### At-a-glance

# Canadian Chronic Disease Indicators, 2019 – Updating the data and taking into account mental health

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#### Abstract

The 2019 edition of the Canadian Chronic Disease Indicators (CCDI) provides recent estimates of the burden of chronic conditions and measures of general health and associated determinants in Canada. Using data from the CCDI and 2017 Canadian Community Health Survey, we explored the relationship between sociodemographic factors and self-reported mental health. Our findings suggest that sex (males vs females: adjusted odds ratio [aOR] = 1.22); age (65–79 vs 35–49 year age group: aOR = 1.48); education (postsecondary graduate vs less than high school: aOR = 1.68); household income adequacy (highest quintile [Q5] vs lowest [Q1]: aOR = 2.25); and immigrant status (recent immigrants vs nonimmigrants: aOR = 2.29) were significantly associated with higher self-reported mental health.

**Keywords:** chronic conditions, mental health, public health, Canada, determinants of health, sociodemographic factors

#### Introduction

The Canadian Chronic Disease Indicators (CCDI) is a resource produced by the Public Health Agency of Canada (PHAC) that captures the burden of chronic conditions, and measures of general health and associated determinants. The CCDI is updated annually and is made publicly available through the CCDI summary document, Quick Stats (Table 1), and in the interactive CCDI Data Tool (https://infobase.phac-aspc.gc.ca/ccdi-imcc/).

The CCDI comprises six domains: (1) social and environmental determinants; (2) maternal and child health risk and protective factors; (3) behavioural risk and protective factors; (4) risk conditions; (5) disease prevention practices; and (6) health outcomes/status. Self-reported mental health status is a measure within the general health indicator group of the health outcomes/status domain of the CCDI. This At-a-glance article presents the updated 2019 CCDI estimates and explores its

mental health content to provide an indepth look at the distribution of self-reported mental health in Canada.

Mental health is a key outcome reported in the CCDI as it is intrinsically linked to, and has a bidirectional relationship with, physical health, behavioural and emotional processes and social factors. 1-6 PHAC defines positive mental health as "a state of well-being that allows us to feel, think, and act in ways that enhance our ability to enjoy life and deal with the challenges we face." Mental health promotion and mental illness prevention are key PHAC priorities.8 Indicators of mental health, such as self-reported mental health, disaggregated by sociodemographic factors, included in the CCDI Data Tool, provide important data to support policies and programs. These data will also help to inform PHAC's collaborative work in mental health promotion as well as highlight areas for prevention of inequities among diverse populations.

#### Highlights

- The Canadian Chronic Disease Indicators Quick Statistics table shows estimates of the burden of chronic conditions, measures of general health and associated determinants of health.
- In 2017, more than two-thirds (70.3%) of the population in Canada reported having "excellent" or "very good" mental health.
- Age, sex, province of residence, income quintile, education level and immigration status were sociodemographic factors significantly associated with self-reported mental health.

PHAC and Statistics Canada identify selfreported mental health as a measure of the population's general mental health status.9 Consistent with the PHAC Positive Mental Health Surveillance Indicator Framework (PMHSIF), the CCDI includes an estimate of the population in Canada who reported their mental health as "excellent" or "very good." The estimate was assessed using data from the 2017 Canadian Community Health Survey (CCHS) - Annual component. Respondents were asked, "In general, would you say your mental health is...?" Response options were as follows: "excellent," "very good," "good," "fair" or "poor." For this study, higher mental health includes respondents who reported their mental health as "excellent" or "very good."

This At-a-glance article includes estimates for self-reported mental health disaggregated

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by sociodemographic factors, including age group, sex, province, rural/urban residence, income quintile, education level, Indigenous status, immigration status and length of time since immigration. Estimates were weighted with the survey sampling weight, and variance was estimated using the bootstrap method to account for the complex survey design. An adjusted logistic regression model was used to examine the relationship between sociodemographic factors and self-reported mental health. Reference groups were chosen based on adjusted odds ratios (aORs), not on prevalence rates. The category with the lowest adjusted odds of higher mental health was chosen as the reference group for easy and consistent interpretation. All statistical analyses were executed using SAS Enterprise Guide version 5.1 (SAS Institute Inc., Cary, NC, USA).

#### **Main findings**

Table 1 displays the 2019 CCDI Quick Stats for all indicators. Data from the 2017 CCHS – Annual Component indicate that 70.3% of the population in Canada ( $n=36\,024$ ) self-reported their mental health as "excellent" or "very good." The prevalence of higher mental health reported in previous CCDI Quick Stats ranges from 70.8% in 2016, to 72.5% in 2015 and 71.2% in 2014. [10-12]

#### **Data breakdowns**

Table 2 displays the descriptive characteristics of the population in Canada with higher ("excellent" or "very good") self-reported mental health, which can also be found in the CCDI Data Tool. We found that males aged 12 years or more had a prevalence of higher mental health of 72.7%, while females had a prevalence of 68.1%. The prevalence of higher mental health across all age groups ranged from 63.4% (80+ years) to 73.8% (65–79 years).

The rates of higher mental health also varied across provinces, between 65.9% (New Brunswick) and 73.1% (Quebec). Prevalence of higher mental health was similar for individuals living in rural areas (71.2%) and those living in urban areas (70.1%).

Rates of higher mental health tended to increase with increasing education level (from 57.2% for less than high school to 72.3% for postsecondary graduate) and increasing household income adequacy (from 61.6% at Q1 to 77.3% at Q5). The

prevalence of higher mental health was 73.9% among Inuit, 62.8% among First Nations peoples and 60.3% among Métis people, whereas prevalence of higher mental health was 70.7% among non-Indigenous Canadians.

Nonimmigrants had a prevalence of higher mental health of 69.4%. Prevalence of higher mental health appeared to decrease with length of time in Canada, from 80.6% among recent immigrants (≤ 5 years in Canada) to 71.0% among those who had been in Canada for longer than 10 years.

The odds of higher self-reported mental health were 22% greater for males than for females (aOR = 1.22, 95% confidence interval [CI] = 1.14–1.30). Those aged 12–19 years (aOR = 1.28, 95% CI = 1.12–1.46) and 65–79 years (aOR = 1.48, 95% CI = 1.34–1.63) had greater odds of reporting higher mental health than 35–49 year olds. There were no significant differences in odds between the 20–34, 50–64, 80+ and the 35–49 year age groups.

Quebec was the only province with a statistically significant odds ratio, with odds of higher mental health 41% greater than for Nova Scotia (aOR = 1.41, 95% CI = 1.23-1.61).

Individuals who graduated from high school or from postsecondary institutions had odds of higher mental health that were 32% (aOR = 1.32, 95% CI = 1.16–1.49) and 68% (aOR = 1.68, 95% CI = 1.50–1.88) greater than those who did not graduate from high school. The odds of higher mental health increased in a significant, stepwise fashion with increasing income (aOR $_{\rm Q2}$  = 1.31, 95% CI = 1.19–1.44; aOR $_{\rm Q3}$  = 1.53, 95% CI = 1.38–1.69; aOR $_{\rm Q4}$  = 1.77, 95% CI = 1.58–1.97; and aOR $_{\rm Q5}$  = 2.25, 95% CI = 2.02–2.51).

No significant differences in odds of higher mental health were found by Indigenous status.

Immigrants had greater odds of higher mental health than nonimmigrants; however, the magnitude of this effect decreased with length of time in Canada ( $\leq$  5 years: aOR = 2.29, 95% CI = 1.80–2.90; 6–10 years: aOR = 1.28, 95% CI = 0.99–1.66; > 10 years: aOR = 1.20, 95% CI = 1.08–1.33).

#### Conclusion

Self-reported mental health is one of the general health indicators included in the CCDI, a resource that presents information on the surveillance of chronic conditions in Canada. Based on the logistic regression results, females 12 + years old, individuals in the 35–49 age group, individuals with less than a high school education and/or those in the lowest income quintile group would benefit from targeted mental health promotion interventions.

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#### **Conflicts of interest**

The authors have no conflicts of interest.

## Authors' contributions and statement

MB, EP, TL and MV drafted this Ataglance article. MV analyzed the prevalence estimates for self-reported mental health and conducted the logistic regression model analysis. All authors interpreted the data, and reviewed and/or revised this At-a-glance article.

The content and views expressed in this At-a-glance article are those of the authors and do not necessarily reflect those of the Government of Canada.

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#### TABLE 1

#### **CANADIAN CHRONIC DISEASE INDICATORS**

#### **QUICK STATS, 2019 EDITION**

INDICATOR GROUP	INDICATOR MEASURE(S)	LATEST DATA <sup>a</sup>	DATA SOURCE (YEAR
SOCIAL AND ENVIROR	NMENTAL DETERMINANTS		
Education	% of population that reports having less than a high school education, population aged 20+ years	11.1%	CCHS (2017)
Income	% of population living below low-income cut-offs, after tax, total population	7.8%	CIS (2017)
Childhood poverty	% of children living below low-income cut-offs, after tax, population aged <18 years <sup>b</sup>	6.3%	CIS (2017)
Employment	Average annual unemployment rate (% of labour force that was unemployed during reference period), population aged 15+ years		LFS (2018)
Community belonging	% of population that reports a "very strong" or "somewhat strong" sense of belonging to their local community, population aged 12+ years	69.3%	CCHS (2017)
MATERNAL AND CHIL	D HEALTH RISK AND PROTECTIVE FACTORS		
Diabetes during pregnancy	Rate of pregnant women with diagnosed diabetes (pre-existing and gestational diabetes), women aged 15 to 54 years	99.1 per 1 000 total births <sup>c</sup>	DAD (2017)
Hypertension during pregnancy	Rate of pregnant women with diagnosed hypertension (pre-existing and gestational hypertension), women aged 15 to 54 years	69.6 per 1 000 total births <sup>c</sup>	DAD (2017)
Maternal weight during pregnancy	% of women who report gestational weight gain above recommended Health Canada guidelines, women aged 15 to 55 years	43.7%	CCHS (2017)
Preterm birth	% of live births with a gestational age at birth of less than 37 completed weeks	8.2 per 100 live births	DAD (2017)
Breastfeeding	% of women who report exclusive breastfeeding of their child for at least the first 6 months of life, women aged 15 to 55 years	32.2%	CCHS (2017)
Exposure to second-hand smoke	% of households with children aged $<$ 15 years that report regular child exposure to environmental tobacco smoke at home	1.6%	CTADS (2017)
Family violence	$\%$ of population that reports experiencing before the age of 15 any type of physical or sexual abuse and/or exposure to violence by an adult (18+ years), $^{\rm d}$ population aged 15+ years	34.1%	GSS (2014)
BEHAVIOURAL RISK A	ND PROTECTIVE FACTORS		
24-Hour movement	% of children and youth who meet the Canadian 24-Hour Movement Guidelines for Children and Youth, population aged 5 to 17 years	9.5%	CHMS (2014 to 2015
Physical activity	% of children and youth who meet physical activity recommendations by accumulating at least 60 minutes of moderate-to-vigorous physical activity per day (measured data), population aged 5 to 17 years	39.2%	CHMS (2016 to 2017
	% of adults who meet physical activity guidelines by accumulating at least 150 minutes of moderate-to-vigorous physical activity each week, in bouts of 10 minutes or more (measured data), population aged 18+ years	16.4%	CHMS (2016 to 2017
Sedentary behaviour	% of children and youth who report meeting sedentary behaviour recommendations by spending 2 hours or less per day watching television, DVDs or videos or spending time on a computer, tablet or other hand-held electronic device during leisure-time, population aged 5 to 17 years	53.9%	CHMS (2016 to 2017
Sleep	% of population that reports obtaining the recommended amount of daily sleep, population aged $5+$ years	65.5%	CHMS (2014 to 2015
Nutrition	% of population that reports consuming fruit and vegetables at least 5 times/day, population aged 12+ years	28.7%	CCHS (2017)
	% of children and youth who report drinking sugar-sweetened beverages daily, population aged 5 to 17 years	11.6%	CHMS (2016 to 2017
Chronic stress	% of population that reports life to be "quite a bit" or "extremely" stressful most days in the last 12 months, population aged 12+ years	21.7%	CCHS (2017)
Alcohol use	% of population that reports exceeding low risk alcohol drinking guidelines for chronic health effects, population aged 15+ years	16.1%	CTADS (2017)
Smoking	% of population that reports being current smokers (daily or occasional), population aged 15+ years	15.1%	CTADS (2017)
Drug use	% of population that reported using cannabis at least once a week in the last 3 months, population aged 15+ years	5.9%	CTADS (2017)
Main chronic disease risk factors prevalence	% of population that reports having at least one of four main chronic disease risk factors (tobacco smoking, physical inactivity, unhealthy eating and harmful use of alcohol), population aged 20+ years	88.1%	CCHS (2017)
RISK CONDITIONS			
	% of children and youth who are obese (measured data), population aged 5 to 17 years	10.6%	CHMS (2016 to 2017
Obesity	% of adults that are obese (measured data), population aged 18+ years	26.9%	CHMS (2016 to 2017
Elevated blood glucose	% of population with elevated blood glucose (measured data), population aged 18+ years	6.8%	CHMS (2016 to 2017
Elevated blood cholesterol	% of population with elevated blood cholesterol [TC:HDL-C ratio] (measured data), population aged 18+ years	15.1%	CHMS (2016 to 2017
Hypertension	% of population with diagnosed hypertension, population aged 20+ years	25.5%	CCDSS (2016–17)

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INDICATOR GROUP	INDICATOR MEASURE(S)	LATEST DATA <sup>a</sup>	DATA SOURCE (YEAF
DISEASE PREVENTION	N PRACTICES		
Contact with health	% of population that reports having a regular health care provider, population aged 12+ years	84.6%	CCHS (2017)
Contact with health care professional	% of population that reported consulting a dentist, dental hygienist or orthodontist at least once in the past 12 months, population aged 12+ years	69.3%	CCHS (2016)
Disease screening	% of women who report having had a mammogram at least once in the past 5 years, e population aged 50 to 74 years	84.2%	CCHS (2017)
	% of women who report having had at least one Pap smear test in the past 3 years, e population aged 25 to 69 years	78.4%	CCHS (2017)
	% of population that reports having had at least one fecal occult blood test, colonoscopy and/ or sigmoidoscopy in the recommended time period, population aged 50 to 74 years	67.9%	CCHS (2017)
Vaccination (influenza)	% of population living with a chronic disease <sup>g</sup> that reported having a seasonal flu shot in the past 12 months, population aged 12+ years	48.4%	CCHS (2017)
HEALTH OUTCOMES/	STATUS		
	% of population that reports their health is "very good" or "excellent," population aged 12+ years	61.1%	CCHS (2017)
General health	% of population that reports their mental health is "very good" or "excellent," population aged 12+ years	70.3%	CCHS (2017)
	% of population with diagnosed diabetes, population aged 1+ years	8.8%	CCDSS (2016–17)
	% of population that reports having diagnosed cardiovascular diseases (heart disease or stroke), population aged 20+ years	6.1%	CCHS (2017)
	% of population with diagnosed ischemic heart disease, population aged 20+ years	8.5%	CCDSS (2016–17)
	% of population with diagnosed heart failure, population aged 40+ years	3.7%	CCDSS (2016–17)
	% of population with diagnosed stroke, population aged 20+ years	2.9%	CCDSS (2016–17)
	% of population with diagnosed asthma, population aged 1+ years	11.6%	CCDSS (2016–17)
	% of population with diagnosed chronic obstructive pulmonary disease, population aged 35+ years	10.3%	CCDSS (2016–17)
Morbidity – prevalence	% of population that reports ever being diagnosed with cancer, population aged 12+ years	7.3%	CCHS (2017)
nevalence	% of population that reports ever having symptoms consistent with at least 1 of 6 mental or substance use disorders, hopulation aged 15+ years	33.3%	CCHS – MH (2012)
	% of population that reports having diagnosed mood and/or anxiety disorders, population aged 12+ years	13.4%	CCHS (2017)
	% of population with diagnosed dementia, including Alzheimer disease, population aged 65+ years	6.9%	CCDSS (2016–17)
	% of population with diagnosed osteoarthritis, population aged 20+ years	13.6%	CCDSS (2016–17)
	% of population with diagnosed osteoporosis, population aged 40+ years	11.9%	CCDSS (2016–17)
	% of population that reports having been diagnosed with at least 1 of the 5 major chronic diseases, population aged 20+ years	34.2%	CCHS (2017)
	% of population that reports having been diagnosed with at least 1 of the 10 common chronic diseases, population aged 20+ years	43.7%	CCHS (2017)
Multimorbidity	% of population that reports having been diagnosed with at least 2 of the 5 major chronic diseases, population aged 20+ years	8.9%	CCHS (2017)
	% of population that reports having been diagnosed with at least 2 of the 10 common chronic diseases, population aged 20+ years	18.4%	CCHS (2017)
	Rate of newly diagnosed diabetes cases, population aged 1+ years	603.5 per 100 000	CCDSS (2016–17)
	Rate of newly diagnosed ischemic heart disease cases, population aged 20+ years	598.5 per 100 000	CCDSS (2016–17)
	Rate of newly diagnosed acute myocardial infarction cases, population aged 20+ years	222.2 per 100 000	CCDSS (2016–17)
	Rate of newly diagnosed heart failure cases, population aged 40+ years	535.6 per 100 000	CCDSS (2016–17)
Morbidity – ncidence	Rate of newly diagnosed asthma cases, population aged 1+ years	448.8 per 100 000	CCDSS (2016–17)
	Rate of newly diagnosed chronic obstructive pulmonary disease cases, population aged 35+ years	823.2 per 100 000	CCDSS (2016–17)
	Rate of all newly diagnosed cancer cases, <sup>k</sup> total population	563.6 per 100 000	CCR/NCIRS (2017)
	Rate of newly diagnosed dementia cases, including Alzheimer disease, population aged 65+ years	1 350.9 per 100 000 872.0 per	CCDSS (2016–17)
	Rate of newly diagnosed osteoarthritis cases, population aged 20+ years	100 000 149.8 per	CCDSS (2016–17)
	Rate of newly diagnosed hip fractures, population aged 40+ years  % of population that reports being limited in their activities "sometimes" or "often"	100 000	CCDSS (2016–17)
Disability	due to disease/illness, population aged 12+ years	32.7%	CCHS (2014)

INDICATOR GROUP	INDICATOR MEASURE(S)	LATEST DATA <sup>a</sup>	DATA SOURCE (YEAR)
Mortality	Death rate due to a major chronic disease (diabetes, cancer, cardiovascular diseases, chronic respiratory diseases), total population	475.7 per 100 000	CVSD (2016)
	Death rate due to diabetes, total population	18.9 per 100 000	CVSD (2016)
	Death rate due to cardiovascular diseases, total population	192.9 per 100 000	CVSD (2016)
	Death rate due to chronic respiratory diseases, total population	45.9 per 100 000	CVSD (2016)
	Death rate due to cancer, total population	218.1 per 100 000	CVSD (2016)
	Death rate due to suicide, total population	11.0 per 100 000	CVSD (2016)
	Death rate due to dementia, including Alzheimer disease, total population	69.4 per 100 000	CVSD (2016)
	Death rate within one year of hip fracture, population aged 40+ years that had a hip fracture	215.1 per 1 000	CCDSS (2015–16)
Premature mortality	Probability of dying between ages 30 and 69 years from one of the major chronic diseases (cardiovascular diseases, cancer, chronic respiratory diseases, diabetes)	10.0%	CVSD (2016)
	Probability of dying between ages 30 and 69 years from cardiovascular disease	3.0%	CVSD (2016)
	Probability of dying between ages 30 and 69 years from cancer	6.0%	CVSD (2016)
	Probability of dying between ages 30 and 69 years from chronic respiratory disease	0.7%	CVSD (2016)
	Probability of dying between ages 30 and 69 years from diabetes	0.4%	CVSD (2016)

Abbreviations: CCDSS, Canadian Chronic Disease Surveillance System; CCHS, Canadian Community Health Survey; CCHS-MH, Canadian Community Health Survey – Mental Health; CCR, Canadian Cancer Registry; CHMS, Canadian Health Measures Survey; CIS, Canadian Income Survey; CTADS, Canadian Tobacco, Alcohol and Drugs Survey; CVSD, Canadian Vital Statistics—Death Database; DAD, Discharge Abstract Database; GSS, General Social Survey; HDL-C, high-density lipoprotein cholesterol; LFS, Labour Force Survey; NCIRS, National Cancer Incidence Reporting System; TC, total cholesterol.

Note: Indicators/measures identified as data gaps are prenatal smoking; prenatal alcohol drinking; developmental disorders (including autism spectrum disorder [ASD] and fetal alcohol spectrum disorder [FASD]); social support; resilience; discrimination and stigma; and built environment.

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Visit the Canadian Chronic Disease Indicators "online tool" to view additional data breakdowns (e.g. by sex, trends over time, etc.): https://health-infobase.canada.ca/ccdi/.

<sup>&</sup>lt;sup>a</sup> All rates in this table are crude and based on actual data, unless otherwise stated.

<sup>&</sup>lt;sup>b</sup> Includes all children aged 0 to 17 years both living in and not living in economic families.

<sup>&</sup>lt;sup>c</sup> Total births include live births and stillbirths.

<sup>&</sup>lt;sup>d</sup> Physical abuse includes being slapped/hit/pushed/grabbed/shoved/thrown at/physically attacked at least once by an adult (18+ years); sexual abuse includes forced/attempted forced sexual activity/touching at least once by an adult (18+ years); and exposure to violence includes having seen/heard parents or guardians hit each other or another adult (18+ years). The definition for this indicator changed; estimates are not directly comparable to previously reported estimates.

 $<sup>^{\</sup>mathrm{e}}$  The methodology has changed for this indicator; estimates are not directly comparable to previously reported estimates.

<sup>&</sup>lt;sup>1</sup>This indicator captures individuals (excluding pregnant women) found to have elevated levels of the risk condition measured in a single fasting sample regardless of diagnosis status.

<sup>\$</sup> Chronic diseases include cancer (ever had); diabetes; cardiovascular diseases (heart disease and/or stroke); and chronic respiratory diseases (asthma and/or chronic obstructive pulmonary disease).

h The six mental or substance use disorders include major depressive episode; bipolar disorder; generalized anxiety disorder; and abuse of/dependence on alcohol, cannabis or other drugs

<sup>&</sup>lt;sup>1</sup>The five major groups of chronic diseases include cancer (ever had); diabetes; cardiovascular diseases (heart disease and/or stroke); chronic respiratory diseases (asthma and/or chronic obstructive pulmonary disease); and mood and/or anxiety disorders.

<sup>&</sup>lt;sup>1</sup> The 10 common chronic diseases include heart disease; stroke; cancer (ever had); asthma; chronic obstructive pulmonary disease; diabetes; arthritis; Alzheimer disease or other dementia; mood disorders; and anxiety disorders.

<sup>&</sup>lt;sup>k</sup> These numbers are projected estimates for 2017 that are based on the August 2015 CCR tabulation master file (1992–2013) and the NCIRS (1969–1991).

TABLE 2

Descriptive characteristics and adjusted odds ratio of population with higher self-reported mental health, age ≥12 years, Canada excluding territories

Variable	Percentage of population with self-reported "very good" or "excellent" mental health, weighted, % (95% CI)	aOR (95% CI)
Sex	, <b>3</b> , , , ,	
Females	68.1 (67.2–68.9)	(Ref.)
Males	72.7 (71.8–73.6)	1.22 (1.14–1.30*)
Age		
12–19	73.1 (71.2–75.0)	1.28 (1.12–1.46*)
20–34	68.8 (67.3–70.3)	0.99 (0.89–1.10)
35–49	69.8 (68.5–71.2)	(Ref.)
50–64	69.9 (68.6–71.2)	1.05 (0.96–1.15)
65–79	73.8 (72.6–75.1)	1.48 (1.34–1.63*)
80+	63.4 (60.6–66.3)	1.06 (0.90–1.24)
Province, age-standardized		
British Columbia	67.0 (65.2–68.7)	0.98 (0.85–1.13)
Alberta	69.3 (67.6–71.0)	1.01 (0.88–1.17)
Saskatchewan	67.0 (64.0–70.1)	1.02 (0.85–1.22)
Manitoba	68.1 (65.3–71.0)	1.10 (0.92–1.32)
Ontario	69.7 (68.4–71.0)	1.03 (0.90–1.18)
Quebec	73.1 (71.8–74.4)	1.41 (1.23–1.61*)
New Brunswick	65.9 (62.4–69.4)	1.03 (0.85–1.24)
Nova Scotia	66.1 (63.2–69.1)	(Ref.)
Prince Edward Island	68.9 (64.9–72.8)	1.02 (0.83–1.26)
Newfoundland and Labrador	69.3 (65.8–72.8)	1.19 (0.98–1.43)
Urban/Rural status		
Rural	71.2 (70.1–72.3)	1.01 (0.94–1.09)
Urban	70.1 (69.4–70.8)	(Ref.)
Highest level of education household		
Less than high school	57.2 (54.9–59.4)	(Ref.)
High school graduate	64.2 (62.5–65.9)	1.32 (1.16–1.49*)
Post-secondary graduate	72.3 (71.6–73.1)	1.68 (1.50–1.88*)
Household income adequacy		
Q1 (lowest)	61.6 (60.1–63.1)	(Ref.)
Q2	67.7 (66.2–69.1)	1.31 (1.19–1.44*)
Q3	70.9 (69.5–72.4)	1.53 (1.38–1.69*)
Q4	73.7 (72.3–75.0)	1.77 (1.58–1.97*)
Q5 (highest)	77.3 (76.0–78.6)	2.25 (2.02–2.51*)
Indigenous status		
Non-Indigenous	70.7 (70.0–71.3)	(Ref.)
First Nations	62.8 (58.5–67.1)	0.89 (0.73–1.09)
Métis	60.3 (56.2–64.4)	0.73 (0.61–0.88)
Inuit	73.9 (55.8–92.0)	1.37 (0.51–3.63)
Multiple Indigenous status	39.5° (15.0–64.1)	0.29 (0.07–1.23)

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# TABLE 2 (continued) Descriptive characteristics and adjusted odds ratio of population with higher self-reported mental health, age ≥12 years, Canada excluding territories

Variable	Percentage of population with self-reported "very good" or "excellent" mental health, weighted, % (95% CI)	aOR (95% CI)
Immigrant status		
Nonimmigrant	69.4 (68.7–70.1)	(Ref.)
≤5 years in Canada	80.6 (77.0–84.1)	2.29 (1.80–2.90*)
6–10 years in Canada	71.8 (67.2–76.5)	1.28 (0.99–1.66)
>10 years in Canada	71.0 (69.1–72.9)	1.20 (1.08–1.33*)

Abbreviations: aOR, adjusted odds ratio; CI, confidence interval; Ref., reference group.

Note: Logistic model adjusted for sex, age, province, urban/rural residence, education, household income, Indigenous status and immigrant status. \*p < 0.05.

<sup>&</sup>lt;sup>o</sup> As per the CCHS sampling variability guidelines, prevalence estimates should be interpreted with caution, as the coefficient of variation is between 25.1% and 35.0%.