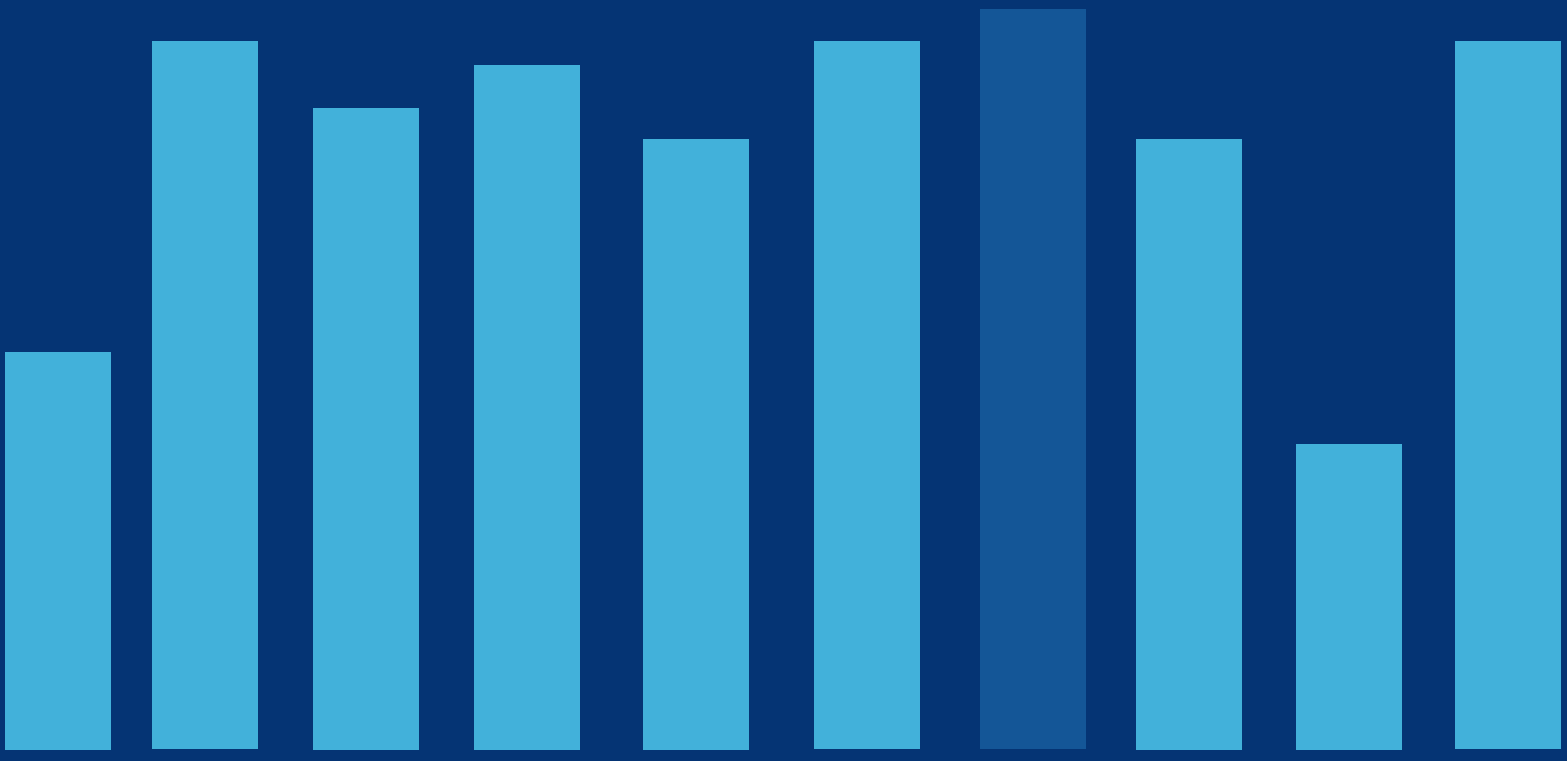


# Population Differences in Three Common Chronic Conditions in B.C.

Technical Report



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# Preamble

## Content warning

This report may trigger unpleasant memories, feelings, and thoughts related to systemic racism, colonialism and oppression of racial groups, Indigenous people, and gender-diverse people.

[B.C. Mental Health & Crisis Response Line](#) is available for emotional support, information, and resources specific to mental health at 310-6789 (no area code needed). This service works 24 hours a day, seven days a week and is available in 140 languages.

The [KUU-US Crisis Line](#) provides Indigenous-specific mental health support at 1-800-588-8717. This service is available 24 hours a day, seven days a week, toll-free from anywhere in British Columbia.

## Territorial acknowledgment

This report was prepared by B.C. government employees who work on the ancestral territories of the ləkʷəŋən (Lekwungen) speaking People, known today as the Esquimalt and Songhees Nations, who have kept their homelands strong. We are grateful to live here.

## Distinctions-based approach

The B.C. government is guided by a distinctions-based approach to Indigenous data sovereignty and self-determination. We recognize and respect the distinct rights of First Nations, Inuit and Métis people. We are working to address the consequences of colonial policies which have had lasting effects on all Indigenous Peoples living in the province.

## Team positionality statement

In the spirit of reflection on the underlying assumptions and biases that often unintentionally reinforce structures of power or oppression, we (the authors) hereafter acknowledge the broader context in which this work was conducted.

We (team members) come from various disciplinary health and statistics backgrounds, and work as employees of the Government of British Columbia. About half of us are descendants of white settlers, born and raised in Canada, while the other half of our team has diverse racial identities. Many of us immigrated to Canada within the past five years and did not have English as a first language. Our team has substantial experience with health equity analyses, including gender inequalities. However, we are all cisgender (mostly women) and none of our team members identify as Indigenous. As such, our team does not have lived experience with the many barriers faced by some population groups in this analysis.

We acknowledge that [health inequalities](#) cannot be addressed without a deeper understanding of the underlying historical, social, economic, and political factors. This initial release has a narrow scope. Further analyses are needed to better understand the underlying causes of the inequalities observed.

## Note on use

The findings presented in this report focus on responses to the [BC Demographic Survey](#), for the subset of people in British Columbia who participated in the survey. Because of that, these findings differ from other publicly released statistics that are based on full administrative datasets representing all people living in B.C.

More work is needed to understand health outcomes and inequities for different population groups. This report presents a first step in analysis using BC Demographic Survey responses. We hope it serves as a starting point for discussion with key partners who want to become involved in working with this survey data to explore these or other topics for future research.

These findings do not constitute official statistics on the performance of the health-care system. They should be used to guide further inquiries into the topics discussed in this report.

# Executive summary

Everybody deserves access to respectful and culturally safe health services free from discrimination. However, recent reports such as [In Plain Sight](#) have shown that systemic racism in B.C.'s health-care system still affects many Indigenous people. Other reports in the province and Canada have also demonstrated discrimination in health care for racialized and gender diverse people.

To address this issue, first we need to better understand what is happening. That's why Indigenous Governing Entities and the [Anti-Racism Data Committee](#) identified the health sector as one of our [anti-racism research priorities](#), which were released in May 2023.

## What is this research about?

In this first phase, we looked at the [prevalence](#) of three common chronic conditions as one step to start a larger discussion about unequal opportunities for prevention and management of [chronic disease](#). We've broken this information down by Indigenous identity, racial identity, and gender identity as evidence shows that these are some of the populations that experience discrimination in Canadian health-care systems.

We will use the term 'prevalence' to report on the proportion of people living with a condition. Higher prevalence generally reflects a greater burden of the disease and related health-care needs. However, it can also reflect that some population groups are more likely to have access to health services, seek care and have a diagnosed condition. Lower disease prevalence based on health contacts can be due to lower burden of disease in a subgroup but may also reflect barriers in access to health care, leading to undiagnosed conditions and underestimation of the disease prevalence.

In this report, differences will be described but the contributors to the differences will not be discussed.

## How are we doing this research?

We combined responses from the [BC Demographic Survey](#) with health data that we already hold.

For the first phase of research, we began with three common chronic conditions affecting people of all ages: [asthma](#), [diabetes](#), and [mood and anxiety disorders](#). Our first goal is to learn which demographic groups are disproportionately affected by these chronic conditions. We will use these learnings to guide future research to further understand what is contributing to these differences and expand to other health conditions and services. We have strived to present findings in a way that can inform initiatives to reduce inequalities in diagnosing and treating chronic health conditions and to promote disease prevention.

This work was reviewed by the Anti-Racism Data Committee and provided to Indigenous Governing Entities interested in consultation and cooperation for comment.

This analysis looks at the disproportionate disease prevalence impacting groups who have documented experiences of discrimination when accessing care. Indigenous, racial and gender identity are sources of strength and resilience, not risk factors for chronic disease. This analysis uses age-standardized rates only and does not factor in other variables such as socioeconomic status.

## What did we find?

This analysis used age-standardized rates and found the chronic-disease rates for some population groups could be different from the B.C. rate.

**Diabetes.** Among Indigenous populations, prevalence of diabetes ranged from 10.1% among Inuit, 11.8% among First Nations, and 12.1% among Métis respondents. Among racial identity groups, diabetes prevalence ranged from 7.8% for European respondents to 16.6% among Filipino respondents. Diabetes prevalence ranged across respondents who identified as non-binary (12.1%), transgender (14.7%), and Two-Spirit (12.7%). Prevalence for cisgender men/boys was 9.2%, and 7.9% among cisgender women/girls.

**Asthma.** For Indigenous populations, the prevalence of asthma was 7.5% among Métis, 8.8% among Inuit, and 9.6% among First Nations respondents. Asthma prevalence ranged from 1.8% for respondents who identified as Korean to nearly 6% for respondents who identified as European (5.8%) and Arab (5.9%, though this rate was not statistically significant from the B.C. population average). Prevalence of asthma ranged across respondents who identified as non-binary (10.4%), transgender (8.2%) and Two-Spirit (11.5%). Prevalence for cisgender women/girls was 5.9%, and 4.3% among cisgender men/boys.

**Mood and Anxiety Disorders.** For Indigenous populations, prevalence of mood and anxiety disorders ranged from 14.2% among Inuit, 20.8% among First Nations, and 21.1% among Métis respondents. Among racial identity groups, prevalence ranged from 4.9% among Korean respondents to 17.5% among European respondents. Across gender identity and Indigenous Two-Spirit groups, prevalence was notably higher among respondents who identified as non-binary (34.3%), transgender (31.5%), and Indigenous Two-Spirit (33.5%). Prevalence among cisgender women/girls was 17.5%, and 9.0% among cisgender men/boys (17.5% vs 9.0%, respectively).

## Resources and services available

Primary care providers can support patients with chronic disease prevention and management. If you do not have a primary care provider, you can call 8-1-1 (service in multiple languages) or access the online link to [Health Connect Registry](#) to register yourself and family members to get a doctor or nurse practitioner.

There are services available to support health and wellness in culturally specific and gender sensitive ways. While not exhaustive, some examples include:

- First Nations Health Authority is a [health and wellness partner](#) to every First Nations person living in B.C. It provides a wide range of services to support individuals and

communities including in [prevention and management of chronic conditions](#). They also offer a [2SLGBTQIA+](#) resource list.

- Métis Nation British Columbia provides health and other [programs and services](#).
- [InterCultural Online Health Network \(iCON\)](#) is a health promotion initiative that supports multicultural communities, patients, and caregivers across B.C. to optimize chronic disease prevention and self-management.
- [Trans Care BC](#) provides support for gender-affirming health and wellness.

Regional health authorities also have gender-based, Indigenous and cultural care specialties with the health authority providing care for each community listed [here](#).

There are also provincial guidelines to support education, diagnosis and management related to different health conditions.

- Guidelines for [diabetes care](#), that include recommendations for physicians to recognize the importance of culture, family and traditional medicines as part of treatment plans. There are [additional resources](#) to create support plans for families with kids in school with diabetes.
- [Asthma Action Plans](#) are available for adults and children and provide information on risk factors, diagnosis, and management and self-management such as medication guidance and inhaler technique.
- For mental health conditions there are [resources available](#) to help people understand their mental-health needs. Free and low-cost services to support people living with mental-health conditions are available at [HelpStartsHere](#).

### **What are the next steps?**

There are many factors that may impact health and well-being and increase the risk of developing chronic diseases. For future research, we will expand the analysis to explore how other factors are contributing to the differences in disease prevalence across population groups. We want to look closely at factors that may be contributing to underdiagnosis of diseases in certain population groups, such as challenges accessing services in remote areas or avoiding seeking care in population groups that are telling us they do not feel the health-care system is culturally safe.

Lastly, good management of chronic diseases is associated with better health outcomes, so we also want to understand where we need to improve our health-care system so that everyone managing a chronic disease has access to the culturally safe care they need that is free from discrimination.

# Introduction

## Supporting anti-racism research in B.C.

Anti-racism research can help us to better understand and address the impacts of systemic racism and its root causes. To do this research in a safe and meaningful way, we need strong policy structures, access to the right data, and guidance on where to focus our efforts.

In June 2022, the Province passed the [Anti-Racism Data Act](#) that built a policy foundation for anti-racism research. The Act enables core government ministries and agencies to collect and use demographic information—such as age, racial identity, and gender—for the purpose of research that aims to help identify and eliminate systemic racism in government programs and services and advance racial equity.

In 2023, the Province announced [10 anti-racism research priorities](#) to guide anti-racism research in the province for the next two years. Three priorities were identified by Indigenous Peoples<sup>1</sup> and seven by the [Anti-Racism Data Committee](#).<sup>2</sup> These priorities reflect calls to action from communities impacted by systemic racism and recommendations from the B.C. Human Rights Commissioner and community reports.

Because the way research is carried out matters, Indigenous Peoples also recommended researchers adopt a distinctions-based approach that supports Indigenous data sovereignty and commitment 3.14 of the [Declaration Act Action Plan](#). Other [process commitments](#) made for anti-racism research include being transparent, minimizing harms to communities while using the data to advance social justice, taking an intersectional lens, and involving racialized groups.

To provide the data needed to start research, in June 2023 BC Stats launched the [BC Demographic Survey](#). The survey collected demographic information of more than 200,000 people across the province in a safe and centralized way.

Data from the survey is now available to approved government and external researchers through the [Data Innovation Program](#), which is based on the globally recognized [Five Safes privacy and security model](#). The survey also included commitments to Indigenous data sovereignty. To facilitate shared governance, individuals who identified as Indigenous (First Nations, Métis and/or Inuit) were provided the opportunity to consent to disclosing their responses in an identifiable form with Indigenous governing entities or Indigenous organizations of their choice.

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<sup>1</sup> This includes Indigenous Governing Entities, and organizations like the First Nations Leadership Council. The Freedom of Information and Protection of Privacy Act defines Indigenous Governing Entity as an Indigenous entity that exercises governmental functions and includes but is not limited to an Indigenous governing body as defined in the Declaration on the Rights of Indigenous Peoples Act.

<sup>2</sup> The committee was established by the Anti-Racism Data Act. It consists of 11 members who are appointed by the minister responsible for the Act for up to six years. The committee helps develop research priorities and guide other work under the Act.



This technical report describes the progress made in an initial phase of anti-racism research that focused on understanding of the health status and health outcomes of people living in British Columbia. This is one of the first three anti-racism research projects that were prioritized by partners and initiated in the fall of 2023. This technical report is a part of the 2024 release of statistics as outlined in [Section 19](#) of the Anti-Racism Data Act, and in consultation and cooperation with Indigenous Peoples ([Section 20](#) of the Act).

## Health inequalities in B.C.

[Health inequalities](#), racial discrimination, and anti-Indigenous racism in B.C.'s health care exist<sup>3</sup> and need to be eliminated. To address health inequalities, we need to understand the unique context and experiences of the diverse population subgroups living in the province.<sup>4</sup>

In British Columbia, the increasing [prevalence](#) of chronic conditions is a concern that requires attention and intervention.<sup>5</sup> Chronic conditions impact quality of life and life expectancy.<sup>6</sup> Like other health outcomes in B.C., the burden of [chronic disease](#) is not equitably distributed among population groups.<sup>7</sup>

Indigenous, racialized, and gender-diverse communities are disproportionately impacted by chronic conditions.<sup>8</sup> However, racial, Indigenous, and gender identities are sources of strength and resilience, not risk factors for chronic disease.

While the Province is tracking the prevalence of chronic conditions for the population<sup>9</sup>, and previous reports have shown estimates for First Nations<sup>10</sup> and Métis people<sup>11</sup>, little information exists across distinct racial groups, the Inuit, and gender identity groups.

This research project aims to fill the existing knowledge gap by producing chronic disease prevalence statistics for these populations.

## Research objective and questions

The initial phase of this research quantifies the prevalence of common chronic conditions across patient subpopulations in B.C. This information will help improve understanding of the patterns of health-care use in these populations and act as a basis for future phases of research on chronic

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<sup>3</sup> African Arts and Culture Community Contributor Society (2022); Chasey, Pederson & Duff (2009); Health Officers Council of BC (2008); Turpel-Lafond (2020).

<sup>4</sup> Mador (2010).

<sup>5</sup> British Columbia Ministry of Health. [Chronic Disease Dashboard](#).

<sup>6</sup> Harper, Rushani, & Kaufman (2012); Tobias et al. (2009).

<sup>7</sup> Bromeling, Watson, & Black (2005); Long (2010); Provincial Health Services Authority, (2011).

<sup>8</sup> Bromeling, Watson, & Black (2005); Health Canada (2024); Long (2010); Provincial Health Services Authority (2011); Sexual and Gender Diversity Health Equity Collaborative. (2021); Casey (2019).

<sup>9</sup> British Columbia Ministry of Health. [Chronic Disease Dashboard](#)

<sup>10</sup> First Nations Health Authority & Office of the Provincial Health Officer (2021a & 2021b).

<sup>11</sup> Métis Nation British Columbia & Office of the Provincial Health Officer (2021).

disease. This information can help us make changes to the health-care system, so it works better for everyone.

Typically, health administrative data in B.C. is published at varying levels of geography, and by age and sex at birth (male/female). This study is the first time that the [B.C. Chronic Disease Registry](#) information has been linked to demographic information to enable reporting across diverse gender identity- and racial identity-based populations. It is also the first time this data can be reported for the Indigenous Two-Spirit population. Previous analyses have been done with linkage to the Chronic Disease Registry to study First Nations and Métis populations and these can be referenced and compared to this study's findings<sup>12</sup>.

The research questions used to guide the initial phase of work include:

- What is the prevalence of common chronic diseases in this cohort?
- How do the survey respondents compare to the B.C. population in terms of chronic disease prevalence?
- Does chronic disease prevalence differ by Indigenous identity, racial identity, and gender identity?

## About this report

The objective of this work was to identify health inequalities across Indigenous and racialized populations for selected chronic illnesses by linking the BC Demographic Survey with the B.C. Chronic Disease Registry (see [Table 1](#) below for more information). This first release provides descriptive statistics only. Descriptive statistics provide simple summaries about the sample and the observations that have been made. More in-depth research is needed to identify the causes of the differences observed.

This report also included gender identity in the scope given the lack of information in the province; and evidence that gender-diverse people have experienced negative interactions with health-care providers that also prevent them from seeking care, seeing care as approachable, or receiving care. Evidence in B.C. has demonstrated that this is particularly the case for Indigenous and racialized gender diverse people.

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<sup>12</sup> First Nations Health Authority & Office of the Provincial Health Officer (2021a & 2021b).  
Métis Nation British Columbia & Office of the Provincial Health Officer (2021).

# Methodology

## Sample

This research focuses on B.C. residents who have [Medical Services Plan](#) coverage and completed the [BC Demographic Survey](#).

## Research methods

The Ministry of Health completed the analysis in this report. The data are sourced from the BC Demographic Survey and health administrative data including the [Client Roster](#) and the B.C. [Chronic Disease Registry](#). Statistics Canada's [Census of Population](#) was used for [age-sex standardization](#).

### BC Demographic Survey

The voluntary and confidential BC Demographic Survey was directly mailed to two-thirds of households in B.C. through random sampling, stratified geographically across B.C.'s Community Health Service Areas covering all regions of the province including reserves. Additionally, anyone with internet, or phone access could complete the survey even if they were not part of the original mail-out sample.

In total, there were over 204,000 surveys completed, representing almost 4% of B.C.'s population. See the BC Demographic Survey [Technical report](#) for more information on the survey, including details about the representativeness of the survey.

### Client Roster

The Client Roster is a record of people who use the B.C. health-care system. It contains information on people who live or have lived in B.C. and have registered with the Medical Services Plan (MSP). Some people in B.C. are not covered by MSP and consequently are not included in this study (for details, see [Eligibility for MSP](#)). The mid-fiscal year (October 1st) population counts based on the Client Roster is used as the denominator for calculating [prevalence](#). Age, sex, and geography were also retrieved from the Client Roster to support analysis.

### B.C. Chronic Disease Registry

The [B.C. Chronic Disease Registry](#) is produced by the [Office of the Provincial Health Officer](#) and has been used to measure chronic disease in B.C. since the 1990s. Prevalence of [chronic diseases](#) are estimated using administrative databases that record the interactions of B.C. residents with the health-care system, including hospitalizations, health-care provider visits and medication prescriptions. This analysis reports statistics based on the most recent version of the Chronic Disease Registry (2021/22).

Three chronic conditions were selected for this analysis: [asthma](#), [mood and anxiety disorders](#), and [diabetes](#). These conditions were selected as they are highly prevalent in the province. This was a requirement in this initial phase of the research to ensure that there would be a sufficient sample size when linking health data to the BC Demographic Survey and reporting across subpopulations.

The definitions used by the Chronic Disease Registry for the three selected conditions are described in [Table 1](#), which also includes links to their full definitions. [Diabetes](#) is a condition people often have for life after diagnosis, whereas asthma and mood disorders have symptoms that can improve (remission) or come back (relapse). For [asthma](#) and [mood disorders](#), active health-care contact prevalence (patients who had contact within the year prior) was used in the analysis. For diabetes, lifetime prevalence was used in the analysis.<sup>13</sup> For all three selected conditions, rates were calculated for people aged one year or older.

Table 1. B.C. Chronic Disease Registry Definitions for Asthma, Mood and Anxiety Disorders, and Diabetes.

DISEASE	CHRONIC DISEASE REGISTRY CASE DEFINITION
<b>Asthma - Active health-care contact prevalence</b>	1 hospitalization; or 2+ practitioner visits within 1 year; or 1+ practitioner visit and 2+ prescriptions for asthma, at any period during a person’s lifetime (see <a href="#">Full Definition</a> ).  And received health-care services for asthma in the past year.
<b>Mood and anxiety disorders - Active health-care contact prevalence</b>	1 hospitalization; or 2+ practitioner visits within 1 year for mood or anxiety disorders, at any period during a person’s lifetime (see <a href="#">Full Definition</a> ). And received health-care services for mood and anxiety disorders in the past year.  Note: This definition includes depressive disorders.
<b>Diabetes - Lifetime prevalence</b>	1 hospitalization; or 2+ practitioner visits within 1 year for diabetes; or select prescription medication use, at any period during a person’s lifetime (see <a href="#">Full Definition</a> ).  Note: This definition captures both type 1 and 2 diabetes; gestational diabetes cases are excluded.

**Note:** These definitions may be less able to identify the presence of chronic conditions for new residents of B.C. since they are based on historical interactions with the B.C. health system. We compared prevalence for B.C. residents who had at least five years of Medical Services Plan coverage and found their rates were slightly higher compared to people who recently moved to B.C.

<sup>13</sup> During the writing of this report, a change to the diabetes definition was developed to correct for the recent increase in off-label prescribing of diabetes medications for weight loss. This report shows 8.9% prevalence in diabetes for 2021/22, whereas the corrected algorithm results in 8.6% prevalence.

## Data linkage

BC Demographic Survey data, B.C. Chronic Disease Registry, and Client Roster data were linked, using the selection criteria of B.C. residents who had Medical Services Plan coverage in the middle of the fiscal year and removing duplicate surveys. The final linked dataset had 196,777 records. This linkage and subsequent analysis were undertaken within the [Data Innovation Program](#)'s secure analytics environment.

## Weighting

[Post-stratification weights](#) were created to reduce survey non-response bias. Survey respondent data and the Client Roster reference population were grouped by age category, sex, and health authority as recorded in the Client Roster. Post-stratification weights were created using Client Roster population counts for each subgroup (e.g. age category) divided by survey respondents in corresponding subgroups. Adjustments were done for a small number of people with incomplete Client Roster data. For example, for people whose age or health authority was unknown, weights were calculated based on sex only.

[Table 2](#) shows the difference in unweighted and weighted BC Demographic Survey cohort by Indigenous identity, racial identity, and gender identity. By design, weighting ensures the percentage of the weighted survey responses matches the age category, sex, and health authority population in the province (therefore these are not shown in the table).

Table 2: Unweighted and Weighted Number (n) and Percentage (%) of Survey Responses

SUBGROUP	SURVEY RESPONSES UNWEIGHTED		SURVEY RESPONSES WEIGHTED	
	N	%	N	%
<b>Indigenous Identity</b>				
First Nations (Status or Non-Status)	3,565	2%	131,825	3%
Inuk (Inuit)	83	<1%	3,105	<1%
Métis	2,553	1%	91,857	2%
Not Indigenous	186,407	95%	4,916,870	93%
Reported multiple Indigenous identities	311	<1%	11,136	<1%
I don't know/I am unsure	1,866	1%	56,842	1%
Prefer not to answer	1,992	1%	53,012	1%
<b>Racial Identity</b>				
African or Caribbean	1,750	1%	51,625	1%
Another Southeast Asian identity	1,292	1%	31,879	1%
Arab	824	<1%	22,225	<1%
Central Asian	603	<1%	13,843	<1%
Chinese	28,225	14%	619,743	12%
European	99,111	50%	2,721,319	52%
Filipino	5,940	3%	141,110	3%
Japanese	1,730	1%	37,901	1%
Korean	3,202	2%	78,259	1%
Latin American	3,378	2%	83,490	2%
Reported multiple racial identities	7,452	4%	227,052	4%
South Asian	10,596	5%	276,911	5%
West Asian	2,424	1%	54,009	1%
I don't know/I am unsure	5,355	3%	165,192	3%
Prefer not to answer	6,017	3%	177,473	3%
Missing	18,878	10%	562,614	11%
<b>Gender Identity</b>				
Cisgender man/boy	70,871	36%	1,975,808	38%
Cisgender woman/girl	81,603	41%	2,063,996	39%
Intergender or Ipso gender	371	<1%	10,977	<1%
Non-binary	1,468	1%	49,264	1%
Transgender	1,285	1%	52,300	1%
Two-spirit (Indigenous)	438	<1%	14,403	<1%
Don't know/prefer not to answer	35,581	18%	965,412	18%
Missing	5,160	3%	132,486	3%

# Analytic approach

The number of survey respondents with [diabetes](#), [asthma](#), and [mood and anxiety disorders](#) based on the B.C. chronic disease definitions described above were divided by the mid-year population count (aged 1+ years). Each survey respondent was weighted as described above.

## Age-sex standardized rates

We produced [age-sex standardized](#) prevalence of diabetes, asthma, and mood and anxiety disorders stratified by Indigenous identity, racial identity, and gender identity.

Age and sex are important risk factors for chronic diseases and should be considered when comparing disease measures among population subgroups. For example, a subgroup may have a higher disease prevalence but also be older, which can complicate interpretation if they are being compared to another subgroup that is younger. Age-sex standardization is a statistical method that enables comparisons across population subgroups that account for differences in the age and sex structure. It does this through mathematical adjustments, so every subgroup is treated to have a common age and sex distribution, based on what is called a reference population. In this report, the 2011 Canadian Census was used as the reference population, to support comparability with current practices for age-standardization in other provincial reporting of chronic disease prevalence.

Age-sex standardized prevalence was estimated using direct standardization method and the 95% confidence intervals were calculated using analytic weights.<sup>14</sup>

Results based on fewer than 10 respondents were not included in this release.

This methodology has many strengths as outlined above, but, like any analyses, there are also limitations, including:

- The [Chronic Disease Registry](#) can underrepresent prevalence for people who are not interacting with the health system.
- Sample representativeness: there are limitations for generalizing results to the total B.C. population given there are unknown non-response biases that could not be addressed in weighting.
- Responses for racial and gender identity were open ended, and complex to operationalize. More details are available in [Appendix 2](#) and [Appendix 3](#).
- This analysis did not account for differences in the socio-economic determinants of health.

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<sup>14</sup> The approach used to estimate confidence intervals assumes that we had a probabilistic sample, whereas the survey had a convenience sample. Strata information could not be sourced/included in time. As a result, this approach could underestimate the width of the confidence intervals. The bootstrapping method was also explored to calculate confidence intervals and the results were similar.

# Findings

## How does chronic disease vary across population groups in B.C.?

This section summarizes variation in [chronic conditions](#) experienced by diverse populations, based on administrative data on health-service contacts. The following sections present findings for three selected chronic conditions: [asthma](#), [mood and anxiety disorder](#), and [diabetes](#). Estimates of [chronic disease prevalence](#) (i.e., the proportion of people with a condition) are [age-sex standardized](#) unless otherwise noted.

In this report, differences will be described but the contributors to the differences will not be discussed. Higher chronic disease prevalence generally reflects a greater burden of the disease and related health-care needs, and can also reflect that some population groups are more likely to have access to health services, seek care and have a diagnosed condition. On the other hand, lower disease prevalence based on health contacts can be due to lower burden of disease, but may also reflect barriers in access to health care, leading to undiagnosed conditions and underestimation of the disease prevalence.

### Asthma

Asthma is a chronic respiratory disease that affects adults and children. It makes breathing difficult, as it causes breathing passages to swell and airways to constrict, often filling with mucus. Risk factors for developing asthma include family history, allergies, poor air quality, substandard housing, early viral respiratory infections, and obesity.<sup>15</sup>

In 2021/22 among the [BC Demographic Survey](#) respondents, 5.3% had active health contacts for asthma. This is comparable but slightly higher than the 4.8% of the provincial estimate from the same year based on the complete [Chronic Disease Registry](#) population. The variation in prevalence of asthma across population groups in B.C. is shown in [Figure 1](#). Some observations include:

- For Indigenous populations, prevalence of asthma ranged from 7.5% among Métis respondents to 9.6% among First Nations respondents (compared to 5.1% among non-Indigenous). This data corresponds well with published asthma prevalence estimates for Métis adults (aged 18+ years) of 7.5% in 2017/18.<sup>16</sup> Other published work has shown that asthma prevalence among First Nations women has increased since 2004/05 and is higher among First Nations women aged 50+ compared to First Nations men and other women.<sup>17</sup>

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<sup>15</sup> Ministry of Health. (2023). Métis Nation British Columbia & Office of the Provincial Health Officer. (2021)

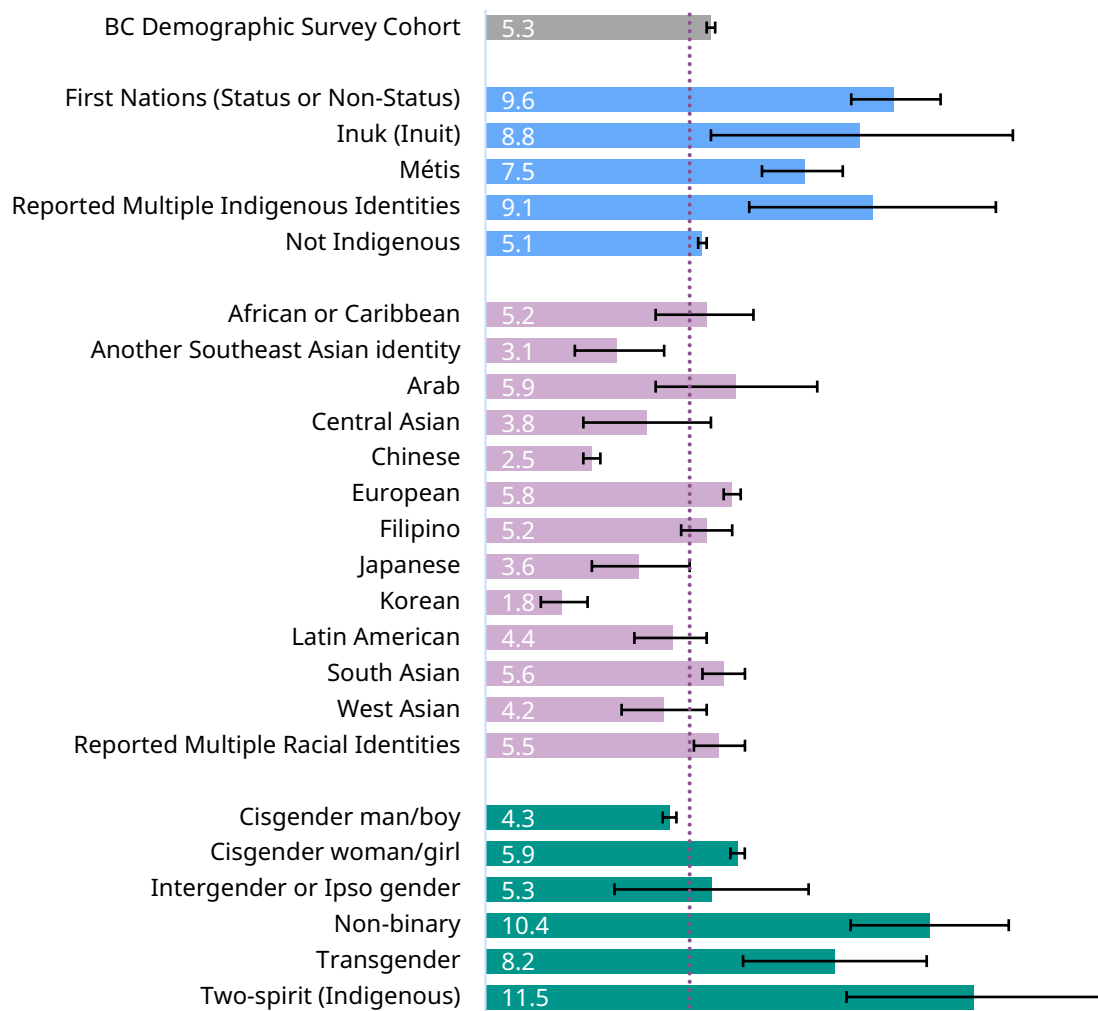
<sup>16</sup> Métis Nation British Columbia & Office of the Provincial Health Officer (2021).

<sup>17</sup> First Nations Health Authority & Office of the Provincial Health Officer (2021b).



- There is variation in asthma prevalence across racial identity groups. Asthma prevalence was the lowest among respondents of Korean (1.8%) and Chinese (2.5%) descent while higher prevalence was observed among respondents of European descent (5.8%) and Arab descent (5.9%, though this rate was not statistically significant from the B.C. population average).
- Prevalence of asthma was substantially higher among survey respondents who identified as non-binary (10.4%), transgender (8.2%) and Two-Spirit (11.5%). Cisgender women/girls also had higher prevalence compared to cisgender men/boys (5.9% vs 4.3%, respectively).

Figure 1. Age-sex Standardized Active Health-Care Contact Prevalence (and 95% Confidence Interval) for Asthma in 2021/22, by Indigenous Identity, Racial Identity, and Gender Identity



**Note:** The dashed vertical line represents the provincial age-standardized rate based on the Chronic Disease Registry official population estimate (4.8). See [Appendix 4, Table 3.1](#) for more detailed results.

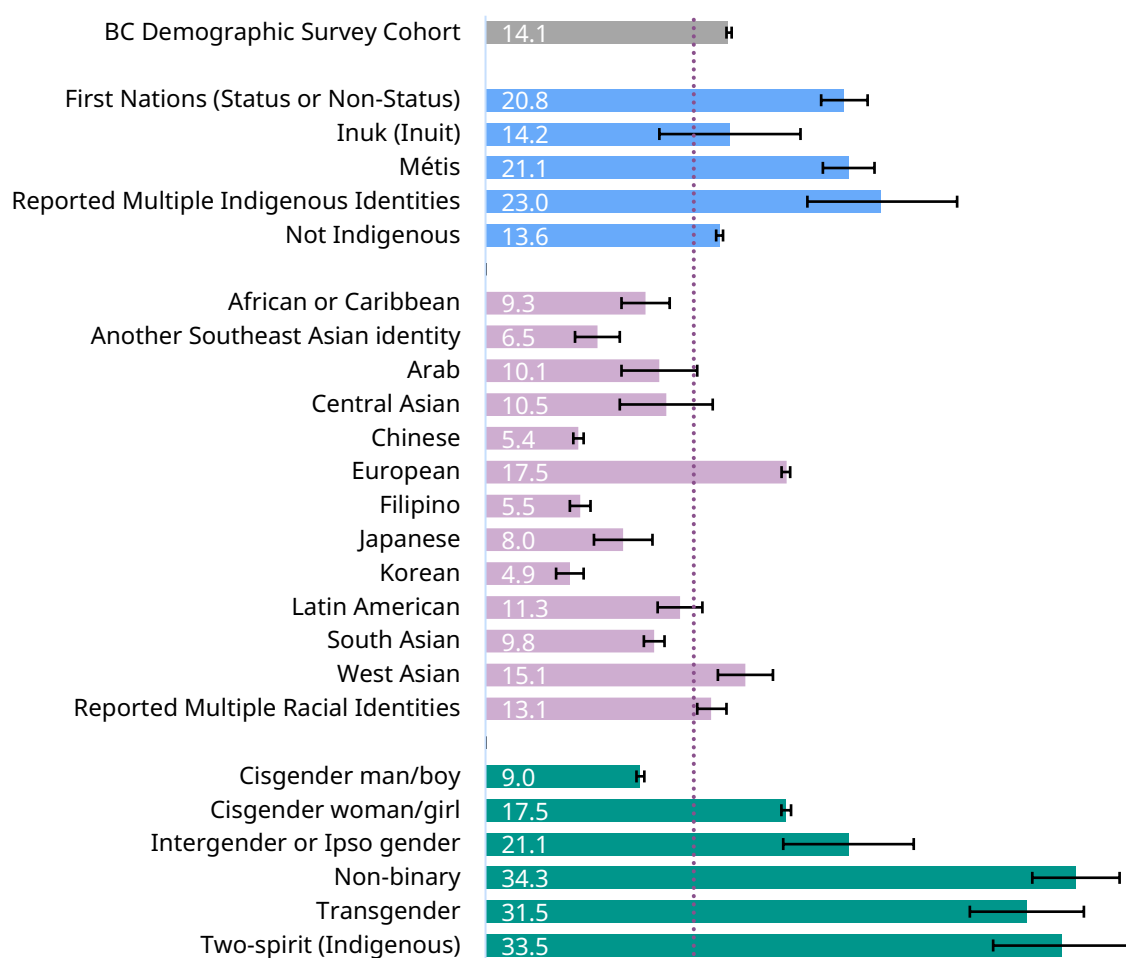
## Mood and anxiety disorders

Mood disorders, such as depression and bipolar disorders, reflect a lowering or elevation of a person’s emotional state, while anxiety disorders involve excessive and persistent feelings of

nervousness and fear.<sup>18</sup> In 2021/22, 14.1% of the BC Demographic Survey respondents had active health contacts for mood or anxiety disorders. This is comparable but slightly higher than the 12.1% of the provincial estimate in the same year. Prevalence across population groups in B.C. is shown in [Figure 2](#). Some observations include:

- For Indigenous populations, prevalence of mood and anxiety disorders ranged from 14.2% among Inuit to 21.1% among Métis respondents.
- Among racial identity groups, health-contact-related prevalence ranged from 4.9% among Korean respondents to 17.5% among European respondents.
- Across gender identity and Indigenous Two-Spirit groups, prevalence was notably higher among respondents who identified as non-binary (34.3%), transgender (31.5%), and Indigenous Two-Spirit (33.5%). Prevalence among cisgender women/girls was almost two times higher than cisgender men/boys (17.5% vs 9.0%, respectively).

Figure 2. Age-sex Standardized Active Health Care Contact Prevalence (and 95% Confidence Interval) for Mood and Anxiety Disorders in 2021/22, by Indigenous Identity, Racial Identity, and Gender Identity



**Note:** The dashed vertical line represents the provincial age-standardized rate based on the Chronic Disease Registry official population estimate (12.1%). See [Appendix 4, Table 3.2](#) for more detailed results.

<sup>18</sup> Canadian Mental Health Association British Columbia Division (2024).

## Diabetes

Diabetes occurs when the body's ability to manage excess glucose levels in the blood is diminished. In B.C., over 33,000 people a year are diagnosed with diabetes (this includes type 1 and 2 diabetes, gestational diabetes cases are excluded) and over half a million residents are currently estimated to have this diagnosis.<sup>19</sup> In 2021/22, the prevalence of diabetes in BC Demographic Survey respondents was 8.9%. This is comparable to the provincial estimate. Variation across population groups is shown in [Figure 3](#). Some observations include:

- Among Indigenous populations, prevalence of diabetes ranged from 10.1% among Inuit to 12.1% among Métis respondents. These results correspond well with published reports, showing 12.2% age-standardized rate of Métis adults (aged 18+ years) with diabetes in 2017/18.<sup>20</sup>
- Among racial identity groups, diabetes prevalence ranged from 7.8% for European respondents to 16.6% among Filipino respondents. Findings from the survey cohort align with the Canadian Community Health Survey from 2015-18 for Canada, based on self-reported diabetes.<sup>21</sup>
- Diabetes prevalence is higher among respondents who identified as non-binary (12.1%), transgender (14.7%), and Two-Spirit (12.7%). Estimates were higher among cisgender men/boys compared to cisgender women/girls (9.2% vs 7.9%, respectively).

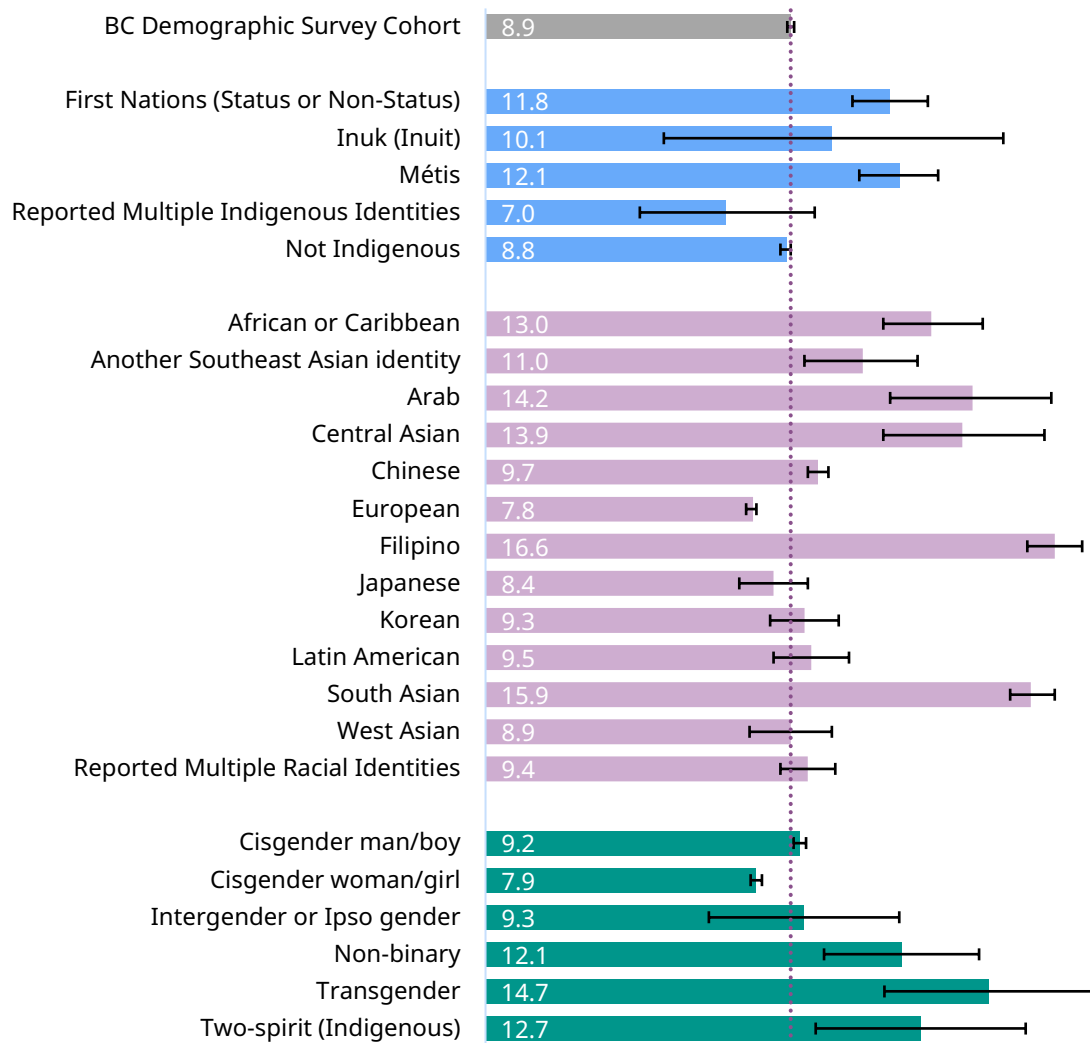
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<sup>19</sup> British Columbia Ministry of Health. [Chronic Disease Dashboard](#).

<sup>20</sup> Métis Nation British Columbia & Office of the Provincial Health Officer (2021).

<sup>21</sup> Health Canada (2022). Health Canada (2024).

Figure 3. Age-sex Standardized Lifetime Prevalence (and 95% Confidence Interval) for Diabetes in 2021/22, by Indigenous Identity, Racial Identity, and Gender Identity



**Note:** The dashed vertical line represents the provincial age-standardized rate based on the Chronic Disease Registry official population estimate (8.9%). See [Appendix 4, Table 3.3](#) for more detailed results.

# Next steps

The first phase of research has estimated the prevalence of common [chronic diseases](#) across subpopulations. The Ministry of Health, the [Office of the Provincial Health Officer](#), and [BC Stats](#) collaborated on the first phase of research.

For subsequent analysis, we are exploring the following research topics:

- Relationships in the findings that consider both demographic characteristics (e.g., racial identity, Indigenous identity) and socioeconomic factors (e.g., income, rurality).
- Patterns of chronic disease-related service use across population subgroups, with a focus on topics that can inform discussion on ways to improve chronic disease management.
- Disparities in experience living with chronic diseases (e.g., patient experience and long-term outcomes).

Future analysis will have more emphasis on engaging with health partners. In addition to seeking input from the [Anti-Racism Data Committee](#) and Indigenous Governing Entities, we intend to consult with health partners including regional health authorities, [First Nations Health Authority](#), [Métis Nation British Columbia](#), and the [Provincial Health Services Authority](#) (including [Trans Care BC](#) and the [BC Centre for Disease Control](#)), who will help to refine the research questions and help determine the analytic approach. Statistics Canada and academic research partners may be approached to improve survey sample weighting.

# Key terms

TERM	DEFINITION
<b>Age-sex standardization</b>	Age-sex standardization is a statistical method used to allow comparison of disease rates, or other health indicators, between populations while accounting for differences in their age and sex distribution
<b>Asthma</b>	Asthma is a respiratory disease that affects adults and children. It makes breathing difficult, as it causes breathing passages to swell, and airways to constrict, often filling with mucus
<b>Chronic Disease</b>	Chronic diseases are defined broadly as conditions that last one year or more and require ongoing medical attention or limit activities of daily living. Chronic diseases are long-lasting conditions that usually can be controlled but not cured
<b>Chronic Disease Registry</b>	A dataset produced by the Office of the Provincial Health Officer since the 1990s that can be used to measure the burden of chronic disease in the B.C. population
<b>Client Roster</b>	A record of people who use the B.C. health-care system. It contains information on people who live or have lived in B.C. over time, specifically focusing on people who have registered in the health-care system with a personal health number
<b>Diabetes</b>	Diabetes occurs when the body’s ability to manage excess glucose levels in the blood is diminished
<b>Health inequalities</b>	“Differences in health status or in the distribution of health determinants between different population groups” (OPHO 2019, PHAC 2020)
<b>Health inequities</b>	“Refer to the subset of health inequalities that are deemed to be unfair or unjust, that arise from the systematic and intentional or unintentional marginalization of certain groups, and that are likely to reinforce or exacerbate disadvantage and vulnerability (OPHO 2019, PHAC 2020)
<b>Mood and Anxiety Disorders</b>	Mood disorders, such as depression and bipolar disorders, reflect a lowering or elevation of a person’s emotional state, while anxiety disorders involve excessive and persistent feelings of nervousness and fear
<b>Prevalence</b>	The prevalence of a condition in this report is the percentage of residents who have a certain condition based on health-service contacts
<b>Post-stratification weighting adjustment</b>	Post-stratification adjustment makes the survey cohort population counts by age, sex and health authority in this analysis match to the Client Roster total population cell counts by applying a weight

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# Appendices

## Appendix 1: Analytic approach to Indigenous identity data from the BC Demographic Survey

### Indigenous identity question (Q14)

Respondents were given the following instructions when asked to categorize their Indigenous identity in the [BC Demographic Survey](#):

Indigenous identity in Canada refers to people who are:

- First Nations (North American Indian), Métis, or Inuk (Inuit), and/or
- Registered or Treaty Indians (that is, registered under the Indian Act of Canada), and/or
- Those who have membership in a First Nation or Indian band.

If you identify as Indigenous but not Indigenous to Canada (for example, Ainu, Sámi, or Māori), you will have the opportunity to self-identify at a later point in the survey.

If you have Indigenous ancestry, but do not self-identify as Indigenous, you will have the opportunity to clarify this ancestry at a later point in the survey.

Respondents were then given 3 defined options for Indigenous identity:

- Yes, First Nations (status or non-status)
- Yes, Métis
- Yes, Inuk (Inuit)

As well as the option to answer `no`, `I don't know/I am unsure`, or `Prefer not to answer`. Multiple options could be selected.

For determining Indigenous identity, we exclusively used data provided in Q14 as this survey question was intentionally structured to be consistent with distinctions-based Indigenous self-identification and best aligns with the 2021 Statistics Canada Census. There were questions on other facets of Indigenous identity in the survey (for example, questions pertaining to racial identity (Q32), ancestry (Q21) or culture and ethnicity (Q34). However, focusing on Q14 avoids conflation of multiple concepts such as Indigenous identity, racial identity, ancestry, and ethnicity which are well-defined constructs pertaining to singular questions. This also aids in reducing the number of statistics that could be used to independently report on aspects of Indigenous identity. Further investigation of intersectionality amongst these questions is warranted.

We implemented the following methodology to define Indigenous categories within the January 12, 2024 provisioned BC Demographic Survey dataset:

- Use 'Reported Multiple Indigenous Identities' if a unique StudyID responded Yes to multiple options from First Nations, Métis, or Inuk (Inuit).

- Use the defined Indigenous category if a unique StudyID responded Yes to only one option from First Nations, Métis or Inuk (Inuit).
- Use `Not Indigenous` if a unique StudyID responded No to Q14.
- Use `I don't know/I am unsure` and/or `Prefer not to answer` when a unique StudyID has only this as a response.
- Use `Prefer not to answer` as higher priority over `I don't know/I am unsure` if a unique StudyID has both responses.

## Appendix 2: Analytic approach to coding racial identity data from the BC Demographic Survey

### Racial identity question (Q32)

The [BC Demographic Survey](#) collected information about racial identity by asking the following question (coded Q32):

How would you best categorize your racial identity. Are you...?  
Select all that apply; please indicate which categories apply to you and not how you may be perceived.

Respondents<sup>22</sup> were also given the following explanation when asked to categorize their racial identity:

Racial categories are not based in science. There is no agreement on how racial identity is categorized. A person's racial identity may influence the way they are treated by individuals and institutions. The categories used here are based on feedback from people living in British Columbia.

Respondents were given 16 defined options for racial identity<sup>23</sup> as well as 'I don't know/I am unsure', 'Prefer not to answer', and 'Prefer to self-describe'. Métis, Inuit/Inuk and First Nations were included as racial options within this question. Participants were given the option to provide an alternative description through the 'Prefer to self-describe' field. Multiple options could be selected, including self-describing and choosing from one or more of the 16 defined options.

Self-described responses were re-coded by the survey data provider into the original 16 racial groups where possible prior to the data being provisioned to the [Data Innovation Program](#). A further 10 additional sub-groups were created that align with the 16 original groups but maintained in the data to retain specificity of responses. The data provider supplied information to map these 10 additional sub-group codes to the 16 defined options. The remaining 'Prefer to self-describe' responses that did not fall definitively into any of the 16 racial groups (e.g. 'Canadian') were marked as 'Undefined'.

We implemented the following methodology to define racial categories within the January 12, 2024 provisioned BC Demographic Survey dataset:

- Filter out any StudyID (single study participant) with First Nations, Métis, or Inuit/Inuk responses to Q32. This is done to eliminate conflation of concepts of identity (Indigenous

<sup>22</sup> For some respondents, racial identity may have been reported by members of the same household who were completing the survey on their behalf.

<sup>23</sup> Defined options included: African or Caribbean, Arab, Central Asian, Chinese, Japanese, Korean, East Asian, European, First Nations, Inuk (Inuit), Latin American, Métis, South Asian, Filipino, Another Southeast Asian identity, and West Asian. For more details on the racial categories provided by the survey, including sub-groups for some categories such as Another Southeast Asian identity, see the BC Demographic Survey [Technical Report](#).

vs. racial identity). Indigenous identity data is captured in detail in a separate section of the survey (coded as Q14).

- Transform the 10 sub-groups to their corresponding defined option using the mapping provided: the response to Q32 (Q\_CODE) is transformed into OUT\_CODE\_1 using the metadata-codes crosswalk file.
- For the remaining self-described codes, retain code 30000 (Mixed), and recode all others as 'Undefined' (relative to the 16 defined options).
- The following hierarchy was then established to derive a racial category for every study participant:
  1. Use the defined racial identity value where a unique StudyID has a single defined category from the original 16 racial groups, or a single defined category AND a response from 'I don't know/I am unsure' or 'Prefer not to answer'. Any further undefined categories reported by a StudyID are not taken into consideration.
  2. Use 'Reported Multiple Racial identities' where a unique StudyID has multiple defined categories, or multiple defined categories AND a response from 'I don't know/I am unsure' or 'Prefer not to answer', or a 'Prefer to self-describe' response of Mixed, or some combination of the above. Any further undefined categories reported by a StudyID are not taken into consideration.
  3. Use 'I don't know/I am unsure' and/or 'Prefer not to answer' when a unique StudyID has only this as a response.
  4. Use 'Prefer not to answer' as higher priority over 'I don't know/I am unsure' if a unique StudyID has both responses.
  5. Use 'Undefined' for all other unique StudyIDs that do not fall into the above categories. This corresponds to those who only had 'Undefined' self-description responses (relative to the 16 defined categories).

The result of implementing these data preparation steps is a single racial identity category for every respondent in the data. Those respondents with a final category of 'Undefined' were excluded from this first stage of analysis.

## Appendix 3: Gender identity

### Gender categorization (Q17, Q41, and Q42)

The [BC Demographic Survey](#) included three gender-related questions.

#### Q17 – Two-Spirit

This question was only open for respondents who identified as First Nations, Métis or Inuk (Inuit) in Q14, asking if they identify as Two-Spirit (Yes/No). Respondents also had the option of answering `I don't know/I am unsure`, `Prefer not to answer` or `Prefer to use a term from my Indigenous community or Language`.

#### Q41 – Gender

Which category best describes your gender: Man, Non-Binary person, or Woman, or do you prefer not to answer?

Respondents were given the following instructions when asked to categorize their gender:

Gender and sex at birth refer to two different concepts but are interrelated. Gender involves a personal, deeply held, internal sense of self. Broadly speaking, gender includes self-identification as well as socially and culturally constructed roles, behaviours, and expressions. A person's current gender may or may not align with the sex they were assigned at birth.

Respondents were then provided with the following options:

- Man/Boy
- Non-binary person
- Woman/Girl
- `Prefer not to answer/Unknown`
- `Prefer to self-describe`

#### Q42 – Gender identity

Respondents were given the following instructions when asked to categorize their gender identity:

For many people, their gender identity matches the cultural expectations of the sex they were assigned at birth. This means they are cisgender. Others may self-identify as being intergender or ipso gender, transgender, or may prefer to self-describe as agender, genderfluid, or another term.

Respondents were then the following options:

- Cisgender
- Intergender or ipso gender
- Transgender
- `I don't know/I am unsure`
- `Prefer not to answer` `Prefer to self-describe`

We implemented the following methodology to define racial categories within the January 12, 2024 provisioned BC Demographic Survey dataset:

### **Recoding Q17**

- Individuals who answered yes and/or provided a term from their Indigenous community or language were coded as Two-Spirit.

### **Recoding Q41**

- `Unsure`, `Prefer not to answer`, `Indeterminate`, `Comment` were grouped as `Prefer not to answer/Unknown`.

### **Recoding Q42**

- Respondents who entered self-describing answers such as `Post-gender`, `Anti-gender`, `Gender non-conforming`, `Agender`, `Gender fluid`, `Gender Queer`, `Queer`, `Bi gender`, `Demigender/Demigirl/Demiboy`, and `Androgynous` were recoded as `Non-binary`.
- Respondents who self-described as `Normal` (593) or `Responded with gender or sex at birth` (12,752) were recoded as `Prefer not to answer/Unknown`.
- Respondents who answered they were `Unsure`, `Prefer not to answer`, `Indeterminate`, `Comment`, `Does not understand the question`, or `God given` were grouped as `Prefer not to answer/Unknown`.

### **Combining the three variables**

- Cross-tabulated Q41 and Q42 to disaggregate respondents who identified as `Cisgender` in Q42 into `Cisgender man/boy` and `Cisgender woman/girl`.
- Respondents coded as `Intergender or Ipso gender` if that was provided in Q42.
- Respondents coded as `Non-binary` if provided any non-binary response in Q42
  - Respondents who identified as `Cisgender` or selected any `Prefer not to answer/Unknown` responses in Q42 but identified as `Non-binary` in Q41 were also coded as `Non-binary`.
  - A few respondents identified as `Transgender`, `Intergender or Ipso gender`, or `Two-Spirit` in Q42 and `Non-binary` in Q41. These were not recoded to non-binary; instead, their original response to Q42 was kept.
- Respondents coded as `Transgender` if that was provided in Q42
  - Note: Transgender individuals were not disaggregated into transgender males and females to ensure we had a sufficient sample size to report on.

- Recoded answers to `Two-spirit` if that was provided in Q17 or Q42
  - Note: a few individuals who responded to the survey identified as two-spirit, even though they did not identify as First Nations, Métis or Inuk (Inuit). Given that the concept of "Two-Spirit" is to be used only by Indigenous people<sup>24</sup>, these respondents were recoded to `Non-binary`.

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<sup>24</sup> Trans Care BC, Public Health Services Authority (PHSA). Resources on Two-Spirit. Retrieved from: <http://www.phsa.ca/transcarebc/gender-basics-education/terms-concepts/two-spirit#:~:text=Due%20to%20its%20cultural%2C%20spiritual,many%20identify%20themselves%20as%20LGBTQ%2B>



## Appendix 4: Tables

Table 3.1. Age-sex Standardized Active Health Care Contact Prevalence (and 95% Confidence Interval) for Asthma in 2021/22, by Indigenous Identity, Racial Identity, and Gender Identity

	AGE-SEX STANDARDIZED PREVALENCE	95% CONFIDENCE INTERVAL
Chronic Disease Registry Official Provincial Estimate	4.8	(4.8, 4.8)
BC Demographic Survey Cohort Estimate	5.3	(5.2, 5.4)
<b>Indigenous Identity</b>		
First Nations (Status or Non-Status)	9.6	(8.6, 10.7)
Inuk (Inuit)	8.8	(5.3, 12.4)
Métis	7.5	(6.5, 8.4)
Not Indigenous	5.1	(5.0, 5.2)
Reported Multiple Indigenous Identities	9.1	(6.2, 12.0)
I don't know/ I am unsure	7.5	(6.3, 8.7)
Prefer not to answer	6.4	(5.1, 7.6)
<b>Racial Identity</b>		
African or Caribbean	5.2	(4.0, 6.3)
Another Southeast Asian identity	3.1	(2.1, 4.2)
Arab	5.9	(4.0, 7.8)
Central Asian	3.8	(2.3, 5.3)
Chinese	2.5	(2.3, 2.7)
European	5.8	(5.6, 6.0)
Filipino	5.2	(4.6, 5.8)
Japanese	3.6	(2.5, 4.8)
Korean	1.8	(1.3, 2.4)
Latin American	4.4	(3.5, 5.2)
South Asian	5.6	(5.1, 6.1)
West Asian	4.2	(3.2, 5.2)
Reported Multiple Racial Identities	5.5	(4.9, 6.1)
I don't know/I am unsure	7.4	(6.7, 8.1)
Prefer not to answer	6.2	(5.6, 6.8)
Missing	6.7	(6.3, 7.0)
<b>Gender Identity</b>		
Cisgender man/boy	4.3	(4.2, 4.5)
Cisgender woman/girl	5.9	(5.8, 6.1)
Intergender or Ipso gender	5.3	(3.0, 7.6)
Non-binary	10.4	(8.6, 12.3)
Transgender	8.2	(6.1, 10.4)
Two-Spirit (Indigenous)	11.5	(8.5, 14.5)
Don't know/prefer not to answer	5.5	(5.3, 5.8)
Missing	5.6	(4.6, 6.6)

Table 3.2. Age-sex Standardized Active Health Care Contact Prevalence (and 95% Confidence Interval) for Mood and Anxiety Disorders in 2021/22, by Indigenous Identity, Racial Identity, and Gender Identity

	AGE-SEX STANDARDIZED PREVALENCE	95% CONFIDENCE INTERVAL
Chronic Disease Registry Official Provincial Estimate	12.1	(12.0, 12.1)
BC Demographic Survey Cohort Estimate	14.1	(13.9, 14.2)
<b>Indigenous Identity</b>		
First Nations (Status or Non-Status)	20.8	(19.4, 22.1)
Inuk (Inuit)	14.2	(10.1, 18.3)
Métis	21.1	(19.6, 22.6)
Not Indigenous	23.0	(18.6, 27.3)
Reported Multiple Indigenous Identities	13.6	(13.4, 13.8)
I don't know/ I am unsure	19.9	(18.1, 21.7)
Prefer not to answer	15.8	(14.0, 17.5)
<b>Racial Identity</b>		
African or Caribbean	9.3	(7.9, 10.7)
Another Southeast Asian identity	6.5	(5.2, 7.8)
Arab	10.1	(7.9, 12.3)
Central Asian	10.5	(7.8, 13.2)
Chinese	5.4	(5.1, 5.7)
European	17.5	(17.3, 17.8)
Filipino	5.5	(4.9, 6.1)
Japanese	8.0	(6.3, 9.7)
Korean	4.9	(4.1, 5.7)
Latin American	11.3	(10.0, 12.6)
South Asian	9.8	(9.2, 10.4)
West Asian	15.1	(13.5, 16.7)
Reported Multiple Racial Identities	13.1	(12.2, 13.9)
I don't know/I am unsure	16.4	(15.3, 17.4)
Missing	16.9	(16.3, 17.5)
Prefer not to answer	13.5	(12.6, 14.4)
<b>Gender Identity</b>		
Cisgender man/boy	9.0	(8.8, 9.2)
Cisgender woman/girl	17.5	(17.2, 17.8)
Intergender or Ipso gender	21.1	(17.3, 24.9)
Non-binary	34.3	(31.8, 36.8)
Transgender	31.5	(28.1, 34.8)
Two-spirit (Indigenous)	33.5	(29.5, 37.5)
Don't know/prefer not to answer	13.8	(13.3, 14.2)
Missing	13.1	(11.9, 14.2)

Table 3.3. Age-sex Standardized Lifetime Prevalence (and 95% Confidence Interval) for Diabetes in 2021/22, by Indigenous Identity, Racial Identity, and Gender Identity

	AGE-SEX STANDARDIZED PREVALENCE	95% CONFIDENCE INTERVAL
Chronic Disease Registry Official Provincial Estimate	8.9	(8.9, 8.9)
BC Demographic Survey Cohort Estimate	8.9	(8.8, 9.0)
<b>Indigenous Identity</b>		
First Nations (Status or Non-Status)	11.8	(10.7, 12.9)
Inuk (Inuit)	10.1	(5.2, 15.1)
Métis	12.1	(10.9, 13.2)
Not Indigenous	8.8	(8.6, 8.9)
Reported Multiple Indigenous Identities	7.0	(4.5, 9.6)
I don't know/ I am unsure	10.3	(9.1, 11.5)
Prefer not to answer	10.5	(9.4, 11.6)
<b>Racial Identity</b>		
African or Caribbean	13.0	(11.6, 14.5)
Another Southeast Asian identity	11.0	(9.3, 12.6)
Arab	14.2	(11.8, 16.5)
Central Asian	13.9	(11.6, 16.3)
Chinese	9.7	(9.4, 10.0)
European	7.8	(7.6, 7.9)
Filipino	16.6	(15.8, 17.4)
Japanese	8.4	(7.4, 9.4)
Korean	9.3	(8.3, 10.3)
Latin American	9.5	(8.4, 10.6)
South Asian	15.9	(15.3, 16.6)
West Asian	8.9	(7.7, 10.1)
Reported Multiple Racial Identities	9.4	(8.6, 10.2)
I don't know/I am unsure	10.3	(9.6, 11.0)
Missing	9.3	(9.0, 9.7)
Prefer not to answer	10.4	(9.7, 11.0)
<b>Gender Identity</b>		
Cisgender man/boy	9.2	(9.0, 9.3)
Cisgender woman/girl	7.9	(7.7, 8.1)
Intergender or Ipso gender	9.3	(6.5, 12.1)
Non-binary	12.1	(9.9, 14.4)
Transgender	14.7	(11.6, 17.7)
Two-spirit (Indigenous)	12.7	(9.6, 15.8)
Don't know/prefer not to answer	10.4	(10.1, 10.7)
Missing	8.4	(7.7, 9.2)

