

Prevalence of Mental Illness in Canada by Gender, and Geography in 2020 and 2021

Abstract

As the purpose of this study is to investigate the prevalence of mental illness in Canada in 2020 and 2021, it examines the differences in rates based on gender and geography, and it finds that there are variations in rates between provinces and rural areas as well. The research utilized two datasets from the same data collection datasets, Survey on Covid-19 and Mental Health (SCMH). The results indicated that the percentage of the population aged 18 years and older who showed moderate to severe symptoms of generalized anxiety disorders (GAD), major depression disorders (MDD) and post-traumatic stress disorder (PTSD) has increased in Canada from 2020 to 2021, regardless of gender or regions. It has been found that women experience higher rates of mental illness than men, and that there were significant differences in the prevalence rates of mental illness across various regions of the country as well. In this study examining the proportion of people in Canada who reported COVID-19-related PTSD impacts in 2020 and 2021, loss of job/income was found to be an influential major impact of COVID-19 that increased the percentage of individuals who were found to have PTSD by 37.1% to 50.2%. According to these findings, mental health interventions should take gender and geographical factors into consideration when developing and implementing mental health prevention and promotion programs in Canada. Address economic factors for individuals who experience financial stressors and may be at a higher risk of developing mental illness and may encounter barriers to obtaining mental health care.

Background

Studies have consistently shown that mental illness is a significant public health issue in Canada. One study by the Mental Health Commission of Canada found that approximately 20% of Canadians will experience mental illness in their lifetime, and that mental illness is the second leading cause of disability and premature mortality in Canada (MHCC, 2016). As a consequence of the impact of the COVID-19 pandemic, studies have found that there are increased rates of mental illness and distress, including anxiety, depression, and post-traumatic stress disorder (PTSD) in Canada (Statistics Canada, 2021; Wang et al., 2020). The purpose of this study is to gain a better understanding of the distribution of mental illnesses in the Canadian population as well as to identify potential groups at higher risk of mental illness so that interventions and resources can be targeted to these groups. This will provide support and treatment for them. Further, geographical and gender differences in mental health may also be

important factors to consider. In order to identify disparities and address inequities in mental health care access and outcomes, it is important to understand the prevalence of mental illness by gender and geography. This information can be used to improve mental health services and ensure that they reach those who need them most.

Objective

This study provides a comprehensive picture of mental illness prevalence in Canada by gender and geography in 2020 and 2021 to inform public health and policy efforts to address mental health issues in the population. In order to make better mental health interventions, an overview of mental illness distribution across Canada is necessary.

Study Methods

The setting for this research question is based on the Survey of COVID-19 and Mental Health (SCMH), specifically focused on the prevalence of mental illness by gender and geography in 2020 and 2021. We use datasets from Mental Illness during the Pandemic: Survey on COVID-19 and Mental Health (Cycles 1 and 2) and Map of Canadian mental health during the COVID-19 pandemic. The data we used in this study from both datasets are listed as follows:

From Mental Illness during the Pandemic: Survey on COVID-19 and Mental Health (Cycles 1 and 2). Cycle 1 is from September-December 2020, and cycle 2 is from Feb - May 2021

- Proportion (%) screening positive for GAD, MDD, and GAD and/or MDD, by age group, by gender, Canada (Cycles 1 and 2)
- Proportion (%) reporting daily heavy alcohol drinking and cannabis use, by GAD and/or MDD, Canada (Cycles 1 and 2)
- Proportion (%) screening positive for PTSD, by age group, by gender, Canada (Cycles 1 and 2)
- Proportion (%) reporting impacts of COVID-19, by PTSD, Canada (Cycles 1 and 2)

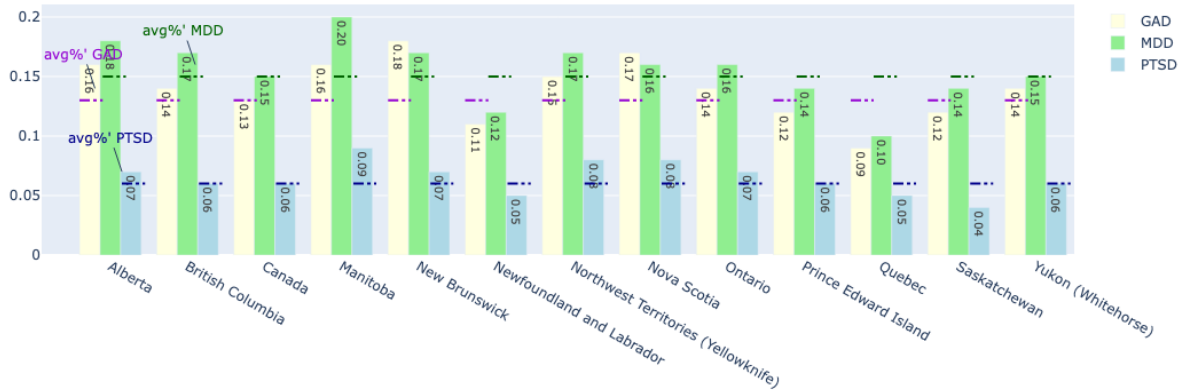
From Map of Canadian mental health during the COVID-19 pandemic

- Percentage (%) of the population aged 18 years and older who showed moderate to severe symptoms of generalized anxiety disorder, by province/territorial capital, all adults/females/males, 2020 and 2021 SCMH - Survey on COVID-19 and Mental Health
- Percentage (%) of the population aged 18 years and older who showed moderate to severe symptoms of major depressive disorder, by province/territorial capital, all adults/females/males, 2020 and 2021 SCMH - Survey on COVID-19 and Mental Health
- Percentage (%) of the population aged 18 years and older who showed moderate to severe symptoms of post-traumatic stress disorder (PTSD), by province/territorial capital, all adults/females/males, 2020 and 2021 SCMH - Survey on COVID-19 and Mental Health

Based on Canada's geographical names in 2020 and 2021, three mental illness data have been merged and labelled for each gender. The two datasets we analyzed in the study are based on the same results of the Survey on COVID-19 and Mental Health (SCMH), September to December 2020 and February to May 2021. We can use the data from Mental Illness during the Pandemic: Survey on COVID-19 and Mental Health (Cycles 1 and 2) as a standard measure of the mental health percentage among three gender groups across Canada (male, female, and all genders). The countrywide value has been added to each province to compare the variance between the proportion of the population aged 18 years and older who showed moderate to severe symptoms of three mental illnesses and the countrywide value. There are six bar charts generated for comparison and contrast. They are divided into three groups: Female VS Male in 2020, Female VS Male in 2021, and all genders in 2020 versus all genders in 2021. We were able to determine the variance of the proportion of the population in each province in Canada. This was done by comparing the differences in the proportion of GAD, MDD, and PTSD based on gender and geography. By providing information about the distribution of mental illness in Canadian populations, we can improve mental health services and ensure that those who need them are reaching out. The limitation of this study is that the datasets were only collected between September and December 2020 and February and May 2021, which may not be representative of the current situation in 2023. Additionally, it might miss some sharp change points in mental health illness that took place during March 2020, when the COVID virus started to be exposed to Canadians, and even after May 2021, Canada is still experiencing the effects of the COVID virus.

Results and Discussion

Prevalence of Mental Health Disorders in Canada in 2020 Across Genders



Prevalence of Mental Health Disorders in Canada in 2021 Across Genders

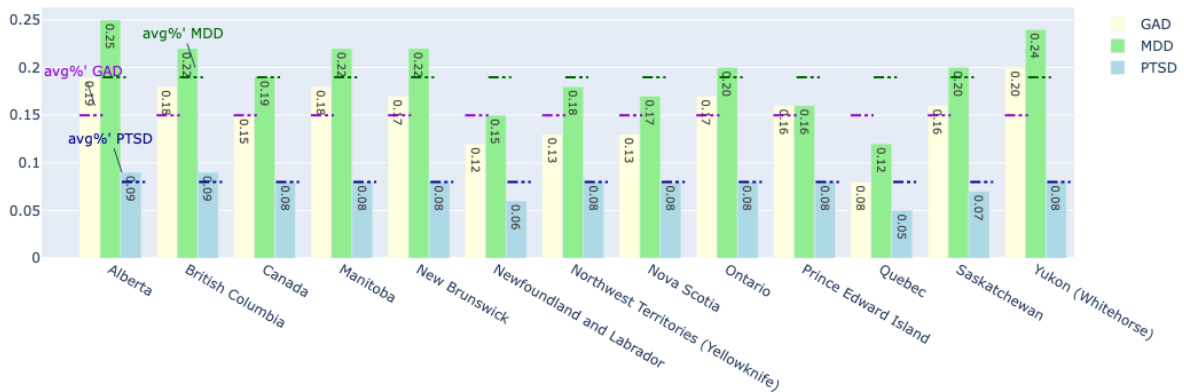
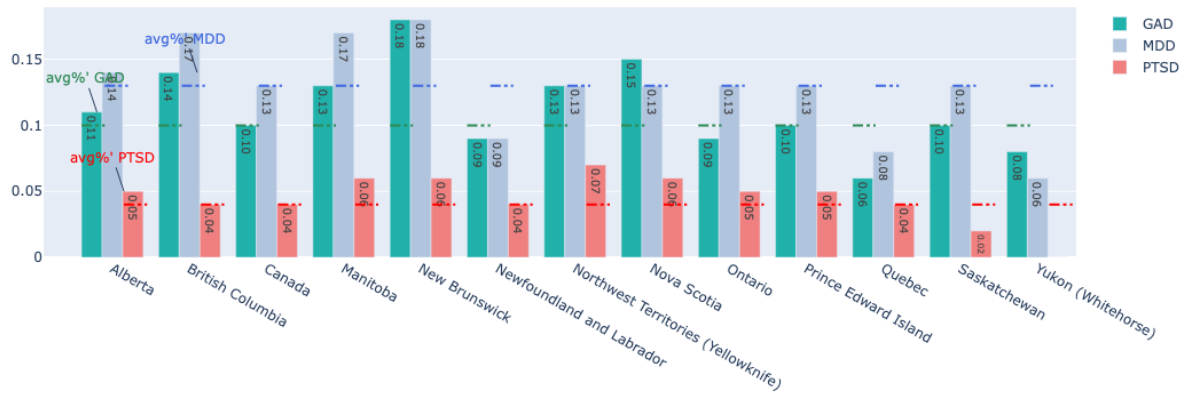


Figure 1: Prevalence of Mental Health Disorders in Canada in 2020 vs Prevalence of Mental Health Disorders in Canada in 2021 Across Genders

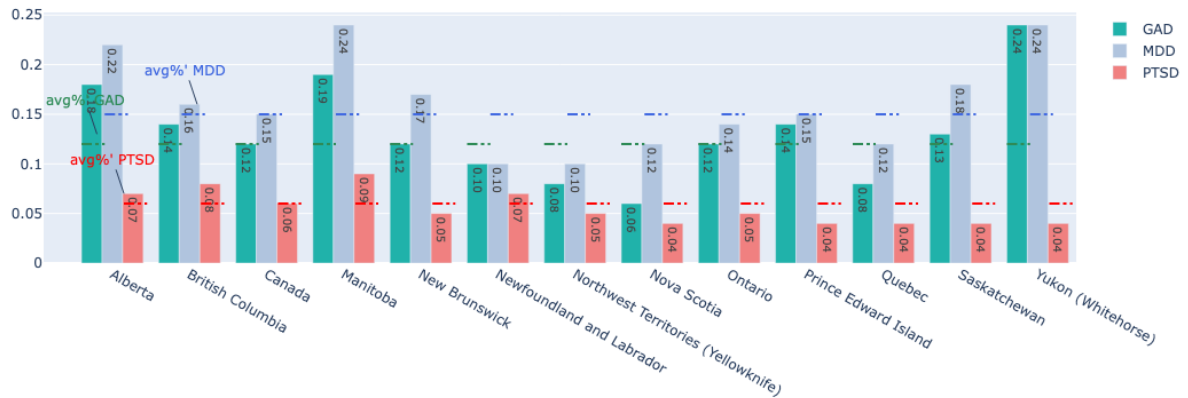
Results:

In 2020, the proportion of the population who screened positive for generalized anxiety disorders is 0.13, major depressive disorders is 0.15 and post-traumatic stress disorder is 0.06. In 2021, the proportion of the population who screened positive for generalized anxiety disorders increased to 0.15, major depressive disorders increased to 0.19 and post-traumatic stress disorder increased to 0.08. From 2020 to 2021, the rate of three mental illnesses increased between 3% and 5% in most provinces and territories in Canada. As a result of the Covid-19 pandemic, major depressive disorder rates in Alberta and Yukon are increasing by more than 7%. Yukon also has the most significant increase in the proportion of the population screening positive for GAD by more than 5%. PTSD rates in Quebec have not changed, and GAD and MDD rates have increased minimally due to Covid-19.

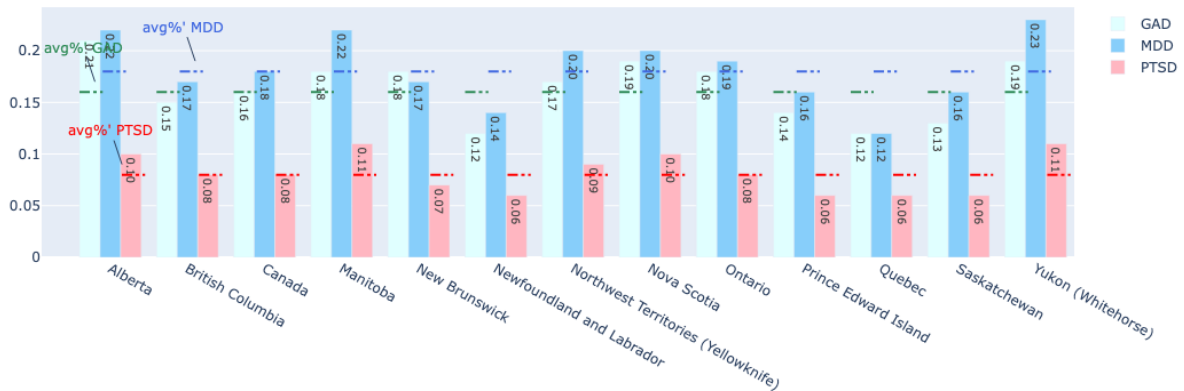
Prevalence of Mental Health Disorders among Men in Canada in 2020



Prevalence of Mental Health Disorders among Men in Canada in 2021



Prevalence of Mental Health Disorders among Women in Canada in 2020



Prevalence of Mental Health Disorders among Women in Canada in 2021

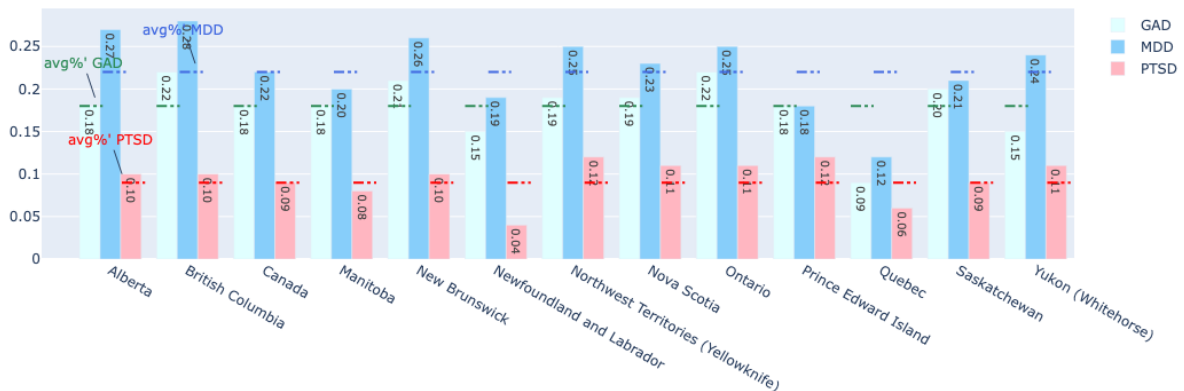


Figure 2: Prevalence of Mental Health Disorders among Men VS Prevalence of Mental Health Disorders among Women in Canada in 2020 and 2021

Results:

In 2020, the proportion of the population among men who screened positive for generalized anxiety disorder is 0.10, major depressive disorder is 0.13 and post-traumatic stress disorder is 0.04.

In 2020, the proportion of the population among women who screened positive for generalized anxiety disorder is 0.16, major depressive disorder is 0.18 and post-traumatic stress disorder is 0.08.

In 2021, the proportion of the population among men who screened positive for generalized anxiety disorder is 0.12, major depressive disorder is 0.15 and post-traumatic stress disorder is 0.06.

In 2021, the proportion of the population among women who screened positive for generalized anxiety disorder is 0.18, major depressive disorder is 0.22 and post-traumatic stress disorder is 0.09.

The Covid-19 pandemic affected the proportion of the population with mental illnesses regardless of gender. More than a 10% increase in generalized anxiety disorder and major depressive disorder among males in Yukon from 2020 to 2021. Most males in provinces/territories of Canada experienced an increase of 1%-5% in their rates of the three mental illnesses between 2020 and 2021, except in Manitoba, where the rate of GAD and MDD decreased when compared to rates in 2020. The rate of PTSD in males from 2020 to 2021 only increased in Alberta, Manitoba and Newfoundland and Labrador and decreased in the rest of the provinces in Canada. There was a significant increase in the proportion of females experiencing major depression in British Columbia and Alberta due to the pandemic. The proportion of the population in females across provinces/territories of Canada who experiences GAD, MDD or PTSD increased between 3%-5% from 2020 to 2021. In contrast to males, the number of females who experience post-traumatic stress disorder increases across provinces and territories in Canada because of Covid. In general, studies indicate that females may experience higher rates of mental illness than males. This study reveals that there are gender differences in the types of mental health problems experienced by men and women, and also that the pandemic had a greater impact on women than on men in 2020 and 2021 as a result of the study.

Based on the results of this study, we would like to draw the conclusion that the pandemic had a significant impact on the prevalence of mental illness in Canada, with women experiencing a more significant increase than men in mental illness rates in the wake of the pandemic. The prevalence of mental illness varies significantly from region to region, particularly in Yukon where people's mental health has been adversely affected by Covid-19, where the prevalence of mental illness is significantly higher. As a result of these findings, the report recommends that mental health interventions in Canada should be specifically tailored to provide mental health services and outreach programs for females in the country. In addition to taking into account the unique challenges posed by the pandemic in Yukon, more mental health support should be provided based on their geographical location.

Reference

Mental Illness during the Pandemic | Public Health Infobase - Public Health Agency of Canada. <https://health-infobase.canada.ca/covid-19/mental-health-survey/data-tables.html>. Accessed 19 Feb. 2023.

Canada, Public Health Agency of. "Map of Canadian Mental Health during the COVID-19 Pandemic." Aem, 20 June 2022, <https://health-infobase.canada.ca/covid-19/mental-health/>.

Deimel, D., Firk, C., Stöver, H., Hees, N., Scherbaum, N., & Fleißner, S. (2022). Substance Use and Mental Health during the First COVID-19 Lockdown in Germany: Results of a Cross-Sectional Survey. *International journal of environmental research and public health*, 19(19), 12801. <https://doi.org/10.3390/ijerph191912801>

Government of Canada, Statistics Canada. Impacts of the COVID-19 Pandemic on Productivity Growth in Canada. 26 May 2021,
<https://www150.statcan.gc.ca/n1/pub/36-28-0001/2021005/article/00004-eng.htm>.