here reaches back to time immemorial. The Algonquin people have lived on this land as keepers and defenders of the Ottawa River watershed and its tributaries. We are privileged to benefit from their long history of welcoming many nations to this beautiful territory. We also recognize the traditional lands across what is known as Canada, on which our staff and stakeholders reside.

Our policy research work uses an intersectional *sex- and gender-based plus* lens to identify, articulate, and address health and social inequities through policy action. In this respect, it is guided by engagement with diverse lived experiences (and other forms of expertise) that shape our knowledge syntheses and policy recommendations. We are committed to continuous learning, and we welcome feedback.

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# Introduction

#### **Purpose**

This policy brief provides an overview of the developing issues and unique mental health and substance use challenges that COVID-19 poses for rural and remote communities. It builds on a <u>preliminary scan</u> the Mental Health Commission of Canada (MHCC) completed at the outset of the pandemic and on an <u>evidence brief on best and promising practices</u> written just before it began. The current brief includes an updated literature review, a section on diverse populations and social determinants of health, domestic and international policy responses, and policy recommendations. Also included is a case study that highlights the British Columbia (B.C.) community of Princeton, in collaboration with the Princeton Community Health Table. Its primary audience comprises policy makers and organizations across the mental health and substance use sectors that serve rural and remote communities.

#### Key messages

- The COVID-19 pandemic continues to have a substantial impact on the mental health and substance use needs in rural and remote communities and on a growing lack of access to adequate and timely services and supports.
- The unique context, the influence of the social determinants of health, and health equity considerations play major roles in how COVID-19 affects these communities in terms of mental health and substance use.
- Provinces and territories pivoted quickly to provide innovative virtual mental health and substance
  use services. However, the lack of access to broadband internet coverage and information and
  communication technology (ICT) make it harder for people living in rural and remote communities
  to access services and supports.
- The pandemic has been a challenge on the resources, capacity, and solidarity of rural and remote communities but has reinforced the importance of resilience.
- Given the pandemic's expected long-lasting effects on mental health and substance use, the postpandemic period will be critical. It will also be an opportunity to transform the system and address unique impacts for people living in rural and remote communities.

## Background

No single definition of rural or remote exists in Canada. Because each rural and remote community is unique, they are often defined by the experience and perceptions of the individuals who live there. According to Statistics Canada, rural and remote communities include "all areas outside population centres" (Background section, para. 7). Canadian research often defines rural as "communities with a core population of less than 10,000 people, where less than 50% of the employed population commutes to larger urban centers for work" (p. 3). In light of these differences, this policy brief uses both the academic definition of rural and remote as well as the lived experience of people in these communities.

Prior to the pandemic, research on rural and remote communities found that problems related to mental health and substance use vary when compared to urban settings. 5-8 Evidence shows similar

overall rates of mental health problems but differences in terms of specific mental illnesses and patterns of substance use. 9,10 Rural and remote communities face higher rates of suicide — including suicidal ideation, attempts, and deaths — than urban settings. 11 Some rural and remote communities also report that substance use is a risk factor for suicide attempts and deaths. 12,13 People in these communities who use drugs also have different patterns of use and access to harm reduction services while facing a greater risk of poisoning, morbidity, and mortality. 14-16

Over the course of the pandemic, the distinct risks in rural and remote communities have led to more impactful outbreaks. <sup>17,18</sup> They have been at higher risk of COVID-19-related harms because, on average, they have a larger proportion of people over 65, higher burdens due to chronic illness and underlying medical conditions, and lower degrees of mobility. <sup>19-21</sup> These communities also face unique challenges across the social determinants of health, which include higher levels of income inequality, <sup>22</sup> a lack of consistent and local employment, <sup>23</sup> a seasonal and rotational way of life, <sup>24</sup> increased levels of food insecurity, <sup>25,26</sup> more limited access to clean water, <sup>27</sup> and less access to high-speed ICT. <sup>28</sup>

COVID-19 and its resulting public health measures, particularly those involving social distancing, have strained rural economies and social connections. <sup>29-32</sup> As well, the pandemic has been associated with a drug supply that is becoming increasingly toxic. <sup>33</sup> When combined with a decrease in services and increased stress on people who use drugs, this has resulted in increased drug poisonings across Canada, <sup>34</sup> with disproportionate impacts for rural and remote communities and for First Nations and Métis. <sup>35-37</sup> In conjunction with mental health and substance use services that are stretched thin, social isolation, economic stressors, and the drug crisis are expected to have greater and longer-lasting effects on mental health and substance use for rural and remote communities. <sup>38</sup>

The pandemic response in these communities has been limited, given that they have fewer health, mental health, substance use, and social resources (such as shelter, water, and nutrition). <sup>39-41</sup> The pandemic has exacerbated pre-existing gaps in access to mental health and substance use services and has added to already persistent shortages in the number of service providers. <sup>42-45</sup> These access gaps include specialized mental health services, many in-person harm reduction services and supports, and other substance use treatment services, including opioid agonist treatment. <sup>46</sup> Several in-person services and supports (e.g., peer support) have also moved to virtual platforms, which face particular limitations in rural and remote communities.

Many of these communities have lacked access to personal protective equipment (PPE) and other public health resources. <sup>47</sup> These shortages have been especially challenging because there are often very few service providers. Those that are available have large caseloads among people who are both suffering and not suffering from COVID-19. Moreover, rural and remote catchment areas frequently span large geographic areas that may have been impacted by travel restrictions within and between jurisdictions. <sup>48</sup> Although federal, provincial, and territorial governments have attempted to prioritize rural and remote communities for the provision of PPE, vaccines, and other resources, the rollout of this relief has been slow, and initially it left many without access. <sup>49-51</sup>

As an example of the pandemic's impact on mental health and substance use in a rural community, the following case study describes a grassroots initiative undertaken by the community health table in Princeton, B.C.

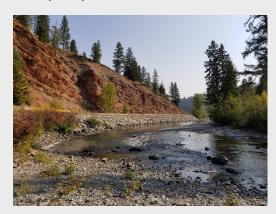
#### **Case Study: Princeton Community Health Table**

#### **Description of the community**

Princeton is a beautiful town, situated in the Similkameen Valley and surrounded by mountains, as seen in the pictures below. <sup>52</sup> Among the 4,780 people who live there, the majority are 50 and older. Over 10 per cent of the population identifies as Indigenous. While the mean income is \$57,000, eight in 10 residents fall below the poverty line. Mental health and substance use have both been identified as significant concerns. The rates of anxiety, mood disorders, and depression are eight times as high as those in the rest of the province, and like many rural communities in B.C., the community suffers disproportionately from the toxic drug crisis and consistently has one of the highest drug-related death rates per capita. <sup>53</sup> Over the past year, these high rates of mental health and substance use have been further exacerbated by the COVID-19 pandemic.

Like other rural communities, Princeton has more limited resources for addressing mental health and substance use concerns than urban settings. <sup>54</sup> Currently, it has one mental health and substance use counsellor, one mental health adult psychiatric nurse, one youth mental health worker, and one outreach worker (shared with another town about 45 minutes away). These limits make it difficult for the community to provide services and supports that are adequate for the population's needs. Another concern is the ability to retain staff, which is common in rural settings.

Despite these challenges Princeton has many strengths, which include the high level of resilience common to rural communities and the many people and organizations who work together to address the needs of community members. One such initiative is the Princeton Community Health Table (PCHT).







#### **Development of the PCHT**

The PCHT was formed in June 2020 as part of the BC Rural and First Nations Health and Wellness Summit, sponsored by the Rural Coordination Centre of BC and the First Nations Health Authority. At the summit, partners came together to discuss and plan for health services delivery in Princeton and surrounding areas. The PCHT identified mental health and substance use as priorities for the health and wellness of the community. The group began with eight members representing various partner groups, including community members, providers, policy makers, and academic partners. It decided to continue to meet after the summit to plan, develop, and implement various community-based activities to promote mental health and well-being. The final makeup of the group provided a strong representation of community members who could lead this grassroots initiative to improve services and supports for the community at large.

Today, PCHT membership includes 14 people representing several organizations:

- Support Our Health Care
- Princeton and District Community Services Society
- Princeton Family Services Society
- Vermillion Forks Métis Association
- Okanagan Regional Library
- School District 58
- Princeton Secondary School
- Vermillion Forks and John Allison Elementary schools
- Town of Princeton
- Princeton Regional Hospital
- Princeton RCMP Victim Services
- Princeton Community Support
- Upper Similkameen Indian Band
- University of British Columbia, Okanagan

The PCHT meets every four to six weeks.

#### **Goals of the PCHT**

- 1. Develop a community-driven package of mental health/substance use improvements.
- 2. Study the implementation of specific enhancements to mental health/substance use service accessibility.
- 3. Evaluate the outcomes attributed to the implementation of mental health/substance use service advancements.
- 4. Sustain progress via new partnerships and existing community partnerships.
- 5. Develop a transferable and adaptable model for implementing improved mental health/substance use services in rural and remote B.C. communities.

#### **Current PCHT activities**

- 1. Increasing awareness of mental health and substance use and the available services and supports:
  - two brochures (adults and youth) that include information about local and provincial resources

- education sessions for students in the Princeton Secondary School
- Princeton Secondary School forum with Jack.org speaker
- virtual public forum on Breaking the Stigma

#### 2. Providing services and supports:

 Working in partnership with the South Okanagan Women in Need Society, a Pentictonbased agency that comes to Princeton one day each week to provide drug-testing resources and harm reduction information. Also offered is a pop-up table for health information (including COVID) and basic wound care, along with other harm reduction materials.

#### Successes and challenges

As the PCHT continues to work toward its goals, one significant success is the enthusiasm and commitment provided by its individual and organizational representatives and the new partnerships being developed. A second success has been a practicum with two fourth-year nursing students in Princeton, supported by the school of nursing at the University of British Columbia, Okanagan. These students worked half their hours with the PCHT in the community and the other half in the local hospital, contributing to various PCHT activities (e.g., the two brochures, education materials for secondary school students). Also, by connecting what was happening in acute care with what was occurring in the community, the students were able to see the importance of prevention and early intervention as a way to better serve those who live with mental health and substance use needs. A third PCHT success has been the strong partnership with the secondary school in Princeton, which enabled it to deliver education and awareness for the students. Having a student PCHT member has been key to facilitating this connection.

Alongside these successes, two main challenges remain. One is developing a strong connection, both with organizations that deliver harm reduction services and the individuals who use or may need them. The PCHT continues to build partnerships with additional organizations to explore further services and supports for this population. Funding is also a major challenge. While the PCHT has applied for numerous community-based and research funding opportunities, apart from some funding for the printing of brochures, it has had minimal success to date.

#### Conclusion

The PCHT has brought together a grassroots group of individuals and community organizations that have prioritized the mental health and substance used needs in their community. It includes a broad representation of partners who are working together to address these areas, which is particularly important in the pandemic context. Following some early successes, the PCHT continues to work on various activities and approaches to address the needs of community members. Despite some current challenges, the PCHT's commitment to improving the mental health and well-being of the Princeton community continues to be at the forefront of its work.

# **Considerations**

As the PCHT case study highlights, there are several important considerations for rural and remote communities in connection with the pandemic's impacts on mental health and substance use. This section looks at the most pertinent issues across mental health and substance use systems and at the diverse needs of rural and remote communities.

### System issues

COVID-19 has had varying and unique impacts across rural and remote communities, particularly with respect to mental health and substance use. These impacts also placed increasing pressure on already strained rural and remote mental health and substance use systems. As the pandemic progresses it is increasingly clear that, for rural and remote communities, COVID-19 is exacerbating many pre-existing issues across these systems. Even as these systems adapted to its impacts, many more issues emerged. The most pertinent are described below.

#### Stigma and help seeking

Rural and remote communities often experience higher levels of stigma, which have an impact on mental health, substance use, and rates of help seeking. For people in these communities, a perception of the increased risk of structural and social stigma or discrimination can negatively impact these rates. Members of these communities are concerned about privacy and are less likely to disclose a mental health problem and/or substance use concern or access informal sources of support. For community members who are Black, Indigenous, or new to Canada, the impact of stigma and discrimination (compounded by racism) is much greater, and it affects their ability to seek help for mental health and substance use concerns. Sugar related to mental health and substance use is particularly felt by men, especially when it comes to seeking help. For men in rural and remote communities, not only is suicide the second leading cause of preventable death, they have higher mortality rates for most of the leading causes of death.

#### The toxic drug crisis

The rising rate of opioid-related deaths across Canada has been an ongoing public health crisis for the last two decades. <sup>65,66</sup> The intersection of the pandemic with the toxic drug crisis has magnified the risk of opioid poisonings, with many communities (particularly Ontario, B.C., and Alberta) reporting record numbers of related emergency calls, hospitalizations, and deaths in 2020. <sup>67</sup> Some of the unintended consequences of COVID-19 public health measures have led to "an increasingly volatile and unregulated drug supply, barriers to accessing harm reduction services and treatment, and physical distancing requirements leading to more people using drugs alone" (p. 3). <sup>68-70</sup> These measures contributed to increased social isolation and stress at the same time that access to support networks was being restricted. <sup>71</sup> They are some of the main factors contributing to the higher incidence of opioid-related poisoning deaths across Canada during the pandemic, including in rural and remote communities.

#### Housing and homelessness

A key determinant of health for rural and remote communities is access to adequate and affordable housing. For those experiencing homelessness and precarious housing, there are increased risks for

COVID-19 complications, transmission, and impacts on mental health and substance use.<sup>72</sup> While the pandemic has led to an increase in the rate of homelessness and precarious housing across Canada, rates in rural and remote communities are equivalent to or potentially higher than those in urban areas.<sup>73-76</sup> Homeless shelters in rural and remote communities are limited in their services and availability, including the capacity to respond to the pandemic.<sup>77</sup>

#### Services and supports

Difficulty accessing primary care in rural and remote communities has continued during the pandemic.<sup>78</sup> The inability to access primary care physicians or nurse practitioners can be a barrier for mental health and substance use services and for prescribing and adjusting medications. As well, the lack of time for primary care visits and the absence of culturally relevant care can be barriers to quality care for persons with mental health and substance use concerns. The lack of access to primary care can also divert individuals to busy hospital emergency departments when there is no need for emergency services.<sup>79</sup>

In response to COVID-19, there have been innovative advances in virtual mental health and substance use services for rural and remote communities. <sup>80,81</sup> However, people who live in these communities do not often have access to adequate ICT and may need greater digital literacy. <sup>82</sup> These factors can impact their ability to access mental health and substance use services and attend remote work, school, and wellness activities. <sup>83</sup> This digital divide is further augmented by the fact that virtual care solutions are frequently developed and delivered through urban centres, making them potentially unsuitable for rural and remote residents. <sup>84</sup>

Already stretched front-line service providers in rural and remote communities have been at increased risk of being overwhelmed due to COVID-19, which can impact their well-being. These health-care providers have reported experiencing increased levels of anxiety and symptoms of post-traumatic stress while facing challenges in accessing mental health services themselves. As well, volunteers and people that provide peer support, who play a critical role in rural and remote communities, have confronted additional constraints and stress during the pandemic. At 187,88

#### Resilience of rural and remote communities

While COVID-19 may have challenged the pre-existing foundation of solidarity and resilience in rural and remote communities, the pandemic has also reinforced the importance of this foundation. <sup>89</sup> Often relying on in-person community and peer supports, these communities have had to adapt and develop new systems of resilience in the face of public health measures such as social distancing. Fostering resilience also involves investing in accessible community supports, like safe and affordable housing and clean water, and providing accessible mental health and substance use services for all. <sup>90</sup>

#### Diverse needs

Rural and remote communities are not homogeneous. People living in these communities face unique social determinants of health and health equity considerations that have an impact on mental health, substance use, and the effects of the pandemic.

#### **Diverse populations**

Many First Nations, Inuit, and Métis live in Canada's rural and remote areas and hold unique perspectives on what is needed to address the mental health and substance use impacts of the

pandemic in their communities. COVID-19 has exacerbated the impacts of systemic and institutionalized colonialism, racism, and injustice on mental wellness, while shaping disadvantages across the social determinants of health. The dual impact of the pandemic and toxic drug crisis has disproportionally impacted many First Nations and Métis, particularly in B.C., Ontario, and Alberta. <sup>91-94</sup> Solutions for this dual crisis need to come from within First Nations, Inuit, and Métis communities.

The well-being of people who immigrated to Canada and are living and working in rural and remote communities has also been disproportionately affected by COVID-19.<sup>95</sup> Among the challenges they experience are language barriers, inadequate and overcrowded housing, financial stress, and cultural barriers.<sup>96</sup> Regarding Canada's more than 50,000 foreign farm workers, media and advocacy organizations report that, during the pandemic, most were limited in their mobility and were not allowed to socially distance.<sup>97,98</sup> These organizations also report that the workplace abuse immigrant workers face has been exacerbated by the pandemic. This abuse includes

- living in substandard employer-provided housing conditions
- a lack of cleanliness and adequate protective supplies such as PPE
- working overtime without breaks or changes to income
- a lack of labour rights and protections.<sup>99</sup>

In addition, advocacy organizations report that, for immigrant workers, facing racism, workplace abuse, and insecurity can increase their anxiety and stress levels. Yet there are fewer resources available to help them access services and supports, and workers in factories and farms face greater risk of mortality from COVID-19 outbreaks.<sup>100</sup>

#### Women at risk of domestic violence

The pandemic has also led to an increase in the rate of domestic violence in rural and remote communities, which is adding pressure on rural women's shelters. <sup>101</sup> Before the pandemic, studies had found that a greater number of women were being killed through domestic violence in rural and remote communities than in urban environments. <sup>102</sup> During the pandemic, more rural and remote women's shelters across Canada reported an increase in people seeking help from domestic violence. <sup>103</sup> Yet, in the same period, 71 per cent of shelters had to reduce their capacity due to public health restrictions related to the pandemic. <sup>104</sup>

#### Lifespan dimensions

Across the lifespan, the pandemic has particularly impacted the mental wellness of youth and older adults. Prior to the COVID-19, rural and remote youth in northern Ontario were already struggling with higher rates of drug use and mental health concerns. <sup>105,106</sup> During the pandemic, many national surveys, including the MHCC's *Lockdown Life: Mental Health Impacts of COVID-19 on Youth in Canada* report, found that the mental health impacts of COVID-19 on youth have become stronger. <sup>107,108</sup> The pandemic has increased anxiety and stress and exacerbated isolation and loneliness among youth in rural and remote communities. <sup>109</sup> This is particularly true for many 2SLGBTQ+ youth, who face stigma and discrimination due to their sexual orientation and/or not conforming to heteronormative gender expectations. <sup>110</sup>

Older adults in rural and remote communities are also especially vulnerable to the impacts of the pandemic and the accompanying public health measures, as the day-to-day challenges of social isolation

are more keenly felt. <sup>111</sup> Older adults in these communities' experience disproportionate health effects from the pandemic, including more severe complications, higher mortality rates, reduced access to specialist services and hospitals, and delays in presenting for medical care. <sup>112</sup>

# Domestic and International Policy Responses: Illustrative Examples

COVID-19 has had far-reaching impacts for rural and remote communities. As a result, international efforts have sought to bring together best practices in terms of policy responses to some of the considerations and issues outlined in this report. The following points highlight such responses in Canada, the United States (U.S.), and Australia.

- WHO has advocated for placing more health-care workers in rural and remote communities, 113
   while psychiatrists internationally have recommended greater telepsychiatry training and the development of local guidelines to support practitioners during the pandemic. 114
- The Centers for Disease Control and Prevention in the U.S. have collected data, produced modelling, and implemented guidelines to address the impact of the pandemic in rural and remote communities.<sup>115</sup> The U.S. also collects data and reports on the impact of COVID-19 for African, Caribbean, and Black members of rural and remote communities.<sup>116</sup>
- The Centre for Rural and Remote Mental Health in Australia has developed *The Orange Declaration on Rural and Remote Mental Health*, which provides an opportunity for dialogue about improving mental health in these communities through research, service design, and delivery. The declaration identifies 10 key problems and offers solutions that identify new and coordinated approaches at an international level. 117
- In B.C., the Northern Health Authority has advanced a strategy for rural and remote areas. In June 2020, it published the *Northern BC Rural and Remote and First Nations COVID-19 Response Framework* "to surface and co-create innovative solutions to these challenges by bringing together policy makers, educators, health care administrators, researchers, and health professionals/service providers" (pp. 2-3). <sup>118</sup> This operational framework provides guidance on how to better meet the urgent, unique, and local health and mental health needs of First Nations and rural and remote communities.

# **Policy Recommendations**

#### Prioritize rural and remote communities and strengthen partnerships

- Develop post-pandemic policies that recognize the unique mental health and substance use impacts of COVID-19 in rural and remote communities, in partnership with diverse community members.
- 2. Strengthen partnerships between the mental health and substance use sectors and policy makers serving rural and remote communities.

#### Recognize unique strengths and vulnerabilities

- 1. Build on the strong foundation of community resilience in rural and remote communities to address the long-term impacts of COVID-19.
- 2. Address the twin pandemics of opioid poisonings and COVID-19 in post-pandemic policies for rural and remote communities.
- 3. Invest in innovative harm reduction initiatives that address rural and remote communities' unique characteristics, including the provision of more accessible substance use services.

#### Support virtual care, internet communications technology, and accessibility

- 1. Provide all rural and remote residents with adequate access to broadband internet coverage and internet communication devices to access virtual mental health and substance use services.
- 2. Tailor virtual care solutions to the unique features of life in rural and remote communities.
- 3. Train rural and remote service providers and service users (including families) on the use of virtual technology, including its use as a tool to support their collaboration.

# Conclusion

Throughout the pandemic, rural and remote communities have faced increased mental health and substance use needs as well as a lack of access to adequate and timely services and supports. The unique influence of the social determinants of health in these communities makes the people who live there more vulnerable to the mental health and substance use impacts of COVID-19. At the same time, these communities have fewer resources and less capacity to deal with them. Governments at all levels have a role to play in adopting a place-based approach to policy while supporting rural and remote communities in fostering resilience as they address the impacts of the pandemic on mental health and substance use.

Many provinces and territories have pivoted quickly by providing innovative virtual mental health and substance use services. However, this response has often been inadequate for people living in rural and remote communities, who in many cases lack access to broadband internet and sufficient ICT. Virtual care solutions must consider rural and remote contexts to be effective for the residents who need them. The pandemic has only accelerated the importance of meeting this need.

Just as the impacts of the pandemic on mental health and substance use are expected to be long lasting, the post-pandemic period will be critical for mitigating potential long-term harms. Consequently, an opportunity to focus on systemic transformation exists, one that addresses the unique mental health and substance use impacts for people living in rural and remote communities — in particular, developing initiatives and policies that foster community resilience, investing in innovative mental health services, and expanding harm reduction supports.

# References

- <sup>1</sup> Community Action Program for Children of Waterloo Region. (2005). *The rural think tank*: *Understanding issues families face living in rural and remote communities*. https://www.canada.ca/content/dam/phac-aspc/migration/phac-aspc/hp-ps/dca-dea/publications/rtt-grr-2005/pdf/rtt-grr-2005\_e.pdf
- <sup>2</sup> Petric, A., & Stoop, N. (n.d.). *The definition of rural and its implications*. http://rplc-capr.ca/wpcontent/uploads/2017/11/Stoop TheMeaningofRural-alexedit.pptx.pptx-1.pdf
- <sup>3</sup> Statistics Canada. (2016). *Population centre and rural area classification 2016*. https://www.statcan.gc.ca/eng/subjects/standard/pcrac/2016/introduction
- <sup>4</sup> MacLeod, M. L. P., Stewart, N. J., Kulig, J. C., Anguish, P., Andrews, M. E., Banner, D., Garraway, L., Hanlon, N., Karunanayake, C., Kilpatrick, K., Koren, I., Kosteniuk, J., Martin-Misener, R., Mix, N., Moffitt, P., Olynick, J., Penz, K., Sluggett, L., Van Pelt, L., . . . Zimmer, L. (2017). Nurses who work in rural and remote communities in Canada: A national survey. *Human Resources for Health*, *15*(34), Article 34. https://doi.org/10.1186/s12960-017-0209-0
- <sup>5</sup> Canadian Psychological Association. (2002). *Strengthening rural health: The contribution of the science and practice of psychology*. https://cpa.ca/docs/File/cpapadvocacyproject/rural.pdf
- <sup>6</sup> Romans, S., Cohen, M., & Forte, T. (2011). Rates of depression and anxiety in urban and rural Canada. *Social Psychiatry and Psychiatric Epidemiology*, *46*(7), 567-575. https://doi.org/10.1007/s00127-010-0222-2
- <sup>7</sup> Friesen, E. (2019). The landscape of mental health services in rural Canada. *University of Toronto Medical Journal, 96*(2), 47-52. https://utmj.org/index.php/UTMJ/article/view/1181
- <sup>8</sup> Mental Health Commission of Canada. (2020). *Rural and remote mental health in Canada: Evidence brief on best and promising practices*. https://www.mentalhealthcommission.ca/sites/default/files/2020-05/Rural remote mental health evidence brief eng.pdf
- <sup>9</sup> Pirie, T., & Simmons, M. (2014). *Cannabis use and risky behaviours and harms: A comparison of urban and rural populations in Canada*. Canadian Centre on Substance Abuse. https://www.ccsa.ca/sites/default/files/2019-04/CCSA-Cannabis-use-Risky-behaviours-and-Harms-2014-en.pdf
- <sup>10</sup> Friesen, E. (2019). The landscape of mental health services in rural Canada.
- <sup>11</sup> Barry, R., Rehm, J., de Oliveira, C., Gozdyra, P., & Kurdyak, P. (2020). Rurality and risk of suicide attempts and death by suicide among people living in four English-speaking high-income countries: A systematic review and meta-analysis. *Canadian Journal of Psychiatry*, *65*(7), 441-447. https://doi.org/10.1177/0706743720902655
- <sup>12</sup> Creighton, G., Oliffe, J. L., Ogrodniczuk, J., & Frank, B. (2017). "You've gotta be that tough crust exterior man": Depression and suicide in rural-based men. *Qualitative Health Research*, *27*(12). https://doi.org/10.1177/1049732317718148
- <sup>13</sup> D. Ward, personal communication, 2021.
- <sup>14</sup> Parker, J., Jackson, L., Dykeman, M., Gahagan, J., & Karabanow, J. (2011). Access to harm reduction services in Atlantic Canada: Implications for non-urban residents who inject drugs. *Health and Place*, *18*(2), 152-162. https://doi.org/10.1016/j.healthplace.2011.08.016
- <sup>15</sup> Fischer, B., Rudzinski, K., Ivsins, A., Gallupe, O., Patra, J., & Krajden, M. (2010). Social, health and drug use characteristics of primary crack users in three mid-sized communities in British Columbia, Canada. *Drugs: Education, Prevention and Policy*, *17*(4), 333-353. https://doi.org/10.3109/09687630903357700
- <sup>16</sup> Jozaghi, E., & Marsh, S. (2017). Missing the trends in the fentanyl overdose crisis: The need for immediate intervention in small and rural communities. *Canadian Journal of Public Health*, *108*(4), Article e457. https://doi.org/10.17269/CJPH.108.6480
- <sup>17</sup> Malatzky, C., Gillespie, J., Couch, D., & Cosgrave, C. (2020). Why place matters: A rurally-orientated analysis of COVID-19's differential impacts. *Social Sciences and Humanities Open*, *2*(1), Article 100063. https://doi.org/10.1016/j.ssaho.2020.100063
- <sup>18</sup> Centers for Disease Control and Prevention. (2020, November 20). *COVID-19 Stats: COVID-19 incidence, by urban-rural classification United States, January 22-October 31, 2020*. Morbidity and Mortality Weekly Report. https://www.cdc.gov/mmwr/volumes/69/wr/mm6946a6.htm

- <sup>19</sup> Savage, D. W., Fisher, A., Choudhury, S., Ohle, R. P., Strasser, R. P., Orkin, A., & Mago, V. (2020). Investigating the implications of COVID-19 for the rural and remote population of northern Ontario using a mathematical model. *medRxiv*. https://doi.org/10.1101/2020.09.17.20196949
- <sup>20</sup> Erwin, C., Aultman, J., Harter, T., Illes, J., & Kogan, C. J. (2020). Rural and remote communities: Unique ethical issues in the COVID-19 pandemic [Commentary]. *American Journal of Bioethics*, *20*(7), 117-120. https://doi.org/10.1080/15265161.2020.1764139
- <sup>21</sup> Savage, et al. (2020). Investigating the implications of COVID-19 for the rural and remote population of northern Ontario using a mathematical model.
- <sup>22</sup> Erwin, et al. (2020). Rural and remote communities: Unique ethical issues in the COVID-19 pandemic.
- <sup>23</sup> D. Ward, personal communication, 2021.
- <sup>24</sup> T. Wilson, personal communication, 2021.
- <sup>25</sup> Buck-McFadyen, E. V. (2015). Rural food insecurity: When cooking skills, homegrown food, and perseverance aren't enough to feed a family. *Canadian Journal Public Health*, *106*(3), e140-e146. https://doi.org/10.17269/cjph.106.4837
- <sup>26</sup> Deaton, J., & Deaton, B. J. (2020). Food security and Canada's agricultural system challenged by COVID-19. *Canadian Journal of Agricultural Economics*, *68*(2), 143-149. https://doi.org/10.1111/cjag.12227
- <sup>27</sup> Jackman, D., Konkin, J., Yonge, O., Myrick, F., & Cockell, J. (2020). Crisis and continuity: Rural health care students respond to the COVID-19 outbreak. *Nurse Education in Practice*, *48*, Article 102892. https://doi.org/10.1016/j.nepr.2020.102892
- <sup>28</sup> Manning, S. (2020, May 28). Queen's medical student leads initiative supporting rural Canadians. *Queen's University Journal*. https://www.queensjournal.ca/story/2020-05-28/news/queens-medical-student-leads-initiative-supporting-canadians-in-rural-and-isolated-communities/
- <sup>29</sup> Rural Ontario Institute. (2020, September 8). COVID-19 impact on rural employment: Ontario in the Canadian context in August, 2020. *Focus on Rural Ontario*. https://www.ruralontarioinstitute.ca/uploads/userfiles/files/COVID-
- 19%20 Impact%20 on%20 Rural%20 Employment%20%20 Ontario%20 in%20 the%20 Canadian%20 context%20 in%20 August%20 Canadian%20 C
- <sup>30</sup> Purchase, L. (2020, June 9). How COVID-19 is affecting rural communities across Canada. *CERIC*. https://ceric.ca/2020/06/how-covid-19-is-affecting-rural-communities-across-canada/
- <sup>31</sup> Manning. (2020, May 28). Queen's medical student leads initiative supporting rural Canadians.
- <sup>32</sup> Monteith, L. L., Holliday, R., Brown, T. L., Brenner, L. A., & Mohatt, N. V. (2020). Preventing suicide in rural communities during the COVID-19 pandemic. *Journal of Rural Health, 37*(1), 179-184. https://doi.org/10.1111/jrh.12448
- <sup>33</sup> Canadian Centre on Substance Use and Addiction, & Canadian Community Epidemiology Network on Drug Use. (2020). *CCENDU alert: Changes related to COVID-19 in the illegal drug supply and access to services, and resulting health harms*. https://www.ccsa.ca/sites/default/files/2020-05/CCSA-COVID-19-CCENDU-Illegal-Drug-Supply-Alert-2020-en.pdf
- <sup>34</sup> Special Advisory Committee on the Epidemic of Opioid Overdoses. Public Health Agency of Canada. (2021). *Opioid- and stimulant-related harms in Canada*. https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/
- <sup>35</sup> Penn, R. (2020, Spring). Lessons not learned: The overdose crisis in Canada. *The Positive Side*. https://www.catie.ca/en/positiveside/spring-2020/lessons-not-learned
- <sup>36</sup> Ontario Drug Policy Research Network, Office of the Chief Coroner for Ontario, Public Health Ontario, Centre on Drug Policy Evaluation. (2020, November). *Preliminary patterns in circumstances surrounding opioid-related deaths in Ontario during the COVID-19 pandemic*. Public Health Ontario. https://www.publichealthontario.ca/-/media/documents/o/2020/opioid-mortality-covid-surveillance-report.pdf?la=en
- <sup>37</sup> Turpel-Lafond, M. E. (2020). *In plain sight: Addressing Indigenous-specific racism and discrimination in B.C. health care. British Columbia Health*. https://engage.gov.bc.ca/app/uploads/sites/613/2020/11/In-Plain-Sight-Full-Report.pdf

- <sup>38</sup> Monteith, et al. (2020). Preventing suicide in rural communities during the COVID-19 pandemic.
- <sup>39</sup> Savage, et al. (2020).
- <sup>40</sup> Erwin, et al. (2020).
- <sup>41</sup> Schiff, R., Buccieri, K., Waegemakers Schiff, J., Kauppi, C., & Riva, M. (2020). COVID-19 and pandemic planning in the context of rural and remote homelessness. *Canadian Journal of Public Health, 111*, 967-970. https://doi.org/10.17269/s41997-020-00415-1
- <sup>42</sup> Canadian Mental Health Association, Ontario. (2009). *Rural and northern community issues in mental health* [Backgrounder]. https://ontario.cmha.ca/documents/rural-and-northern-community-issues-in-mental-health/
- <sup>43</sup> Wilson, C. R., Rourke, J., Oandasan, I. F., & Bosco, C. (2020). Progress made on access to rural health care in Canada. *Canadian Family Physician*, *66*(1), 31-36. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7012120/#
- <sup>44</sup> O'Sullivan, B., Leader, J., Couch, D., & Purnell, J. (2020). Rural pandemic preparedness: The risk, resilience and response required of primary healthcare. *Risk Management and Healthcare Policy*, *13*, 1187-1194. https://doi.org/10.2147/RMHP.S265610
- <sup>45</sup> Schiff et al. (2020). COVID-19 and pandemic planning in the context of rural and remote homelessness.
- <sup>46</sup> Canadian Centre on Substance Use and Addiction. (2020). *Impacts of the COVID-19 pandemic on substance use treatment capacity in Canada*. https://www.ccsa.ca/sites/default/files/2020-12/CCSA-COVID-19-Impacts-Pandemic-Substance-Use-Treatment-Capacity-Canada-2020-en.pdf
- <sup>47</sup> O'Sullivan et al. (2020).
- <sup>48</sup> O'Sullivan et al. (2020).
- <sup>49</sup> First Nations Health Authority, First Nations Health Council, & First Nations Health Directors Association. (2020). *Early access to COVID-19 vaccine for rural and remote First Nations communities* [Joint statement]. https://www.fnha.ca/about/news-and-events/news/early-access-to-covid-19-vaccine-for-rural-and-remote-first-nations-communities
- <sup>50</sup> Ireton, J. (2021, January 10). *Rural areas anxious for news on vaccine rollout plan.* CBC News. https://www.cbc.ca/news/canada/ottawa/rural-areas-wait-plan-vaccine-roll-out-doctor-critical-lack-communications-1.5865386
- <sup>51</sup> Nickel, R., Lewis, J., & Lampert, A. (2020, December 8). *Vast spaces leave Canada's remote and rural places vulnerable in COVID-19 fight*. CTV News. https://www.ctvnews.ca/health/coronavirus/vast-spaces-leave-canada-sremote-and-rural-places-vulnerable-in-covid-19-fight-1.5221502
- <sup>52</sup> BC Centre for Disease Control. (2021). *BC Community Health Service Area Health Profiles (Version 1.0): 1340 Princeton*. http://communityhealth.phsa.ca/CHSAHealthProfiles/CHSAHealthReport/Princeton
- <sup>53</sup> Demeer, A. (2019, October 17). Princeton suffers highest per capita rate of drug deaths: Coroner report. *Penticton Western News.* https://www.pentictonwesternnews.com/news/princeton-suffers-highest-per-capita-rate-of-drug-deaths-coroner-report/
- <sup>54</sup> BC Centre for Disease Control. (2021). *BC Community Health Service Area Health Profiles (Version 1.0): 1340 Princeton*.
- <sup>55</sup> Mental Health Commission of Canada. (2020). *Rural and remote mental health in Canada: Evidence brief on best and promising practices.*
- <sup>56</sup> Caxaj, S. C. (2016). A review of mental health approaches for rural communities: Complexities and opportunities in the Canadian context. *Canadian Journal of Community Mental Health*, *35*(1), 29-45. https://doi.org/10.7870/cjcmh-2015-023
- <sup>57</sup> Friesen. (2019).
- <sup>58</sup> Findlay, L. C., & Sunderland, A. (2014). Professional and informal mental health support reported by Canadians aged 15 to 24 (Catalogue No. 82-003-X). *Health Reports*. Statistics Canada.
- https://www150.statcan.gc.ca/n1/en/pub/82-003-x/2014012/article/14126-eng.pdf?st=uurlSAMx
- <sup>59</sup> Turpel-Lafond. (2020). *In plain sight: Addressing Indigenous-specific racism and discrimination in B.C. health care. British Columbia Health*.

- <sup>60</sup> Hyman, I. (2009). *Racism as a determinant of immigrant health*. Public Health Agency of Canada. https://www.researchgate.net/profile/llene-Hyman/publication/255654375\_Racism\_as\_a\_determinant\_of\_immigrant\_health/links/54abee2a0cf2bce6aa1dd292/Racism-as-a-determinant-of-immigrant-health.pdf
- <sup>61</sup> Etowa, J., Wiens, J., Thomas Bernard, W., & Clow, B. (2007). Determinants of Black women's health in rural and remote communities. *Canadian Journal of Nursing Research*, *39*(3), 56-76. https://cjnr.archive.mcgill.ca/article/view/2069
- <sup>62</sup> Creighton, et al. (2017, October). "You've gotta be that tough crust exterior man": Depression and suicide in rural-based men.
- <sup>63</sup> Creighton, et al. (2017).
- <sup>64</sup> Subedi, R., Greenberg, T. L., & Roshanafshar, S. (2019, May 15). Does geography matter in mortality? An analysis of potentially avoidable mortality by remoteness index in Canada. *Statistics Canada*. https://www.doi.org/10.25318/82-003-x201900500001-eng
- <sup>65</sup> Ontario Drug Policy Research Network, et al. (2020, November). *Preliminary patterns in circumstances surrounding opioid-related deaths in Ontario during the COVID-19 pandemic.*
- <sup>66</sup> Health Canada. (2021). Canada's opioid overdose crisis. https://www.canada.ca/en/services/health/campaigns/drug-prevention.html
- <sup>67</sup> Health Canada. (2021). Canada's opioid overdose crisis.
- <sup>68</sup> Gomes, T., Murray, R., Kolla, G., Leece, P., Bansal, S., Besharah, J., Cahill, T., Campbell, T., Fritz, A., Monro, C., Toner, L., & Watford, J. (2021). *Changing circumstances surrounding opioid-related deaths in Ontario during the COVID-19 pandemic*. Ontario Drug Policy Research Network, Office of the Chief Coroner for Ontario, & Ontario Agency for Health Protection and Promotion (Public Health Ontario). https://www.publichealthontario.ca/-/media/documents/c/2021/changing-circumstances-surrounding-opioid-related-deaths.pdf?sc\_lang=en 
  <sup>69</sup> Health Canada. (2021).
- <sup>70</sup> Canadian Centre on Substance Use and Addiction, & Canadian Community Epidemiology Network on Drug Use. (2020). *CCENDU alert: Changes related to COVID-19 in the illegal drug supply and access to services, and resulting health harms.*
- <sup>71</sup> Canadian Centre on Substance Use and Addiction. (2020). *Impacts of the COVID-19 pandemic on people who use substances: What we heard*. https://www.ccsa.ca/sites/default/files/2020-07/CCSA-COVID-19-Impacts-on-People-Who-Use-Substances-Report-2020-en.pdf
- <sup>72</sup> Farha, L., & Schwan, K. (2020, August 28). *Homelessness is a life or death issue during a pandemic*. Policy Options. https://policyoptions.irpp.org/magazines/august-2020/homelessness-is-a-life-or-death-issue-during-a-pandemic/
- <sup>73</sup> Farha & Schwan. (2020). *Homelessness is a life or death issue during a pandemic*.
- <sup>74</sup> Falvo, N. (2020). *The long-term impact of the COVID-19 recession on homelessness in Canada: What to expect, what to track, what to do*. https://nickfalvo.ca/wp-content/uploads/2020/11/Falvo-Final-report-for-ESDC-FINAL-28nov2020.pdf
- <sup>75</sup> Better Toronto Coalition. (2020). *COVID-19 and housing: Will new opportunity emerge from crisis?* Toronto Foundation. https://torontofoundation.ca/wp-content/uploads/2020/05/Final-BTC-housing-brief-for-release-June-1.pdf
- <sup>76</sup> Schiff, et al. (2020). COVID-19 and pandemic planning in the context of rural and remote homelessness.
- <sup>77</sup> Schiff, et al. (2020).
- <sup>78</sup> Wilson, C. R., Rourke, J., Oandasan, I. F., & Bosco, C. (2020). Progress made on access to rural health care in Canada. *Canadian Family Physician*, *66*(1), 31-36. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7012120/ <sup>79</sup> T. Wilson, personal communication, 2021.
- <sup>80</sup> Carra, B. (2020, April 2). *It's time to act on rural internet access*. CBC News. https://www.cbc.ca/news/canada/calgary/covid-19-rural-internet-access-cybera-1.5517643
- <sup>81</sup> Yousif, N. (2020, October 7). *Shift to virtual mental health care here to stay: Area psychotherapist*. Orillia Matters. https://www.orilliamatters.com/midland-news/shift-to-virtual-mental-health-care-here-to-stay-orillia-pyschotherapist-2768016

- <sup>82</sup> Lane, J., & Pittman, S. (2020). *Towards a rural digital economic strategy*. Canada West Foundation. https://cwf.ca/wp-content/uploads/2020/07/2020-07-CWF\_Upgrade\_Digital\_Economy\_Report.pdf
- <sup>83</sup> Brisson-Boivin, K., & McAleese, S. (2021, April 13). *How digital literacy can help close the digital divide*. Policy Options. https://policyoptions.irpp.org/magazines/april-2021/how-digital-literacy-can-help-close-the-digital-divide/
- <sup>84</sup> Ramalho, R., Adiukwu, F., Gashi Bytyçi, D., El Hayek, S., Gonzalez-Diaz, J. M., Larnaout, A., Grandinetti, P., Kundadak, G. K., Nofal, M., Pereira-Sanchez, V., Pinto da Costa, M., Ransing, R., Schuh Teixeira, A. L., Shalbafan, M., Soler-Vidal, J., Syarif, Z., & Orsolini, L. (2020). Telepsychiatry and healthcare access inequities during the COVID-19 pandemic [Letter to the editor]. *Asian Journal of Psychiatry*, *53*, Article 102234. https://doi.org/10.1016/j.ajp.2020.102234
- <sup>85</sup> Jackman, et al. (2020). Crisis and continuity: Rural health care students respond to the COVID-19 outbreak.
- <sup>86</sup> Rauch, K., Waddell, C., Ramsay, D., Lawrence, B., de Jager, M., Newall, N., & Herron, R. (2020). Examining the mental health experiences and resource needs of "frontline" healthcare workers in rural Manitoba during COVID-19. *Prairie Mountain Health*. https://prairiemountainhealth.ca/mental-health-resource-needs-of-frontline-healthcare-workers-in-rural-manitoba-during-covid-19
- <sup>87</sup> Manning. (2020, May 28).
- <sup>88</sup> Canadian Centre on Substance Use and Addiction. (2020). *Impacts of the COVID-19 pandemic on people who use substances: What we heard*.
- <sup>89</sup> Manning. (2020, May 28).
- <sup>90</sup> Lawrence-Bourne, J., Dalton, H., Perkins, D., Farmer, J., Luscombe, G., Oelke, N., & Bagheri, N. (2020). What Is rural adversity, how does it affect wellbeing and what are the implications for action? *International Journal of Environmental Research and Public Health*, *17*(19), Article 7205. https://doi.org/10.3390/ijerph17197205
- <sup>91</sup> Snowdon, W. (2019, December 4). *Opioids killing First Nations Albertans at disproportionate rates, report shows*. CBC News. https://www.cbc.ca/news/canada/edmonton/opioid-epidemic-first-nations-blood-tribe-alberta-1.5384104
- <sup>92</sup> Turpel-Lafond. (2020).
- <sup>93</sup> Belzak, L., & Halverson, J. (2018). The opioid crisis in Canada: A national perspective [Evidence synthesis]. *Health Promotion and Chronic Disease Prevention in Canada*, *38*(6), 224-233. https://doi.org/10.24095/hpcdp.38.6.02
- <sup>94</sup> Government of Alberta. (2021, June 18). *Alberta opioid response surveillance report: First Nations people in Alberta*. https://open.alberta.ca/publications/alberta-opioid-response-surveillance-report-first-nations-people-2021
- <sup>95</sup> Public Health Ontario. (2020). *COVID-19 in Ontario A focus on diversity*. https://www.publichealthontario.ca//media/documents/ncov/epi/2020/06/covid-19-epi-diversity.pdf?la=en
- <sup>96</sup> T. Wilson, personal communication, 2021.
- <sup>97</sup> Migrant Workers Alliance for Change. (2020). *Unheeded warnings: COVID-19 and migrant workers in Canada*. https://migrantworkersalliance.org/wp-content/uploads/2020/06/Unheeded-Warnings-COVID19-and-Migrant-Workers.pdf
- <sup>98</sup> Ayres, S. (2020, September 26). *Pandemic in the fields: The harsh realities temporary foreign workers face in Canada*. CTV News. https://www.ctvnews.ca/w5/pandemic-in-the-fields-the-harsh-realities-temporary-foreign-workers-face-in-canada-1.5120806
- <sup>99</sup> Migrant Workers Alliance for Change. (2020). *Unheeded warnings: COVID-19 and migrant workers in Canada.* <sup>100</sup> Migrant Workers Alliance for Change. (2020).
- <sup>101</sup> Ireton, J. (2020, November 24). *Pandemic adding to pressure on rural women's shelters*. CBC News. https://www.cbc.ca/news/canada/ottawa/increased-violence-and-calls-to-women-shelters-impact-covid-rural-areas-1.5805701
- <sup>102</sup> Moffitt, P., Aujla, W., Giesbrecht, C. J., Grant, I., & Straatman, A.-L. (2020). Intimate partner violence and COVID-19 in rural, remote, and Northern Canada: Relationship, vulnerability and risk. *Journal of Family Violence*, *1025*(31). https://doi.org/10.1007/s10896-020-00212-x

- <sup>103</sup> Women's Shelters Canada. (2020). *Shelter Voices 2020 Survey: The impact of COVID-19 on VAW shelters and transition houses*. http://endvaw.ca/wp-content/uploads/2020/11/Shelter-Voices-2020-2.pdf
- <sup>104</sup> Owen, B. (2020, November 25). Canada-wide survey of women's shelters shows abuse more severe during COVID-19 pandemic. *Globe and Mail*. https://www.theglobeandmail.com/canada/article-canada-wide-survey-of-womens-shelters-shows-abuse-more-severe-during-2/
- <sup>105</sup> McInnis, O. A., Young, M. M., & Student Drug Use Surveys Working Group. (2015). *Urban and rural student substance use* [Technical report]. Canadian Centre on Substance Abuse.
- https://www.ccsa.ca/sites/default/files/2019-05/CCSA-Urban-Rural-Student-Substance-Use-Report-2015-en\_0.pdf <sup>106</sup> Russell, C., Nuefeld, M., Sabioni, P., Varatharahan, T., Ali, F., Miles, S., Henderson, J., Fischer, B., & Rehm, J. (2019). Assessing service and treatment needs and barriers of youth who use illicit and non-medical prescription drugs in northern Ontario, Canada. *PLoS ONE*, *14*(12). Article e0225548. https://doi.org/10.1371/journal.pone.0225548
- <sup>107</sup> Hospital for Sick Children. (2021, February 26). *New research reveals impact of COVID-19 pandemic on child and youth mental health* [Press release]. https://www.sickkids.ca/en/news/archive/2021/impact-of-covid-19-pandemic-on-child-youth-mental-health/
- <sup>108</sup> Arim, R., Findlay, L., & Kohen, D. (2020). The health and behavioural impacts of COVID-19 on youth: Results from the Canadian Perspectives Survey Series 1 (Catalogue No. 45280001). *Statistics Canada*. https://www150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00020-eng.htm
- <sup>109</sup> Canadian Institutes of Health Research. Institute of Neurosciences. (2021). *Mental health and substance use impacts of COVID-19: Summary of knowledge synthesis projects.* https://cihr-irsc.gc.ca/e/52373.html
- <sup>110</sup> Baker, R. (2020, May 12). *COVID-19 isolation threatening mental health of rural youth.* Canada's National Observer. https://www.nationalobserver.com/2020/05/12/news/covid-19-isolation-threatening-mental-health-rural-youth
- <sup>111</sup> Trent University. (2020, June 17). *The impact of physical distancing on older volunteers in rural communities* [News article]. https://www.trentu.ca/coronavirus/news-events/27111
- <sup>112</sup> Chong, T., Curran, E., Ames, D., Lautenschlager, N. T., & Castle, D. J. (2020). Mental health of older adults during the COVID-19 pandemic: Lessons from history to guide our future [Letter to the editor]. *International Psychogeriatrics*, *32*(10), 1249-1250. https://doi.org/10.1017/S1041610220001003
- <sup>113</sup> World Health Organization. (2010). *Increasing access to health workers in remote and rural areas through improved retention global policy recommendations*. https://apps.who.int/iris/handle/10665/44369
- <sup>114</sup> Ramalho, R., Adiukwu, F., Bytyçi, D. G., Hayek, S. E., Gonzalez-Diaz, J. M., Larnaout, A., Grandinetti, P., Kundadak, K. G., Nofal, M., Pereira-Sanchez, V., Pinto da Costa, M., Ransing, R., Teixeira, A. L. S., Shalbafan M., Vidal, S.-J., Syarif Z., & Orsolini, L. (2020). Telepsychiatry and healthcare access inequities during the COVID-19 pandemic. *Asian Journal of Psychiatry*, *53*, Article 102234. https://doi.org/10.1016/j.ajp.2020.102234
- <sup>115</sup> Centres for Disease Control and Prevention. (2021). *Rural communities*.
- https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/other-at-risk-populations/rural-communities.html#
- <sup>116</sup> Sood, L., & Sood, V. (2020). Being African American and rural: A double jeopardy from COVID-19. *Journal of Rural Health*, *37*(1), 217-221. https://doi.org/10.1111/jrh.12459
- <sup>117</sup> Centre for Rural and Remote Mental Health. (2018). *The orange declaration on rural and remote mental health.* https://www.crrmh.com.au/research/the-orange-declaration/
- <sup>118</sup> Northern Health. (2020). *Northern BC rural and remote and First Nations communities COVID-19 response framework*. https://www.northernhealth.ca/sites/northern\_health/files/health-information/health-topics/coronavirus/documents/covid-19-response-framework-rural-first-nations.pdf





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