

Catalogue no. 45200002
ISBN 978-0-660-41060-9

Studies on Gender and Intersecting Identities

Statistical Portrait of Women and Girls by the Relative Remoteness of their Communities, Series 3: Health and Well-being

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Release date: March 21, 2022



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Acknowledgments

This study is funded by the Department for Women and Gender Equality.

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by **Mandana Mardare Amini**

Highlights

- In Canada, significant differences exist between women and girls aged 12 years and older living in more accessible areas and those living in more remote areas in terms of perceived health. The period of analysis is from 2015-2018.
 - ▶ Over this period, more than half of women and girls in Canada reported very good or excellent health. The proportions were lower among women and girls living in more remote communities - it was 60.9% in easily accessible areas and dropped to 51.7% in very remote areas.
 - ▶ The pattern was the same for Indigenous women and girls. The proportion of this population who reported very good or excellent health was lower in more remote areas than in more accessible areas, reaching as low as 43.0% in very remote areas.
 - ▶ Overall, the perceived health conditions of women and girls in very remote areas shifted from very good or excellent to good health compared to those in other remoteness categories.
- Women and Indigenous women aged 18 years and older who lived in very remote areas also reported the lowest physical activity levels of all remoteness area categories.
- The proportion of women and girls who had a regular health care provider was substantially lower in very remote areas (55.4% in very remote areas versus 87.7% in easily accessible areas). The same pattern was observed among Indigenous women and girls, with an even sharper drop in very remote areas (35.1% in very remote areas reported having a regular health care provider versus 87.3% in easily accessible areas).
 - ▶ Absence of services was reported as one of main reasons for not having a regular health care provider, regardless of remoteness category – though the barrier was more prevalent in more remote communities, particularly in very remote areas.
- Mirroring the findings for general health, a lower proportion of women and girls who lived in more remote communities reported very good or excellent mental health, compared to the other remoteness area categories. The gap was wider for Indigenous women and girls living in very remote areas versus those in easily accessible areas. A similar shift from very good or excellent to good mental health was observed among the Indigenous female population living in very remote areas.
 - ▶ The proportion of women and girls in Canada who reported having consulted a health professional about their emotional and mental health was similar across remoteness categories.
 - ▶ However, Indigenous women and girls who lived in more remote areas were less likely to report the use of such services than those who lived in more accessible areas.
 - ▶ In 2015-2016, a higher proportion of Indigenous women and girls aged 15 years and older in more accessible areas reported suicidal thoughts compared to other remoteness categories.
- The age-standardized mortality rate of women and girls was 1.5 times greater in less accessible areas and 1.4 times greater in remote areas than it was for women and girls in easily accessible areas.
 - ▶ The five leading causes of death were similar for women and girls across the remoteness area categories, except for very remote areas, where suicide or intentional self-harm ranked second in the top five leading causes of death.
 - ▶ The age-standardized suicide mortality rate increased with area remoteness. A large disparity was observed between very remote areas (31.5 deaths per 100,000 population) and easily accessible areas (5.0 deaths per 100,000 population).

Introduction

Living in a rural area remains a significant determinant of health disparities for women, both worldwide and in Canada (UNCSW, 2018; Centre of Excellence for Women's Health, 2004).¹ Prior research has found that certain aspects of rural women's health in Canada, like disease, mortality and the availability of health resources lag behind those of their urban counterparts, owing to both geographical and sociocultural impacts of rurality (Centre of Excellence for Women's Health, 2004; Leipert, 2005).

Difficulties in accessing health information and health care services, as well as lower-quality services, are among factors that could play a role in the health gap between Canada's rural and urban women (Centres of Excellence for Women's Health, 2004; Subedi et al., 2019). For example, in 2015, only 8% of physicians practiced in rural communities in Canada (Canadian Institute for Health Information, 2016). Also, limited access to the communications infrastructure and the lack of broadband connectivity,² for example, may impede the rural population from taking full advantage of innovative technologies in health care, such as online health resources (CRTC, 2020). As a result, rural populations are less likely to have access to a regular health care provider or visiting specialists (Sibley and Weiner, 2011). Rural women in Canada fare worse in life expectancy, self-reported general health, risk of chronic disease, infant mortality rate, preventable and treatable mortality rate, and suicide mortality rate compared with their urban counterparts (Canadian Institute for Health Information, 2006; Subedi et al., 2019; Public Health Agency of Canada, 2018).

While rural locations themselves do not necessarily lead to poor health, previous research has shown that living in a rural setting may not only limit access to health services, but also influence other socioeconomic, environmental and occupational health determinants (Centres of Excellence for Women's Health, 2004; Leipert, 2005). Research suggests that social determinants such as education and poverty are closely linked to the population's health (Employment and Social Development Canada, 2016). For example, income and education may affect help-seeking behaviours and healthy behaviours (such as physical activity), which, in turn, may impact health outcomes (Stackhouse, 2019; Leipert, 2005; Sibley and Weiner, 2011).

With respect to women and girls living in rural areas, previous research has shown that they have lower educational attainment and lower labour force participation rates than their urban counterparts, and that they are overrepresented in low-income situations (Status of Women Canada, 2016). As such, their income disadvantages, for example, could amplify the financial and emotional difficulties that rural women experience when travelling longer distances to seek essential health care. In turn, poorer health conditions may affect the capacity of individuals to participate in the economy and their engagement in their communities (Lavergne and Kephart, 2012; Centres of Excellence for Women's Health, 2004). Thus, rurality is "a powerful determinant of women's health, as both a geographic and sociocultural influence" (Centres of Excellence for Women's Health, 2004).

Within Canada, various standards are used to define rurality or remoteness, although distance and density are generally accepted for most classification methods (Subedi et al., 2020). Specific geographical features of Canada, such as its low population density and large land size, in addition to the different distances from urban centres, make rural communities heterogeneous in terms of geographical isolation, population density and service accessibility (Centres of Excellence for Women's Health, 2004; Public Health Agency of Canada, 2018). Using the Remoteness Index (RI) and the new RI classification, merged with the Canadian Community Health Survey (CCHS) and Canadian Vital Statistics - Death Database (CVSD), this statistical report focuses on key indicators of the health and well-being of women and girls by the remoteness of their communities. One of the greatest advantages of using the RI is that this tool allows further disaggregation of data by remoteness. The RI assigns a relative remoteness value to each census subdivision – based on proximity to census agglomerations as a proxy for service accessibility. Used with the RI classification, this tool permits the grouping of census subdivisions by their relative remoteness into five

1. Women's health status has, however, improved since the adoption of the Beijing Declaration and Platform for Action in 1995 (United Nations, 1995). Many countries, including Canada, established specific government structures to promote health equity for girls and women (Government of Canada, 2020). As a result, in Canada, there were some advancements in women's health circumstances in the areas of breast cancer, HIV/AIDS, substance misuse, and reproductive and genetic technologies (Health Canada, 2010). However, despite the progress, there is still a long road to gender health equality, particularly in rural communities worldwide (UNCSW, 2018). In 2018, the United Nations Commission on the Status of Women agreed that rural girls and women continue to experience inequalities to an extent that significantly limits the progress of sustainable development goals. That is why empowering this population will help achieve the goals by 2030. One of the main obstacles standing in the way of progress is a lack of resources and inadequate disaggregated data for research on women's health worldwide and in Canada (UN Women, 2005).
2. In 2018, only 40.8% of rural households had access to high speed internet (a service of 50 Mbps download and 10 Mbps upload) compared to 97.7% of urban homes (CRTC, 2020).

categories: easily accessible; accessible; less accessible; remote; and, very remote areas. The refined categories of remoteness have the potential for a greater differentiation, description and understanding of the very different realities of diverse communities across Canada.

This report, which is the third of a series of four papers on the socioeconomic and sociodemographic profile of women living in communities at varying levels of remoteness,³ specifically focuses on the general health, mental health and leading causes of death of women and girls living at different levels of remoteness in Canada.⁴ Unlike series 1 and series 2, due to the use of different data sets with different sample sizes, women and girls are not disaggregated by certain characteristics like immigration status or ethnocultural characteristics. Instead, they are only disaggregated by Indigenous identity.

General health

The proportion of women and girls who report very good or excellent perceived health is the lowest in very remote areas

From 2015 to 2018, the majority of women and girls aged 12 years and older (60.7%) in Canada reported very good or excellent perceived health, followed by 27.7% who reported good perceived health and 11.5% who reported fair or poor perceived health (Chart 1).⁵ However, the perceived health status varied across the remoteness area categories. The perceived health status of women and girls in easily accessible areas was similar to that of Canada as a whole, while it was worse for those residing in more remote communities. Indeed, the proportions of women and girls reporting very good or excellent health were significantly lower in less accessible (58.3%), remote (58.3%) and very remote areas (51.7%) than that in easily accessible areas (60.9%). Conversely, significantly higher proportions of women and girls living in less accessible (13.5%) and remote areas (13.0%) reported fair or poor health, compared with those living in easily accessible areas (11.1%). Very remote areas stand slightly in contrast to the two other more remote areas. While the very remote areas were where the lowest proportion of very good or excellent perceived health was reported, the difference in proportions of those who reported fair or poor perceived health between women and girls living in very remote areas and those in easily accessible areas was not significant. It seems that the perceived health conditions of women and girls in very remote areas shifted from very good or excellent to good health. Indeed, significantly higher proportion of women and girls in very remote areas (35.1%) reported good perceived health, compared with that in easily accessible areas (28.0%).

Among Indigenous women and girls aged 12 years and older, more than half of the population (51.0%) reported very good or excellent health, followed by 31.3% who reported good health, and 17.7% who reported fair or poor health (Chart 1).⁶ The pattern of perceived health of Indigenous women and girls was partly different from that described above. While the proportion of Indigenous women and girls living in very remote areas who reported very good or excellent perceived health (43.0%) was significantly lower than the proportion of those in easily accessible areas (53.0%), in less accessible and remote areas, the proportions reporting very good or excellent health did not significantly vary. Also, in contrast to the overall female population, there were no significant differences in reporting fair or poor health between the remoteness areas. Finally, similar to all women and girls, the proportion of Indigenous women and girls living in very remote areas who reported good health was the highest of all remoteness areas – and equal to those who reported very good or excellent perceived health (43.3%). Overall, perceived health condition did not significantly vary across more remote areas – except in very remote areas, where the significantly lower proportion of Indigenous women and girls reporting very good or excellent health, combined with the significantly higher proportion reporting good health, suggests a shift from very good or excellent to good perceived health among Indigenous women and girls.

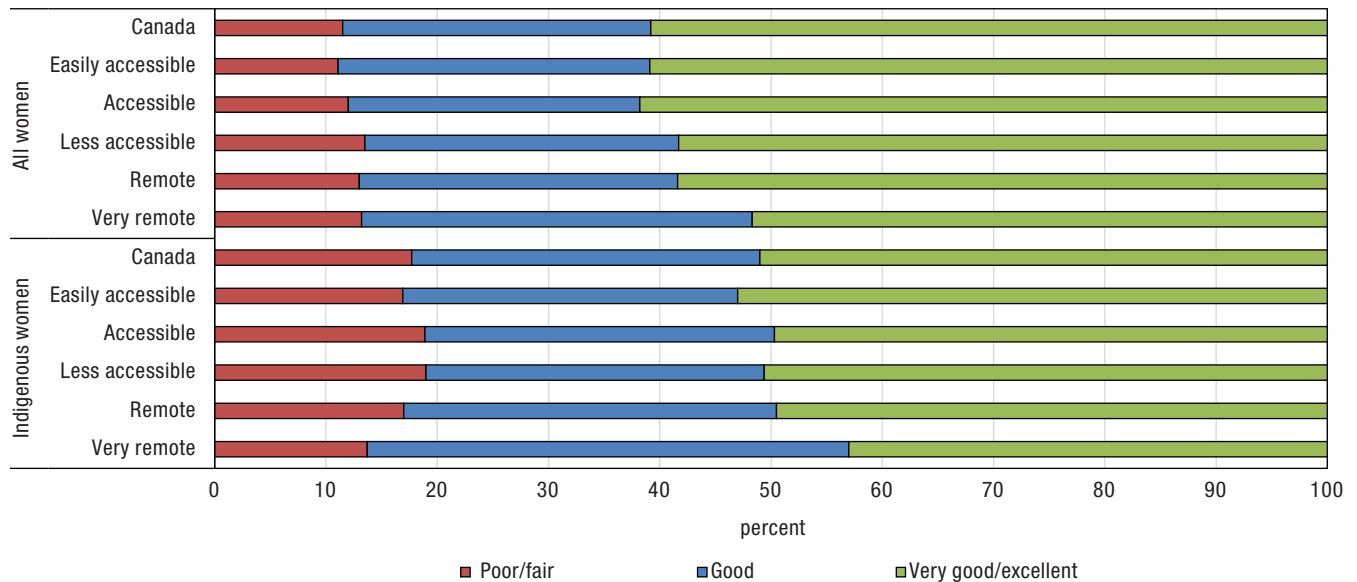
3. Women and girls comprised just over half of Canada's population (50.8%) in 2016. The majority of the population lived in easily accessible areas (68.5%), followed by accessible areas (19.2%), less accessible areas (7.7%), remote areas (3.8%) and very remote areas (0.8%). The distribution of the Indigenous women and girls population followed a similar pattern: 32.4% of Indigenous women and girls lived in easily accessible areas; 25.8% in accessible areas; 15.1% in less accessible areas; 15.6% in remote areas; and, 11.1% lived in very remote areas. However, their representation increased as the communities became more remote. Indeed, Indigenous women and girls represented 4.9% of the total female population in Canada, but they accounted for only 2.3% of the female population living in easily accessible areas, 6.6% in accessible areas, 9.6% in less accessible areas, 20.3% in remote areas, and 72.5% in very remote areas (Leclerc, 2021).

4. Across this paper, comparisons were made between women and girls living in different remoteness categories, using easily accessible areas as the reference category. Comparisons are not made between women and girls and men and boys. An examination of the associations between health and sociodemographic factors among the population (such as sex differences) is beyond the scope of this paper.

5. Perceived health refers to the perception of the respondent's general health status. The possible answers were poor, fair, good, very good and excellent (CCHS website).

6. It should also be noted that the CCHS does not cover the population living on-reserve or in other Indigenous settlements, regions which are mostly located in more remote areas (Statistics Canada website; Parrott and McCue, 2016; Government of Canada, 2011).

Chart 1
Perceived health of women and girls by remoteness area category from 2015 to 2018



Source: Statistics Canada, 2015 to 2018 Canadian Community Health Survey and Remoteness Index Classification.

Women living in very remote areas report the lowest physical activity level of all remoteness areas

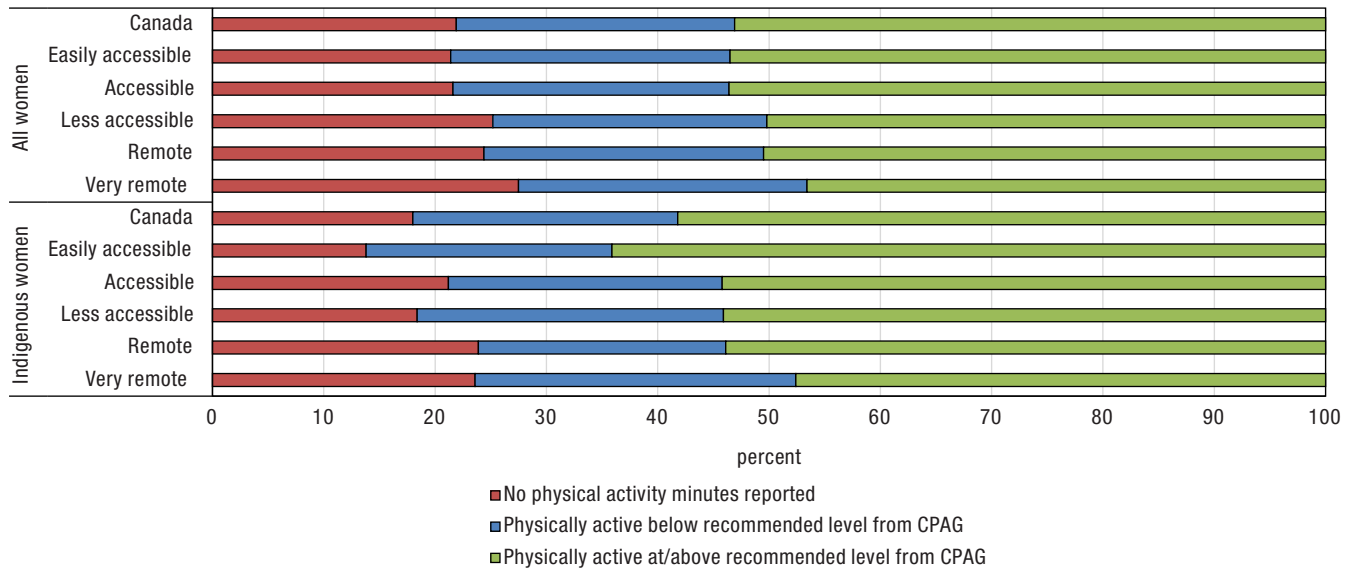
Considered as a health behaviour, physical activity is studied in parallel with general health. However, less attention has been given to the policy inactions, practice and research on physical activity in rural and remote areas (Nykirforuk et al., 2018).

From 2015 to 2018, more than half of women aged 18 years and older⁷ in Canada (53.1%) reported that they were physically active at or above the recommended level from Canadian Physical Activity Guideline (CPAG) in the past seven days (Chart 2).⁸ One in four (25.0%) women in Canada reported being physically active below the recommended level from CPAG, and slightly more than one in five (21.9%) reported no physically active minutes in the last seven days. The proportions of women living in easily accessible and accessible areas who were physically active at or above CPAG's recommendation were similar to that at the national level. However, the prevalence of women meeting the CPAG's recommendation was significantly lower in more remote communities – the largest difference was observed in very remote areas, where 46.7% of women met the guideline, compared with 53.5% in easily accessible areas. Conversely, compared with women living in easily accessible areas, no physical activity according to the CPAG was significantly more prevalent among those living in less accessible, remote and very remote areas. About one in five women in easily accessible areas (21.4%) reported no physical activity minutes according to the CPAG, while the proportions were approximately one in four in less accessible (25.2%) and remote areas (24.4%) and more than one in four in very remote areas (27.5%).

7. Youth physical activity was excluded from the analysis due to sample size constraints.

8. "Respondents aged 18 or above were asked about physical activity done across the domains of leisure, work, housework or transportation. They were asked to report how many times in the past 7 days they had participated in moderate or vigorous physical activity (where moderate activity was defined as causing an increase in breathing and heart rate). Those who had participated one or more times reported the average amount of time they were active on each occasion (as ≤15 minutes, 16-30 minutes, 31-60 minutes, 61 minutes-2 hours, or >2 hours). The data are used to classify individuals as to whether or not they meet the recommendation for at least 150 minutes of moderate or vigorous physical activity per week" (Canadian Society Exercise Physiology, 2012 and CCHS website).

Chart 2
Physical activity of women by remoteness area category from 2015 to 2018



Source: Statistics Canada, 2015 to 2018 Canadian Community Health Survey and Remoteness Index Classification.

With respect to Indigenous women, more than half (58.2%) reported that they met the CPAG’s recommendation of at least 150 minutes of moderate or vigorous physical activity per week, 23.8% reported that they did not meet the guideline, and finally, 18.0% reported no physical activity minutes (Chart 2). Among Indigenous women, those with higher levels of physical activity were concentrated in easily accessible areas: 64.1% were physically active at or above the recommended level and 13.8% reported no physical activity minutes. The proportions of Indigenous women who reported meeting the CPAG were almost the same in accessible, less accessible and remote areas – and they were significantly lower than that in easily accessible areas. The proportion was the lowest in very remote areas, where less than half of Indigenous women (47.6%) met the guideline. Reporting no physical activity minutes was significantly more prevalent among Indigenous women in accessible (21.2%), remote (23.9%) and very remote areas (23.6%) compared with those in easily accessible areas.

Overall, of all remoteness area categories, very remote areas had the lowest proportion of women and Indigenous women reporting that they met the recommended level of physical activity. It is unknown if there were culturally safe and inclusive services in these remote areas, but studies have argued that services as such might be important to promote physical activity (Baba, 2013; Giles and Darroch, 2014).

While physical activity is only one health behaviour indicator among many others, it may not be a coincidence that women living in more remote areas reported both lower physical activity and lower perceived health – especially when we consider that, as shown in previous research, Canadians who are not physically active usually fare worse than those who are physically active on many health measures, such as being overweight, stress, and blood pressure (Gilmour, 2007).

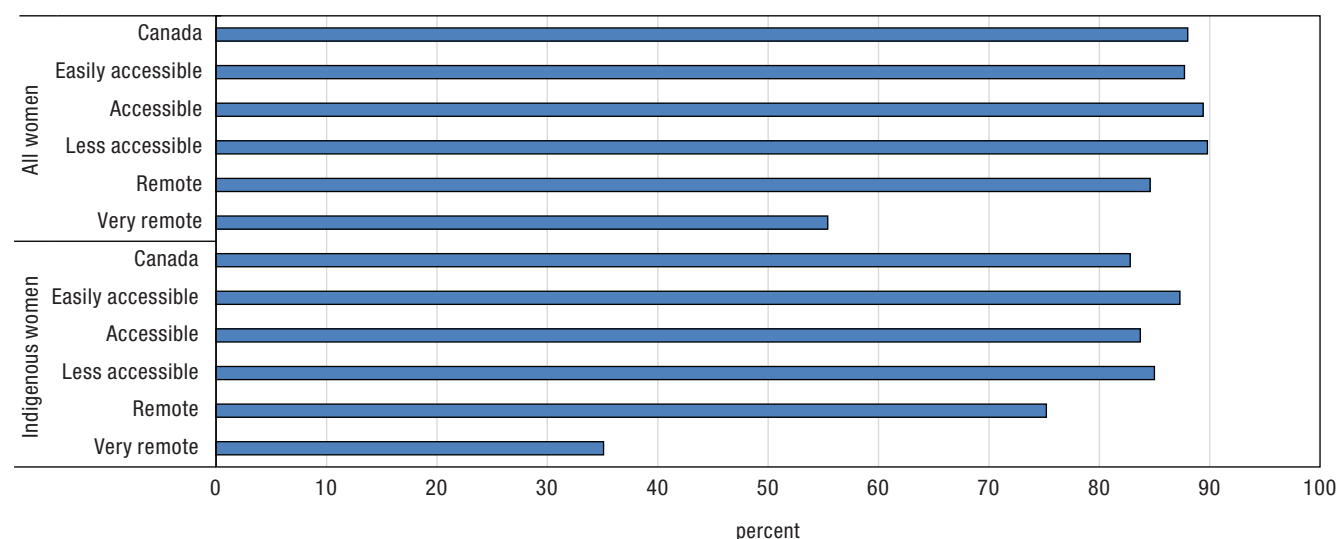
Very remote areas have the highest proportion of women and girls without a regular health care provider of all remoteness area categories

Access to a regular primary health care provider is generally associated with better health outcomes, through preventive health care and management of ongoing health conditions, and lowers health costs (Shi, 2012; Statistics Canada, 2020).

From 2015 to 2018, on average, approximately 9 in 10 women and girls in Canada aged 12 years and older (88.0%) reported having a regular health care provider whom they regularly see or talk to when they need care or advice for their health (Chart 3). The proportion varied slightly from one remoteness area to another, except for very remote areas, where the proportion was noticeably lower, with 55.4% of women and girls in these areas reporting having a regular health care provider, compared with 87.7% in easily accessible areas and 88.0%, on average, in Canada.

Chart 3

Proportion of women and girls with a regular health care provider by remoteness area category from 2015 to 2018



Source: Statistics Canada, 2015 to 2018 Canadian Community Health Survey and Remoteness Index Classification.

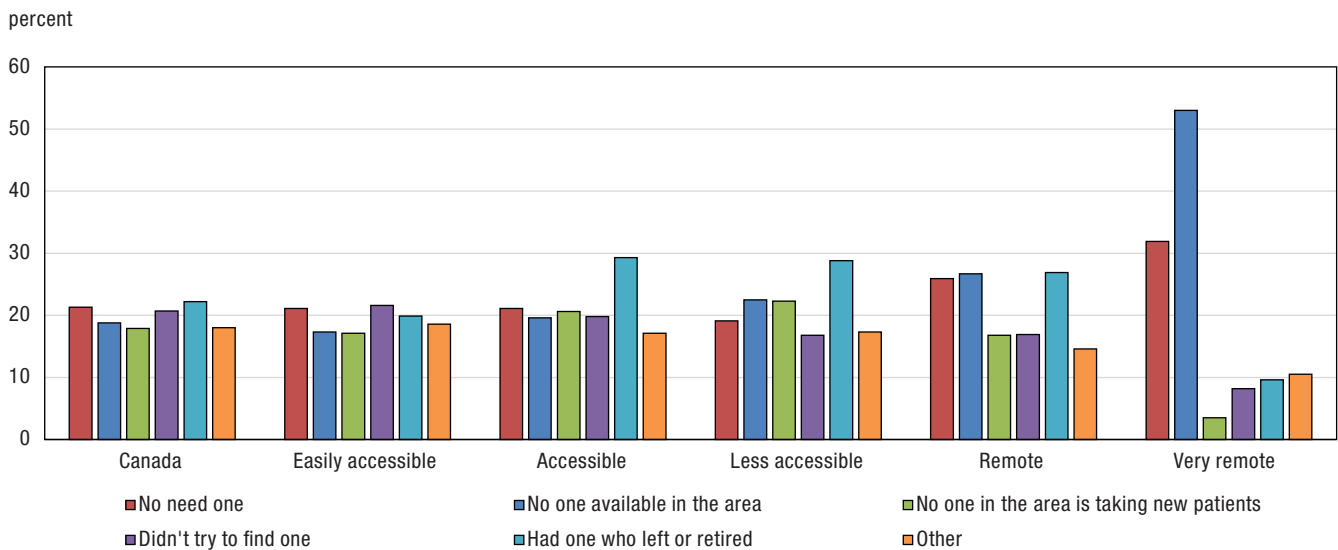
A similar pattern was observed among Indigenous women and girls aged 12 years and older. At the national level, more than 8 in 10 Indigenous women and girls (82.8%) reported having a regular health care provider (Chart 3). The proportion was significantly lower in remote areas (75.2%), and reached the lowest in very remote areas (35.1%) – almost 2.5 times less than that in easily accessible areas (87.3%).

When asked about the reasons for not having a regular health care provider, the most common three reasons cited by women and girls across Canada were “had one who left or retired,” “no need one”⁹ and “didn’t try to find one” (Chart 4).¹⁰ The same top reasons were reported by women and girls in easily accessible areas, while women and girls living in accessible areas reported “no one in the area is taking new patients” in place of “didn’t try to find one.” In more remote areas, an absence of health care provider in the area was the most common reason for not having a regular health care provider: “had one who left or retired” and “no one available in the area” were the top two reasons, followed by “no one in the area is taking new patients” in less accessible areas and “no need one” in remote areas.

9. The full question is “Do not need one in particular, but you have a usual place of care.”

10. The indicator was not estimated for Indigenous women and girls due to sample size constraints.

Chart 4
Reasons for not having a regular health care provider reported by women and girls by remoteness area category from 2015 to 2018



Source: Statistics Canada, 2015 to 2018 Canadian Community Health Survey and Remoteness Index Classification.

The pattern was different in very remote areas, where more than half of women and girls indicated that the top reason for not having a regular health care provider was “no one available in the area” (53.0%) – while the same reason was reported by 18.8% of women and girls at the national level, 17.3% in easily accessible areas, 19.6% in accessible areas, 22.5% in less accessible areas and 26.7% in remote areas. While rural locations themselves do not necessarily lead to poor health, lack of access or difficulties in accessing health care services in more remote areas certainly play a role in the health gap (Subedi et al., 2019).

The second most common reason in very remote areas, reported by almost one-third of women and girls was “no need one” (31.9%). The potential underlying reasons for this high rate could be lack of traditional healing methods or medicine being offered, lack of safety or culturally appropriate health services (Baba, 2013; Allen et al., 2020; Indigenous Services Canada, 2021), cost or expenses, or lack of time to utilize a primary care provider for Indigenous women and girls who were highly represented in very remote areas (National Collaborating Center for Indigenous Health, 2020). Altogether, while unavailability of a regular primary care provider was reported across all remoteness areas, the highest proportion was in very remote areas.

Mental health

Women and girls in very remote areas report poorer mental health than those in other remoteness area categories

Perceived mental health is an indication of the general well-being of the population, and it provides general information about the population with mental, emotional or distress problems.

In Canada, on average, from 2015 to 2018, more than two-thirds (68.3%) of women and girls aged 12 years and older perceived their mental health as very good or excellent, followed by 23.9% who reported good mental health, and 7.8% who reported fair or poor mental health (Chart 5).¹¹ Similar to the prevalence observed for perceived health, the mental health status of women and girls varied slightly across remoteness area categories, except for very remote areas. Very remote areas had the lowest proportion of women and girls who reported very good or excellent mental health (55.8%) and, in contrast, the highest proportion of women and girls who reported good mental health (34.5%), compared with those in easily accessible areas (68.4% and 23.9%, respectively). The proportions of women and

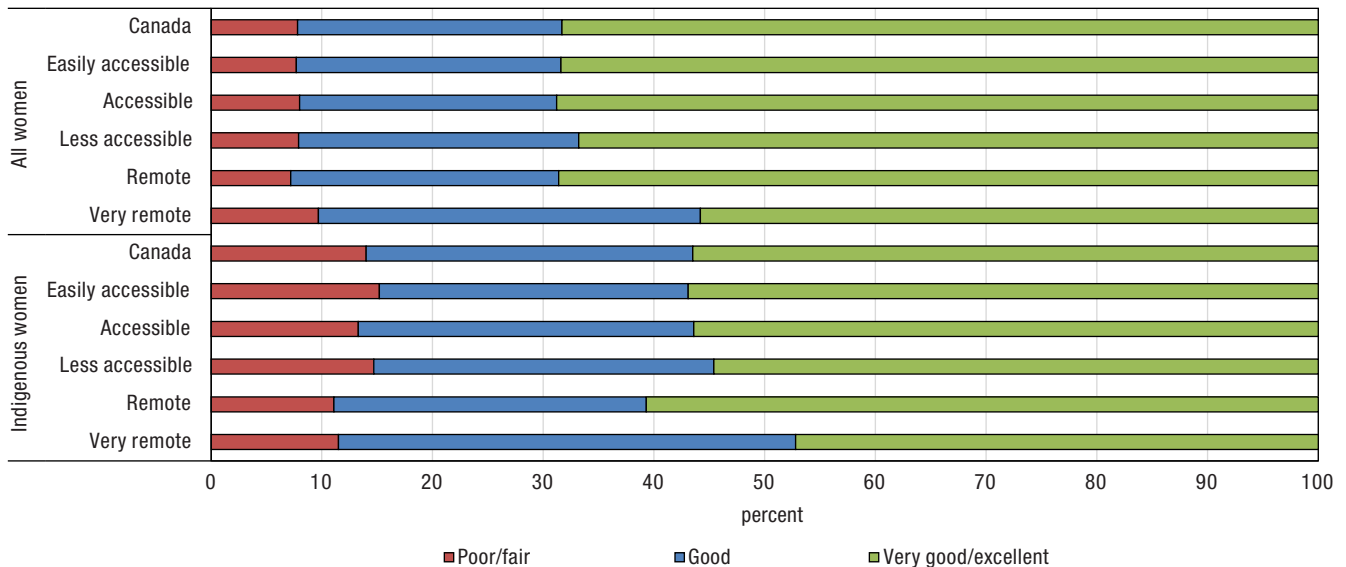
11. The possible answers were poor, fair, good, very good and excellent.

girls reporting fair or poor mental health did not significantly differ across the remoteness categories. Similar to perceived health, the findings suggest a shift from very good or excellent to good mental health in very remote areas.

Among Indigenous women and girls aged 12 years and older, more than half of the population (56.5%) reported very good or excellent mental health, followed by 29.5% who reported good mental health, and 14.0% who reported fair or poor mental health (Chart 5). Perceived mental health of Indigenous women and girls across remoteness areas followed a similar pattern to the one described above. The proportion of Indigenous women and girls who lived in very remote areas and who reported very good or excellent mental health (47.2%) was the lowest of all remoteness categories, while the proportion who reported good mental health was the highest of all (41.3%) – a significant jump from those in easily accessible areas (27.9%). There was no significant difference in the proportions of the Indigenous female populations living in very remote areas and those living in easily accessible areas who reported fair or poor mental health. Accordingly, a similar shift from very good or excellent to good mental health was observed among the Indigenous female population living in very remote areas.

Aside from some socioeconomic factors, like educational attainment, employment, and difficulty accessing health care resources, the overall poorer mental health status among Indigenous women and girls may also be attributed to the socioeconomic marginalization, as well as trauma, caused by colonization and residential school experiences, impacts of racism and discrimination, and lack of culturally appropriate and safe services available to the population (Baba, 2013; Roy, 2014).

Chart 5
Perceived mental health of women and girls by remoteness area category from 2015 to 2018



Source: Statistics Canada, 2015 to 2018 Canadian Community Health Survey and Remoteness Index Classification.

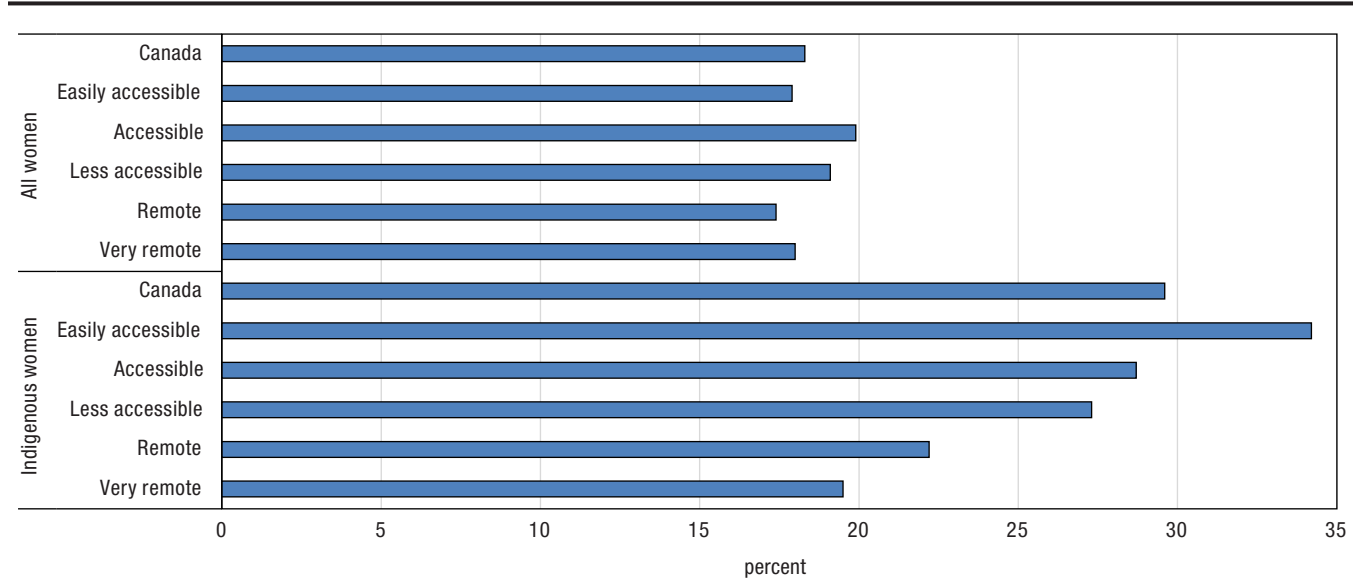
Indigenous women and girls in more accessible areas are more likely than those in other communities to report both having consulted a health professional about their emotional or mental health, and having very good or excellent mental health

Seeking help from mental health professionals has been shown to be essential for the prevention, early diagnosis and action taken for the treatment of mental health conditions, as well as for the possible recovery from these conditions (Gulliver et al., 2012).

From 2015 to 2018, 18.3% of women and girls aged 12 years and older consulted a health care professional about their emotional or mental health in the preceding 12 months in Canada. This proportion slightly differed across the remoteness categories and remained, overall, lower than 20.0% (Chart 6).¹²

Meanwhile, there were greater variations among Indigenous women and girls who consulted a health care professional about their emotional or mental health in the preceding 12 months depending on the remoteness of their communities. Across all communities, the highest prevalence of Indigenous women and girls who consulted a health care professional about their emotional or mental health in the past year was in easily accessible areas (34.2%). The percentages were smaller in areas with higher level of remoteness and was lowest for those living in remote (22.2%) and very remote (19.5%) areas.

Chart 6
Proportion of women and girls who consulted a health professional about emotional or mental health by remoteness area category from 2015 to 2018



Source: Statistics Canada, 2015 to 2018 Canadian Community Health Survey and Remoteness Index Classification.

Although, the proportion of women and girls in Canada who had seen or spoken to a mental health professional did not significantly differ across remoteness categories, a contrast existed when compared to the proportions of those who reported, or not, very good or excellent mental health. A lower proportion of women and girls in very remote areas reported very good or excellent mental health. At the same time, the proportion of women and girls who reported having consulted a mental health professional in these very remote areas was not higher than those in other remoteness categories.

Similarly, while Indigenous women and girls living in very remote areas had the lowest proportion who reported very good or excellent mental health, they also had the lowest proportion who reported having seen or spoken to a mental health professional in the preceding 12 months of all remoteness areas.

The fact that women and girls living in more remote communities were not more likely to have seen or consulted a mental health professional, despite lower proportions who reported very good or excellent health, may be explained by a lack of access to mental health service providers. Previous studies have indicated that the health care accessibility of people in rural areas falls short of apparent needs, mostly because of the cost and shortage

12. The only significant gap when compared with easily accessible areas (17.9%) was for accessible areas (19.9%).

of services (Moroz et al., 2020; Sanmartin and Ross, 2006; Wilson et al., 2020; Sibley and Weiner, 2011). In Canada, non-physician mental health services – the most common mental health supports – and prescription drugs are not necessarily covered by provincial or territorial governments, and coverage by private insurance plans is usually inadequate (Canadian Mental Health Association, 2018; Moroz et al., 2020). In addition, people in rural areas are more likely to have to travel and endure long travel times to access necessary medical services (Chan et al., 2007). Further, stigma and discrimination in primary care settings, as well as self-stigma, are other examples of significant obstacles to mental health help-seeking behaviours (Centre for Addiction and Mental Health, 2016; Knaak et al., 2017). Self-stigma is suggested to be more prevalent in smaller communities, such as in rural areas, because of confidentiality concerns (Centre for Addiction and Mental Health, 2016). The issue is probably exacerbated by the availability of infrastructure to allow additional services, such as online or telephone medical consultations (CRTC, 2020). Finally, it should be noted that the questions in the CCHS specifically asked about mental health professionals and there was no question about traditional/cultural support for mental health. As such, respondents who sought mental health support via traditional healing methods or medicines may not have been captured by the question (Statistics Canada [website](#)).

A higher proportion of Indigenous women and girls in more accessible areas report suicidal thoughts

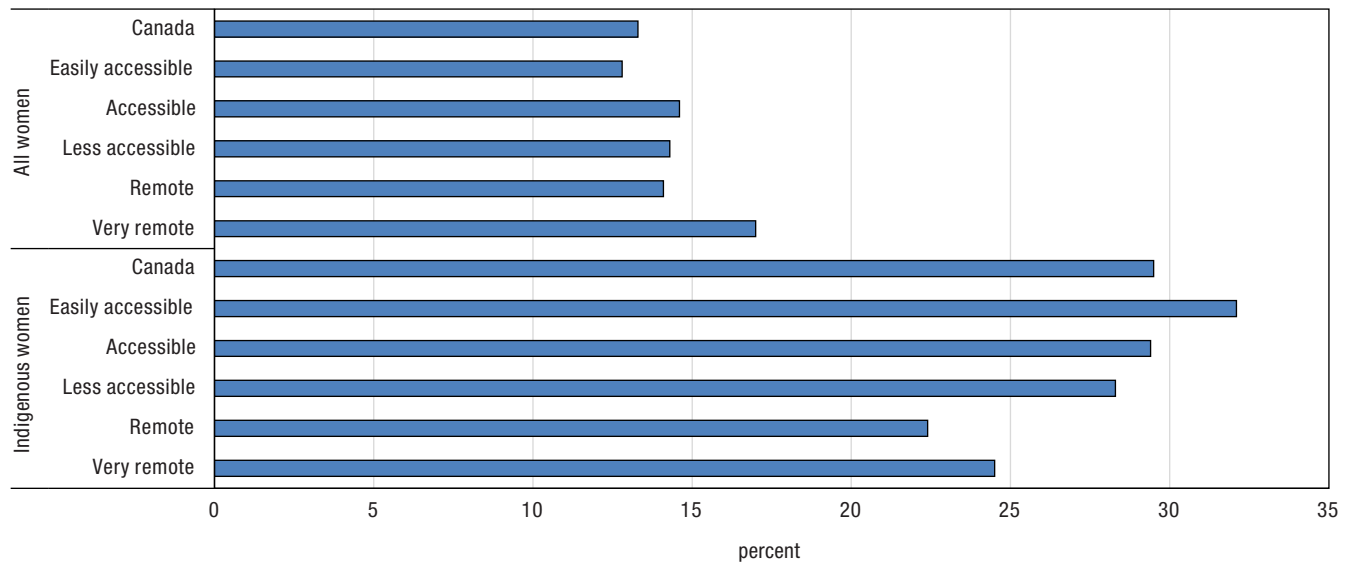
Averaged over 2015-2016,¹³ more than 1 in 10 (13.3%) women and girls aged 15 years and older in Canada indicated that they have experienced suicidal thoughts in their lifetime (Chart 7). The prevalence was slightly lower for women and girls residing in easily accessible areas (12.8%), and significantly higher in accessible areas (14.6%). Although the proportion reached as high as 17.0% in very remote areas, the difference was not significant compared to easily accessible areas, perhaps because of higher sampling variability in very remote areas.

The prevalence of suicidal thoughts among Indigenous women and girls was almost 3 in 10 (29.5%) in 2015-2016 (Chart 7). The highest proportion of Indigenous women and girls who reported having contemplated suicide in their lifetime was in easily accessible areas, where about one-third (32.1%) of the population reported having had suicidal thoughts in their lifetime. The prevalence was lowest in remote areas (22.4%). The proportion in very remote areas (24.5%) was lower than that in easily accessible areas, however the gap was not significant, likely, again, because of higher sampling variability in very remote areas.

Many complex factors need to be considered to understand the high proportion of Indigenous women and girls living in more accessible areas who reported having experienced suicidal thoughts. The finding may suggest that living in more urban regions, sometimes far from their communities of origin, may contribute to possible marginalization of the population. These women and girls may experience distance barriers with their cultures and communities of origin, challenging negative stereotypes set by the rest of the population, intergenerational trauma, as well as the effects of colonization (Environics Institute, 2010; Kumar and Tjepkema, 2019). Additionally, lack of appropriate services available in more remote areas may force some women and girls to relocate to urban areas to seek necessary treatment (Rechel et al., 2016), which may result in growing the proportion of Indigenous women and girls who have had suicidal thoughts in these regions. Finally, the lower prevalence of suicidal thoughts among Indigenous women and girls population in more remote areas could partially come from the non-coverage of the on-reserve population or other Indigenous settlements in the CCHS, which are mostly located in more remote areas (Parrott and McCue, 2016; Government of Canada, 2011). As such, the lower prevalence of suicidal thoughts among Indigenous women and girls in more remote areas could partially come from the coverage of the survey.

13. Questions related to suicide were not asked in CCHS 2017-2018 cycle, so for this element we used the 2015-2016 cycle.

Chart 7
Distribution of women and girls who have contemplated suicide by remoteness area category from 2015-2016



Source: Statistics Canada, 2015 to 2016 Canadian Community Health Survey and Remoteness Index Classification.

Mortality

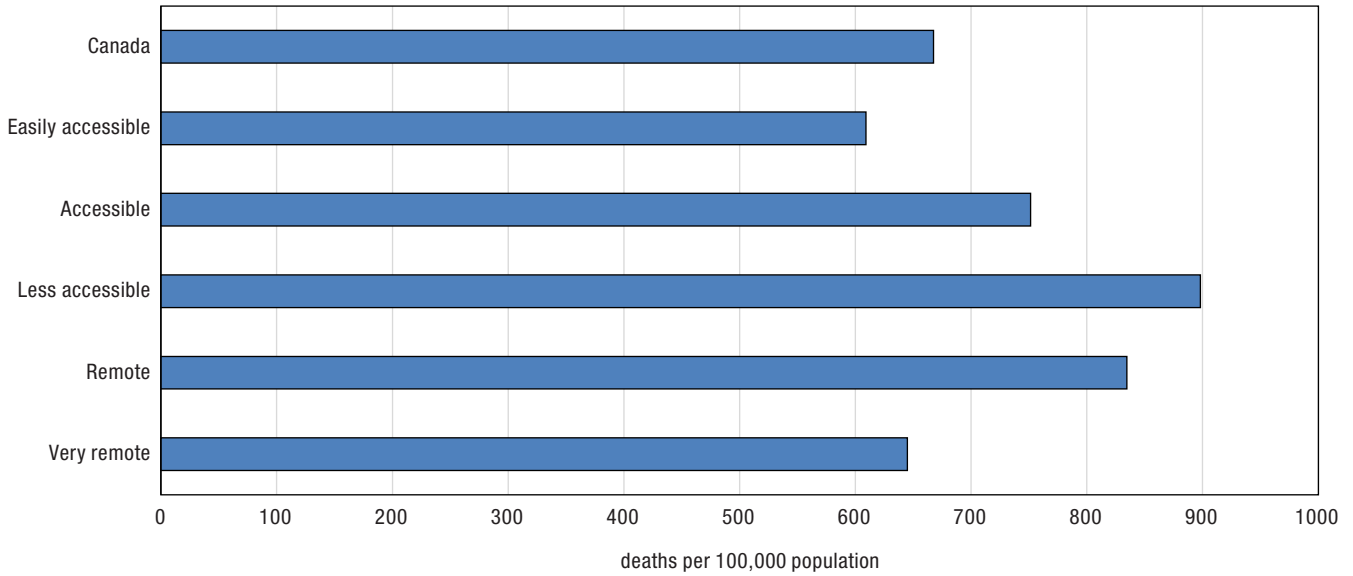
All-cause mortality and suicide-related mortality are significantly higher for women and girls living in more remote areas

The age-standardized mortality rate (ASMR) is a weighted average of the age-specific mortality rate per 100,000 population. It is an indicator of the overall health of the population. It allows for the comparison of rates between populations, health regions, provinces and different time periods by accounting for differences in the age structure of two populations (Statistics Canada, 2017).

According to the Canadian Vital Statistics - Death Database (CVSD), the ASMR for women and girls was 667.5 deaths per 100,000 in Canada between 2015 and 2018 (Chart 8).¹⁴ The lowest ASMR of all remoteness area categories was reported in easily accessible areas (609.2 deaths per 100,000). The rates were 1.2 times higher in accessible areas, 1.5 times higher in less accessible areas, 1.4 times higher in remote areas and almost 1.1 times higher in very remote areas. It should be noted that deaths might be recorded in other geographical areas, as people may need to receive health care in larger population centres. This can be common for people in remote and very remote areas (Menec et al., 2010).

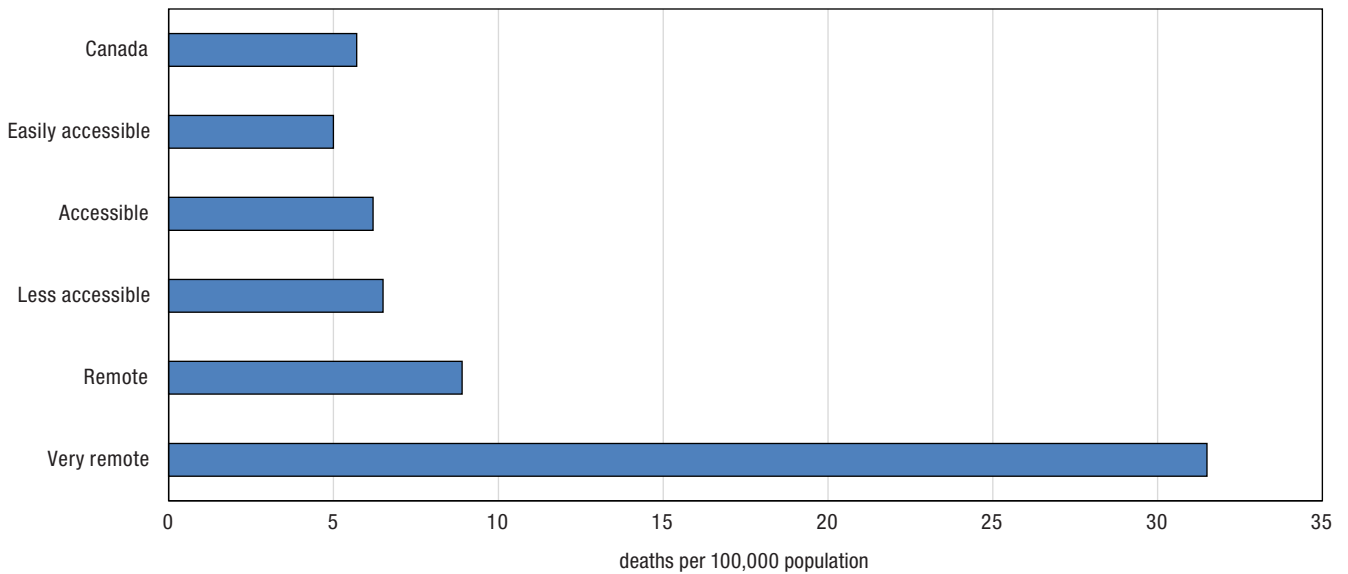
14. Age-standardized mortality, from all causes, was estimated for the remoteness categories by the direct method of standardization, using the general population from the 2011 Census as the standard population with five-year age groupings. Yukon was excluded from all estimations since data for Yukon are not available in the CVSD as of 2017 (CVSD website). The estimations here are all age mortality rates.

Chart 8
Mortality rates among women and girls by remoteness area category from 2015 to 2018



Source: Statistics Canada, 2015 to 2018 Canadian Vital Statistics - Death Database and Remoteness Index Classification.

Chart 9
Suicide mortality rates among women and girls by remoteness area category from 2015 to 2018



Source: Statistics Canada, 2015 to 2018 Canadian Vital Statistics - Death Database and Remoteness Index Classification.

Women and girls' mortality rates were also calculated for suicide (intentional harm) across remoteness categories. The suicide ASMR was 5.7 deaths per 100,000 in Canada from 2015 to 2018 (Chart 9). Women and girls living in easily accessible areas had the lowest rate of suicide mortality of all remoteness area categories (5.0 deaths per 100,000), while the more remote communities fared worse. The greatest gap in suicide ASMR was between women and girls living in very remote areas and those in easily accessible areas: the rate in very remote areas was about six times higher than that of easily accessible areas (31.5 deaths per 100,000).

The disparity in both all-cause and suicide mortality observed for women and girls in more remote areas versus those in easily accessible areas is in line with previous research. For instance, the results on suicide are aligned with the findings of previous research which has shown that death from suicide was disproportionately higher in Canadian rural areas than urban regions (Canadian Institute of Health Information, 2006). It should also be noted that while previous studies have shown that suicide deaths were higher among Indigenous women than non-Indigenous women (Kumar and Tjepkema, 2019; Public Health Agency of Canada, 2018), the mortality rates could not be disaggregated by Indigenous identity in the current report because of the lack of information in the CVSD 2015-2018 – though it should be noted that the majority of women and girls residing in very remote areas were Indigenous (Leclerc, 2021).

The leading causes of death are more distinct among women and girls in very remote areas than those in all other remoteness categories

From 2015 to 2018, “cancer,” “unspecified dementia,” “heart disease,” “cerebrovascular diseases or stroke” and “chronic lower respiratory disease” were the five leading causes of death for women and girls in Canada (Table 1).¹⁵ Similar leading causes of death were observed in easily accessible areas, with the exception of “influenza and pneumonia” instead of “chronic lower respiratory disease.” Women and girls in accessible, less accessible and remote areas had the same five leading causes of death as those among women and girls at the national level.

Very remote areas stood in contrast to the other remoteness area categories as only three leading causes of death observed among women and girls in the other remoteness area categories were observed in very remote areas. While “cancer” was the first leading cause of death among women and girls in very remote areas, “suicide” came second and “ill-defined and unknown cause of mortality” came third in rank, followed by “unspecified dementia” and “heart disease.” Overall, in contrast to the data on suicidal thoughts, it appears that death by suicide or intentional self-harm was more common among women and girls living in very remote areas.

15. Cross-tabulations analyses were used to estimate the underlying cause of death disaggregated by remoteness classifications in women and girls in Canada from 2015 to 2018. Then, groupings were used for leading cause of death based on the list that was developed and groupings that have been used by the National Center for Health Statistics of the United States. The underlying cause of death is presented by International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10) codes United States. For more information about the leading cause of death, please refer to Statistics Canada. [Table 13-10-0394-01 Leading causes of death, total population, by age group.](#)

Table 1
The five leading causes of death and the relative rates among women and girls in Canada by remoteness area category from 2015 to 2018

Regions	Rank	Cause	Rate %
Canada	1	Cancer	10.9
	2	Unspecified dementia	8.9
	3	Heart disease	8.1
	4	Cerebrovascular diseases or stroke	3.4
	5	Chronic lower respiratory disease	2.5
Easily accessible areas	1	Dementia and Alzheimer's disease	12.1
	2	Cancer	11.0
	3	Heart disease	8.3
	4	Cerebrovascular diseases or stroke	3.1
	5	Influenza and pneumonia	2.2
Accessible areas	1	Cancer	10.8
	2	Unspecified dementia	8.6
	3	Heart disease	7.8
	4	Cerebrovascular diseases or stroke	3.6
	5	Chronic lower respiratory disease	2.8
Less accessible areas	1	Cancer	11.0
	2	Heart disease	8.0
	3	Unspecified dementia	7.4
	4	Cerebrovascular diseases or stroke	4.0
	5	Chronic lower respiratory disease	3.1
Remote areas	1	Cancer	10.7
	2	Heart disease	7.4
	3	Unspecified dementia	6.7
	4	Cerebrovascular diseases or stroke	4.0
	5	Chronic lower respiratory disease	3.1
Very remote areas	1	Cancer	6.6
	2	Suicide or intentional self-harm	4.0
	3	Ill-defined and unknown cause of mortality	3.9
	4	Unspecified dementia	3.4
	5	Heart disease	3.0

Source: Statistics Canada, 2015 to 2018 Canadian Vital Statistics - Death Database and Remoteness Index Classification.

Conclusion

This study uses the new Remoteness Index (RI) classification, linked with the Canadian Community Health Survey (CCHS) and Canadian Vital Statistics - Death Database (CVSD) from 2015 to 2018, to further disaggregate data related to women and girls by remoteness area categories and better describe variations related to this population's health and well-being.

In general, women and girls living in more remote areas (less accessible, remote and very remote areas) fell behind their counterparts living in more accessible areas (easily accessible and accessible areas) in several health outcomes, including perceived health, physical activity, access to health services (such as regular health care providers), perceived mental health, consultation with mental health professionals and all-cause mortality and suicide mortality rates.

Women and girls in very remote areas were further distinguished from those in less accessible and remote areas by several health outcomes. Compared with their counterparts in those remoteness categories, women and girls in very remote areas had the lowest rates of very good or excellent perceived health and mental health and reported the lowest rate of physical activity at or above the recommended level. Significantly higher proportions of good perceived health and mental health, as well as the insignificant gap in proportions of fair or poor perceived health and mental health, demonstrated a shift from very good or excellent condition to good condition for both health indicators among women and girls living in very remote areas. Additionally, women and girls in very remote areas experienced large disparities in accessing health services, such as an exceptionally low number of people who had a regular health care provider. A distinct gap was observed in accessing health services in very remote areas compared to other communities. Unavailability of a regular health provider in the area was reported as the main barrier by women and girls living in very remote areas who did not have a regular health care provider – at twice the rate of those living in other categories. Finally, a substantially higher rate of age-standardized suicide mortality was observed among women and girls living in very remote areas, compared to all other remoteness categories.

Health inequalities were more pronounced for Indigenous women and girls across the remoteness categories. Disparities were observed in more remote areas in terms of physical activity and consultation with mental health professionals. In very remote areas, the prevalence of Indigenous women and girls who reported very good or excellent perceived health and very good or excellent mental health were the lowest of all remoteness area categories. With respect to mental health, less than half of Indigenous women and girls living in very remote areas reported very good or excellent mental health, as opposed to all other level of remoteness where the majority of Indigenous women and girls reported very good or excellent mental health. The shift from very good or excellent to good perceived health and mental health was observed among Indigenous women and girls in very remote areas, similar to all women and girls in very remote areas. In addition, there was a substantial gap in reported access to a regular health care provider between Indigenous women and girls living in very remote areas and those living in other remoteness areas. In contrast, the prevalence of suicidal thoughts was lower among Indigenous women and girls in more remote communities. Consideration should be given to the fact that, as explained earlier, data for estimations of suicidal thoughts came from the CCHS, which did not cover some populations, including those on reserves and other Indigenous settlements. In addition, the estimation periods were not the same; it was from 2015 to 2016 for suicidal thoughts and from 2015 to 2018 for the leading causes of death. The increase of the suicide mortality from remote to very remote areas could be the result of a lack of mental health providers or culturally/traditionally appropriate mental health services for the communities (Kumar and Tjepkema, 2019).

Accessibility to health care services plays an important role in the health and well-being of women and girls, and the lack of accessibility of health services in more remote communities could impact prevention, treatment and overall health equalities, especially for Indigenous women and girls who are overrepresented in these areas (Shi, 2012; Statistics Canada, 2020).

In addition to the lack of service availability in more remote areas, the health inequalities observed for Indigenous women and girls may also be connected to some key factors other than geographical isolation. The separation of Indigenous peoples from their lands and resources, colonization and displacement of the population into uninhabitable remote communities, systemic racism and lack of economic investments are among key elements that have contributed to marginalization and, consequently, certainly to the disproportionate health problems among Indigenous women and girls (Indigenous and Northern Affairs Canada, 2018; Public Health Agency of Canada, 2018). It should also be noted that for many Indigenous peoples and communities, health and wellness require a holistic

perspective, including availability of traditionally, culturally and spiritually appropriate health services as well as policies and services to promote physical, spiritual and mental health (Baba, 2013; Allen et al., 2020; Indigenous Services Canada, 2021).

Finally, many estimations for the population of women and girls in easily accessible areas were similar to those observed at the national level, perhaps because a large proportion (68.5%) of women and girls lived in easily accessible areas (Leclerc, 2021).

The present study has some limitations. Among the key ones are lack of data on on-reserve population in the CCHS, lack of information on Indigenous identity in the CVSD, and lack of information on the availability and accessibility of holistic and culturally and traditionally safe health services in remote or very remote areas. Additionally, due to insufficient sample size, the impact of community factors, such as language, expenses and transportation barriers, on help-seeking behaviours for health and mental health, as well as categories of regular health provider available (e.g. general practitioners, specialists or nurse practitioner exclusively) for women and girls in Indigenous communities, could not be examined.

The large variations in health outcomes across remoteness categories, and particularly in very more remote areas, highlight the relevance of using refined remoteness categories in Canada. This is necessary for developing adequate plans and policy approaches that aim to increase, monitor, improve and better understand the health of women and girls in Canada, and prioritize the areas disproportionately impacted.

Data sources, methods and definitions

Data sources

Using the 2015-2016 and 2017-2018 cycles of the Canadian Community Health Survey (CCHS), the Canadian Vital Statistics - Death Database (CVSD) from 2015 to 2018, and the updated Remoteness Index (RI) classification, this third paper of the series looks at the health and well-being of women and girls by the relative remoteness of their communities.

Definitions and measures

Canadian Community Health Survey (CCHS)

The CCHS is a set of ongoing national cross-sectional surveys conducted by Statistics Canada to collect information on health determinants, health status and health care utilization of the Canadian population aged 12 years and over. This excludes people living on reserves and in other Indigenous settlements in the provinces, full-time members of the Canadian Forces, the institutionalized population, children aged 12 to 17 living in foster care, and people living in the Région du Nunavik and Région des Terres-Cries-de-la-Baie-James health regions of Quebec. These exclusions account for less than 3% of the overall population. The survey was initiated in 2000 and was conducted on a two-year collection cycle with a sample of approximately 130,000 respondents, then changed to annual collection with 65,000 participants as of 2007. Both computer-assisted personal interviewing and computer-assisted telephone interviewing methods were used. For more information about the CCHS methodology and questionnaires, please refer to the Statistics Canada [website](#).

Remoteness area categories definition and measure

Canada has a very diverse geographical and sociodemographic composition, and this diversity is reflected in rural Canada as well. However, the line distinguishing urban areas from rural or remote areas is not clearly defined; there are several definitions of urban and rural areas based on Canada's geographical regions and population, as well as the questions/objectives that are being addressed (Du Plessis et al., 2001). Two definitions that are widely used by Statistics Canada are population centres (POPCTRs) and census metropolitan area and census agglomeration influenced zones (MIZs). According to the definition of POPCTRs, all communities with a population of less than 1,000 inhabitants/people and with a population density of less than 400 people per square kilometre are classified as rural (Statistics Canada, 2019). The MIZ method classifies census subdivisions (CSDs) as part of either a census metropolitan area (CMA), a census agglomeration (CA), a MIZ, or the territories. MIZs are areas outside CMAs and

CAs and are defined by the degree of influence of CMAs and CAs on those zones, namely the percentage of the population in MIZs that commutes to work in one or more of the CSDs that are part of the core of the CMA or CA (Statistics Canada, 2016).

As a consequence of Canada's specific geographical and population composition, proximity to centres of economic activity and population agglomerations is an important determinant of regional socioeconomic opportunities and outcomes. Therefore, a geographical classification that takes into account both proximity to and the size of population (or service) agglomerations is necessary for more precise definitions of urban, rural and remoteness (Alasia et al., 2017).

To further distinguish between rural communities — and especially to differentiate those that are remote or very remote from those that are close or closer to centres of population — Statistics Canada developed a new RI that assigns a relative remoteness value to each CSD based on proximity to CAs as a proxy for service accessibility. The RI is a continuous scale from 0 (which indicates the most accessible areas) to 1 (which represents the least accessible [very remote] areas) (Alasia et al., 2017). The RI classification allows for the grouping of CSDs by their relative remoteness into the following five categories: easily accessible; accessible; less accessible; remote; and, very remote areas (Subedi et al., 2020). The cut-offs for the categories were decided according to the distribution of RI values and natural breaks in the data, while also considering the number of CSDs and the population distribution in each class (Subedi et al., 2020). The RI-classified dataset applied in this study uses index values for all CSDs in Canada that reported a population in 2016.

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