Household Food Insecurity in Canada

2021

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PROOF | FOOD INSECURITY POLICY RESEARCH

UNIVERSITY OF TORONTO

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PROOF | FOOD INSECURITY POLICY RESEARCH

PROOF is a research program at the University of Toronto, launched in 2011 with funding from the Canadian Institutes of Health Research to identify effective policy interventions to address household food insecurity.
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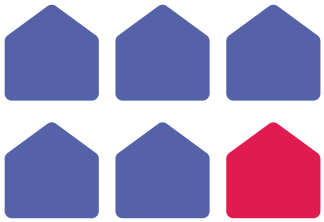
Executive Summary

Drawing on data for 54,000 households from Statistics Canada's Canadian Income Survey (CIS) conducted in 2021, we found a disturbingly high rate of household food insecurity. By food insecurity we mean inadequate or insecure access to food due to financial constraints.

The prevalence of household food insecurity in Canada matters because food insecurity is such a potent social determinant of health. Food-insecure people are much more likely than others to suffer from chronic physical and mental health problems and infectious and non-communicable diseases.

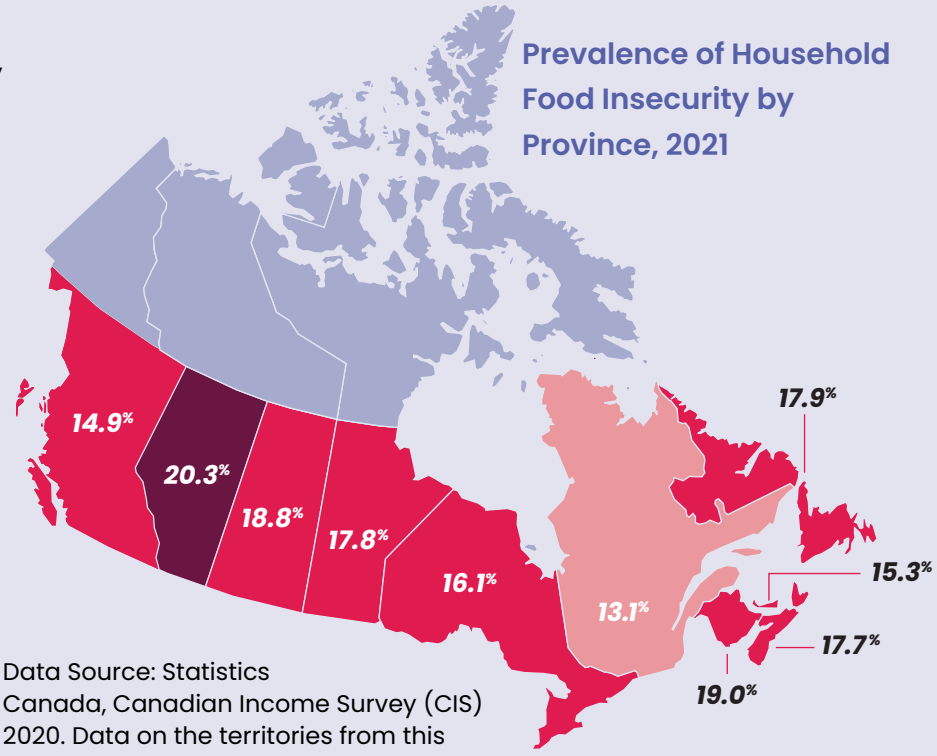
Almost 1 in 6 households were food insecure.



In 2021, 15.9% of households in the ten provinces experienced some level of food insecurity in the previous 12 months. That amounts to 5.8 million people, including almost 1.4 million children under the age of 18, living in food-insecure households. These estimates do not even include people living in the territories or on Indigenous reserves, who are known to experience high vulnerability to food insecurity.

This high rate of household food insecurity has persisted through the past three years, with little change from 2019 to 2021. Despite the systematic monitoring of food insecurity since 2005, this problem has not gotten any better.

The prevalence of food insecurity differs markedly across the provinces, ranging from 13.1% in Quebec to 20.3% in Alberta. Quebec has had the lowest prevalence of household food insecurity in Canada for several years now. Differences in the rates of household food insecurity across the provinces point to the important roles that provincial governments play in protecting their populations from this problem.



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020. Data on the territories from this survey not available yet.

Household food insecurity is a marker of material deprivation, tightly linked to other indicators of social and economic disadvantage. Households with lower incomes are more likely to be food-insecure.

We can also see the importance of financial assets and debts through our examination of homeownership. Renters are more vulnerable to food insecurity than homeowners. However, housing debt matters and homeowners with a mortgage are more vulnerable than those without.

As a marker of material deprivation, household food insecurity tells us how people have fared through the pandemic. In 2021, one in seven households relying on employment income was food insecure, and households relying on employment incomes made up 51.9% of food-insecure households.

Food insecurity was highly prevalent among households on social assistance and those who faced job disruptions and had to rely on Employment Insurance (EI) or pandemic-related benefits like the Canada Emergency Response Benefit (CERB). Relying on any form of public income support except public pensions meant being very vulnerable to food insecurity.

63% **of households relying on social assistance were food-insecure.**

42% **of households relying on COVID-19 benefits were food-insecure.**

39% **of households relying on Employement Insurance were food-insecure.**

Household food insecurity is racialized. Indigenous Peoples face extraordinary vulnerability, with almost a third (30.7%) of off-reserve Indigenous Peoples in the ten provinces food-insecure in 2021.

With the record inflation since 2021, we can expect the prevalence and severity of food insecurity to worsen if measures aren't taken to address the socioeconomic circumstances that give rise to it and to ensure that the incomes of vulnerable households can keep up with the rising costs of living.

The persistently high prevalence of household food insecurity across Canada and the patterns of vulnerability documented in this report spotlight the need for more effective, evidence-based policy responses by federal and provincial governments. They must:

1. **Address the vulnerability of households reliant on employment incomes but still unable to make ends meet.**
2. **Ensure that working-aged adults not in the workforce also have sufficient incomes to meet basic needs.**

Introduction

Following the inclusion of food insecurity as an indicator for Canada's Poverty Reduction Strategy in 2018, the Canadian Income Survey (CIS) began annual monitoring of household food insecurity.

Drawing on data from the CIS, we present a portrait of household food insecurity in Canada in 2021, examining who is most affected and how food insecurity rates differ across the country. We also use CIS data to examine food insecurity rates in 2019 and 2020, providing a look at food insecurity before and after the start of the COVID-19 pandemic.

New to this report are additional analyses on the relationships between household food insecurity and different sociodemographic and economic characteristics. Since some of these factors are related to each other, we provide more clarity by examining their unique contribution in shaping vulnerability to food insecurity.

This report is designed to provide a tool to describe the problem of food insecurity in Canada, monitor trends, and identify priorities for interventions to address this major public health issue. It builds on the extensive work of Health Canada and Statistics Canada in measuring and monitoring household food insecurity.

To gain a deeper understanding of the problem of food insecurity in Canada, readers are encouraged to consult the research papers and reports cited throughout this report.

This report has been prepared by PROOF, a research program launched in 2011 with funding from the Canadian Institutes of Health Research, to identify effective policy interventions to address household food insecurity. This is the sixth report on household food insecurity in Canada that PROOF has released.

What is Food Insecurity?

Household food insecurity, as this problem is measured and monitored in Canada, refers to the inadequate or insecure access to food due to financial constraints. The experience of food insecurity can range from concerns about running out of food before there is money to buy more, to the inability to afford a balanced diet, to going hungry, missing meals, and in extreme cases, not eating for whole days because of a lack of food and money for food.

Food insecurity is a problem of inadequate financial resources.

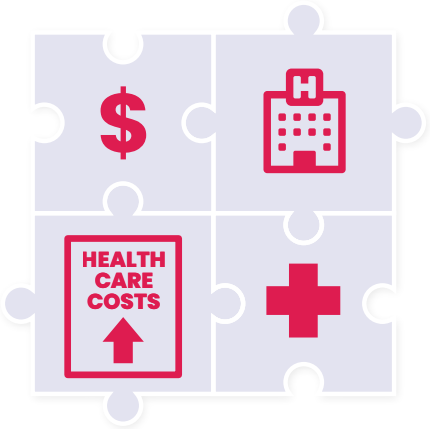
$

Although food insecurity was initially understood to be a food problem, with more research it has become clear that the deprivation experienced by households that are food insecure is not confined to food.

Rather, the food problems that define household food insecurity denote much more pervasive material deprivation. Food-insecure households compromise spending across a broad range of necessities, including housing and prescription medication costs.[1, 2]

Food insecurity is a serious public health problem in Canada because individuals' health and wellbeing are tightly linked to their household food security status.

People living in food-insecure households are much more likely than others to be diagnosed with a wide variety of chronic conditions, including mental health disorders,[3, 4] non-communicable diseases,[5, 6] and infections.[7-9] The relationship between food insecurity and health is graded, with adults and children in severely food insecure households most likely to experience serious adverse health outcomes.[3, 10]



People who are food-insecure are less able to manage chronic conditions and therefore more likely to experience negative disease outcomes,[11, 12] to be hospitalized,[13] and to die prematurely.[9] Because of its toxic effects on health, household food insecurity places a substantial burden on our health care system and expenditure.[13, 14]

How is Food Insecurity Measured in Canada?

Household Food Security Survey Module

Household food insecurity status is determined through the Household Food Security Survey Module (HFSSM), a well-validated tool that has been included in Statistics Canada's Canadian Community Health Survey (CCHS) since 2004 and in the Canadian Income Survey (CIS) since 2019.

This survey module consists of 18 questions asking the respondent whether he/she or other household members experienced the conditions described over the past 12 months. These conditions range in severity from experiences of anxiety that food will run out before household members have money to buy more, to modifying the amount of food consumed, to experiencing hunger, and in the extreme, going a whole day without eating. *(See Appendix A for the full Household Food Security Module)*.

These questions distinguish the experiences of adults from those of children, recognizing that in households with children, adults may compromise their own food intake to reallocate scarce resources for children.

Based on the number of positive responses to the questions posed, households are classified as **food secure** (no indication of any income-related problems of food access), **marginally food insecure** (some concern or problem of food access), **moderately food insecure** (compromises in the quality and/or quantity of food consumed) or **severely food insecure** (extensive compromises including reduced food intake). *(See Appendix B for a full description of the classification scheme.)*

Monitoring Household Food Insecurity through the Canadian Income Survey (CIS)

As part of Canada's Poverty Reduction Strategy (2018), the government identified household food insecurity as a key indicator for its Official Poverty Dashboard. In 2019, Statistics Canada added the HFSSM to the CIS, as part of monitoring the strategy's progress.

The addition of the questions about household food insecurity to the CIS ensures reliable, annual monitoring of food insecurity, which was not possible through

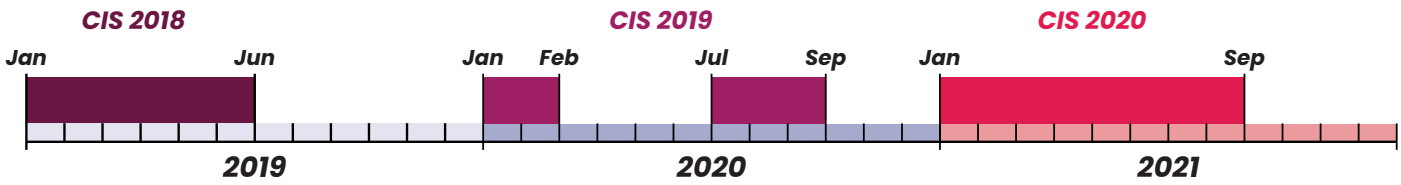
CCHS. Some provinces and territories have opted out of measuring food insecurity on the CCHS in the years when it was not mandatory.

The CIS is an annual cross-sectional survey administered by Statistics Canada that collects information about Canadians' income and income sources. Data collected through the CIS is combined with data from the Labour Force Survey and tax data to provide a look at Canadians' economic circumstances.

The reference period of the CIS refers to the calendar year for which the income data is based on, which is the year before the actual interview. For example, interviews for CIS 2020 were conducted from January to September 2021. While the income data refers to income garnered in 2020, household food insecurity is measured for the 12 months prior to the date of the survey interview in 2021.

The measurement of household food insecurity was present in CIS 2018, CIS 2019, and CIS 2020, meaning we have information about food insecurity collected from 2019 to 2021 (Figure 1). The collection for CIS 2019 ran from January to February and July to September in 2020 due to pandemic-related disruptions.

Figure 1. Timeline of data collection periods for CIS 2018, 2019, and 2020.



Since the survey's sample is designed to be representative of the Canadian population, the data can be weighted to create population-level estimates. In this report, we present food insecurity statistics, based on population-weighted data from about 54,000 households surveyed in 2021 for CIS 2020. This only includes households living in the ten provinces because, at the time of publication, data on the territories is unavailable.

The CIS sample excludes people living on reserves and other Indigenous settlements in the provinces, people living in prisons or care facilities, and people in extremely remote areas with very low population density. These exclusions amount to less than 2% of the population. The sample also excludes people who are unhoused.

Although on-reserve First Nations people and unhoused people make up small proportions of the Canadian population, their high levels of vulnerability to food insecurity must mean that the true prevalence of food insecurity is underestimated because of their omission.

Differences from other reporting of household food insecurity statistics

The CIS estimates in this report differ from some of those released by Statistics Canada and included in Canada's Official Poverty Dashboard in three important ways.[15, 16]

1. Inclusion of marginal food insecurity in prevalence estimates

We have included marginally food-insecure households in our estimates of the prevalence of household food insecurity in Canada, whereas some results provided by Statistics Canada only count households that are moderately or severely food-insecure.[14, 15] Our reporting is consistent with Health Canada's 2020 update of their approach for interpreting food insecurity data to consider marginally food-insecure households as distinct from food-secure households.[17]

2. Reporting of food insecurity at the household level

We have opted to report the prevalence of food insecurity at the household level, in line with the conceptualization of food insecurity as a household measure and the way it appears in our previous reports. As a result, the provincial prevalence estimates in this report may differ slightly from other resources reporting the percentage of people living in food-insecure households in the provinces instead.[15, 16]

3. Reporting estimates based on the year of interview

We have reported household food insecurity estimates using the year that the interview was conducted instead of the name of the survey/reference period. The estimates in the March 2022 update to the Poverty Dashboard are based on the CIS 2019 and 2020 and are referred to as reflecting the reference periods, 2019 to 2020.[16] In this report, data from CIS 2019 and 2020 are referred to as 2020 and 2021, reflecting their respective survey collection periods. We think this is a more appropriate representation of the household food insecurity data collected in these surveys.

Difference between estimates from CIS and CCHS

The prevalence estimates from CIS are notably higher than those from CCHS for comparable years. There are several differences in the design, administration, and analysis of these two surveys, but a comparison of estimates from CIS 2018 and CCHS 2017-2018 by Statistics Canada showed that the differences could not be fully explained by differences in the survey methods.[15] Since CIS has a higher response rate than CCHS, we believe that it may provide more representative estimates for food insecurity than CCHS.

Because of the differences between CIS and CCHS, it is not appropriate to compare the numbers in this report directly with those in our earlier reports.

Methodology for Examining Predictors of Food Insecurity

A key function of our reports has been to show how the prevalence of household food insecurity varies according to household characteristics and identify vulnerable populations as priorities for interventions.

For example, our reports have repeatedly shown that the prevalence of food insecurity among households relying on social assistance is much higher than for households with other main sources of income.

In this report, we go a step further and present the results of a multivariable analysis of the data. This statistical tool allows us to consider several different household characteristics simultaneously to determine their unique contribution to the problem of food insecurity. This is important because characteristics, such as income, family structure, race and ethnicity, housing circumstances, province of residence, etc., are often interrelated with one another.

We ran two multivariable logistic regression models to estimate odds ratios of food insecurity for a particular characteristic, accounting for the variation in others.

The first model shows how socio-demographic characteristics (province of residence, household type, highest level of education, racial/cultural identity and Indigenous status of main income earner, and presence of immigrant in household) relate to household food insecurity when all these characteristics are considered simultaneously.

The second model adds economic characteristics of the household (main source of income, homeownership, income), allowing us to identify the role of economic circumstances in food insecurity and to examine if differences in food insecurity for a sociodemographic characteristic can be explained by households' economic circumstances.

The reference group for each analysis was the largest group within that characteristic. For example, the odds ratios of food insecurity in relation to province of residence are all comparisons with Ontario, the province with the most households.

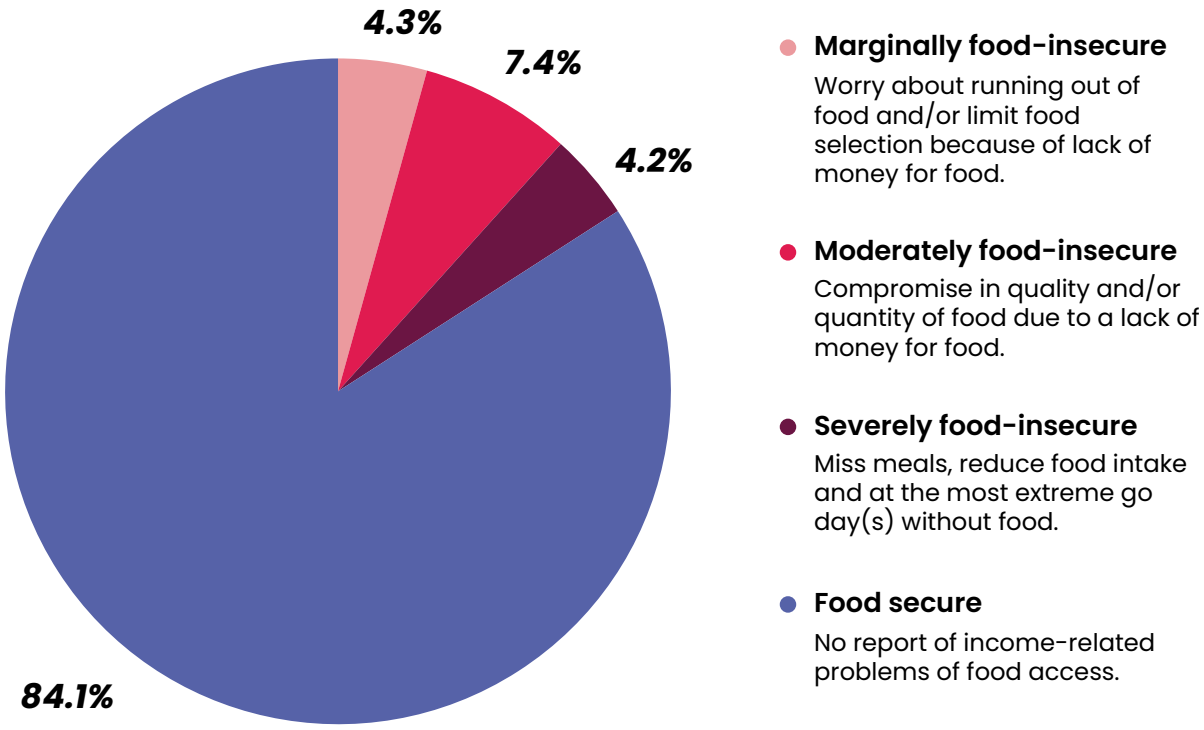
The key findings of these analyses have been incorporated throughout this report. Readers interested in the detailed results and their interpretation can find them in *Appendix J — Adjusted odds of food insecurity in relation to sociodemographic and economic characteristics*.

Prevalence of Food Insecurity in the Ten Provinces in 2021

In 2021, 15.9% of households in the ten provinces experienced some level of food insecurity during the previous 12 months. This represents 2.4 million households, or 5.8 million individuals, including over 1.4 million children under the age of 18. This means that 19.6% of children under 18, or one in five, lived in households that experienced food insecurity in 2021.

The levels of deprivation documented are substantial. 7.4% of households (i.e., 1,108,000 households, amounting to 2.8 million individuals) were moderately food insecure, indicating compromises in the quality and possibly the quantity of food consumed over the past 12 months (Figure 2). 4.2% of households (i.e., 636,000 households, amounting to 1.3 million individuals) were severely food insecure, indicating compromises in the amount of food consumed. Severe food insecurity denotes an extreme level of deprivation that is strongly associated with multiple negative health outcomes, including premature mortality.[9]

Figure 2. Prevalence of household food insecurity in the ten provinces, 2021



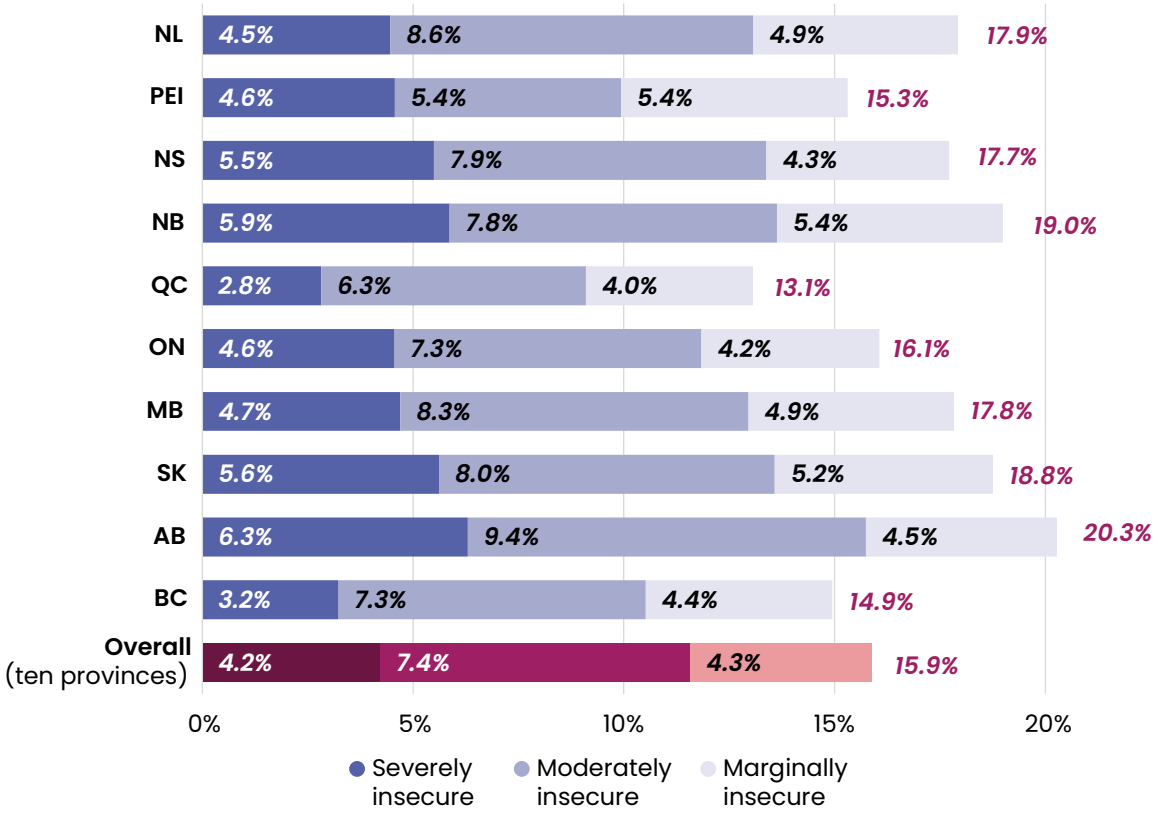
Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

Household Food Insecurity by Province, 2021

Household food insecurity varies across provinces (Figure 3). Alberta had the highest rate of food insecurity at 20.3%. The second-highest prevalence was found in New Brunswick (19.0%), and the third-highest prevalence was found in Saskatchewan (18.8%). Quebec had the lowest prevalence of household food insecurity in 2021, at 13.1%.

Of particular concern is the very high prevalence of severe food insecurity in Alberta (6.3%) and New Brunswick (5.9%). Severe food insecurity was lowest in Quebec (2.8%) and British Columbia (3.2%). *(See Appendix C for a detailed breakdown of household food insecurity by province, 2021)*

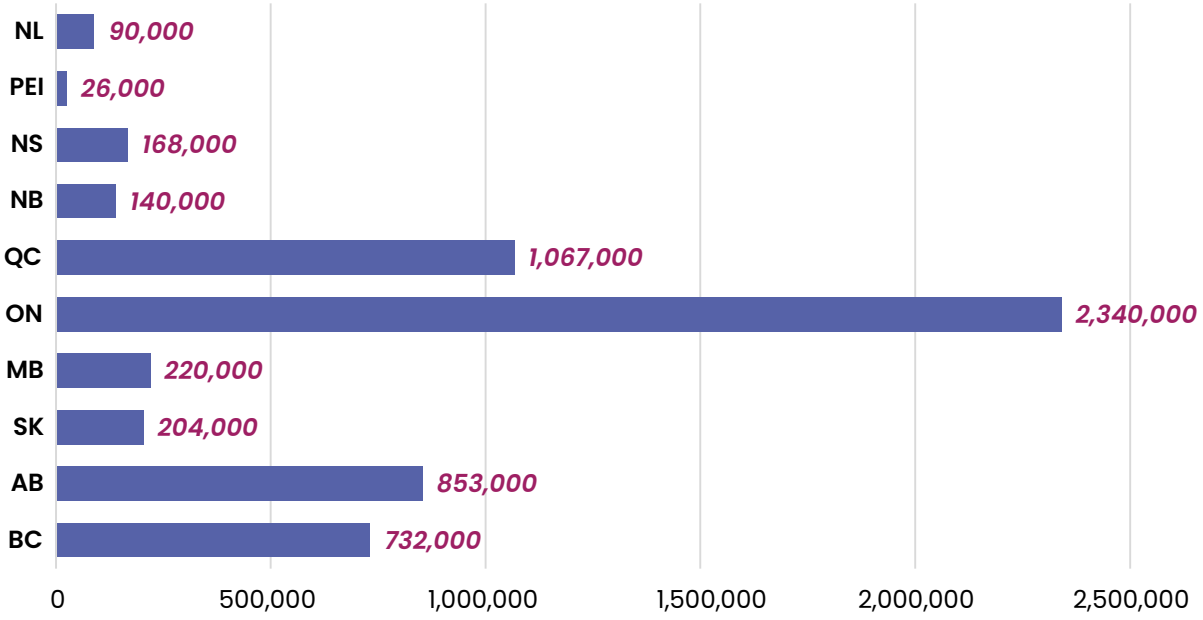
Figure 3. Household food insecurity in Canada by province, 2021



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

Prevalence tells us the proportion of the population or subpopulation experiencing food insecurity. To understand how the problem of food insecurity affects Canadians, it is also instructive to examine the number of individuals living in food-insecure households and how they are distributed across the country (Figure 4).

Figure 4. Number of people living in food-insecure households by province, 2021



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

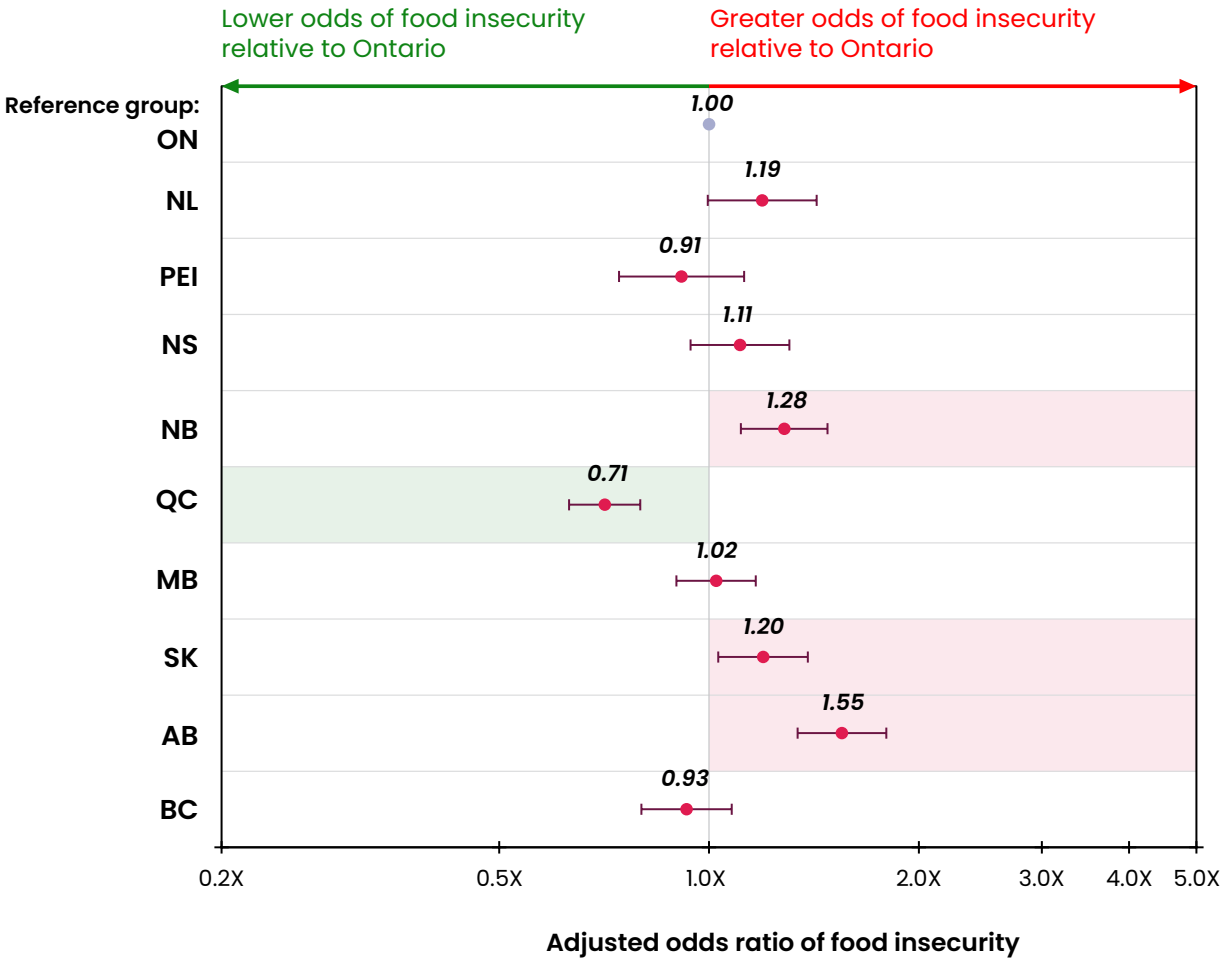
When we account for differences in households' socio-demographic and economic characteristics, Quebec again stands out from the other provinces. In addition to Quebec having the lowest prevalence of household food insecurity in 2021, our multivariable analysis revealed that households in Quebec are less likely to be food-insecure than those in Ontario, even after accounting for sociodemographic and economic characteristics. The finding that living in Quebec provides some protection against household food insecurity has also surfaced in previous research using CCHS data and it warrants further study.[18, 19]

On the other hand, households in Alberta, Saskatchewan, and New Brunswick are more likely to be food-insecure than those in Ontario, after accounting for other household characteristics. Differences in the macroeconomic conditions and policy landscapes in these provinces may help explain the elevated risk.[20]

In Figure 5, provinces with confidence intervals (indicated by the thin black line through the data point) overlapping the vertical axis at 1.0 have odds of

household food insecurity that are not statistically significantly different from the odds in Ontario. Statistically significant differences are also highlighted in green (lower odds of food insecurity) and red (greater odds of food insecurity).

Figure 5. Adjusted odds ratios of food insecurity in relation to province of residence (adjusted for socio-demographic and economic characteristics)



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

What do we know about the prevalence of household food insecurity in the territories?

The most recent data available for the territories currently was collected in 2020 (CIS 2019) and does not include marginal food insecurity for all three territories. In 2020, 46.1% of people in Nunavut, 23.1% of people in Northwest Territories, and 15.3% of people in Yukon lived in moderately or severely food-insecure households.[15]

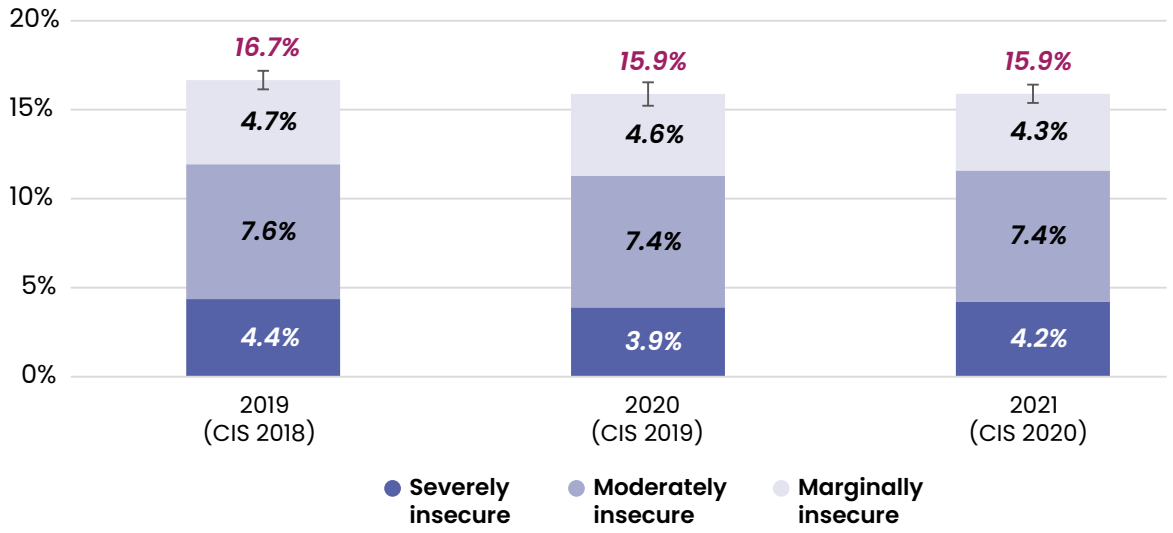
How has food insecurity changed from 2019 to 2021?

The CIS has monitored household food insecurity since 2019, allowing us to look at the change from 2019 to 2021.

Data from CIS suggests that household food insecurity has remained relatively stable from 2019 to 2021. There was a small drop from 2019 to 2020 that has been sustained in 2021, but food insecurity remains a large and serious problem (Figure 6).

The lack of major change in household food insecurity rates from 2019 to 2021 warrants further research because this has been a time of both major economic disruptions and sweeping income supports, wage subsidies, and other temporary interventions at the federal and provincial levels to support households through the height of the COVID-19 pandemic.

Figure 6. Prevalence of household food insecurity in the ten provinces, 2019-2021



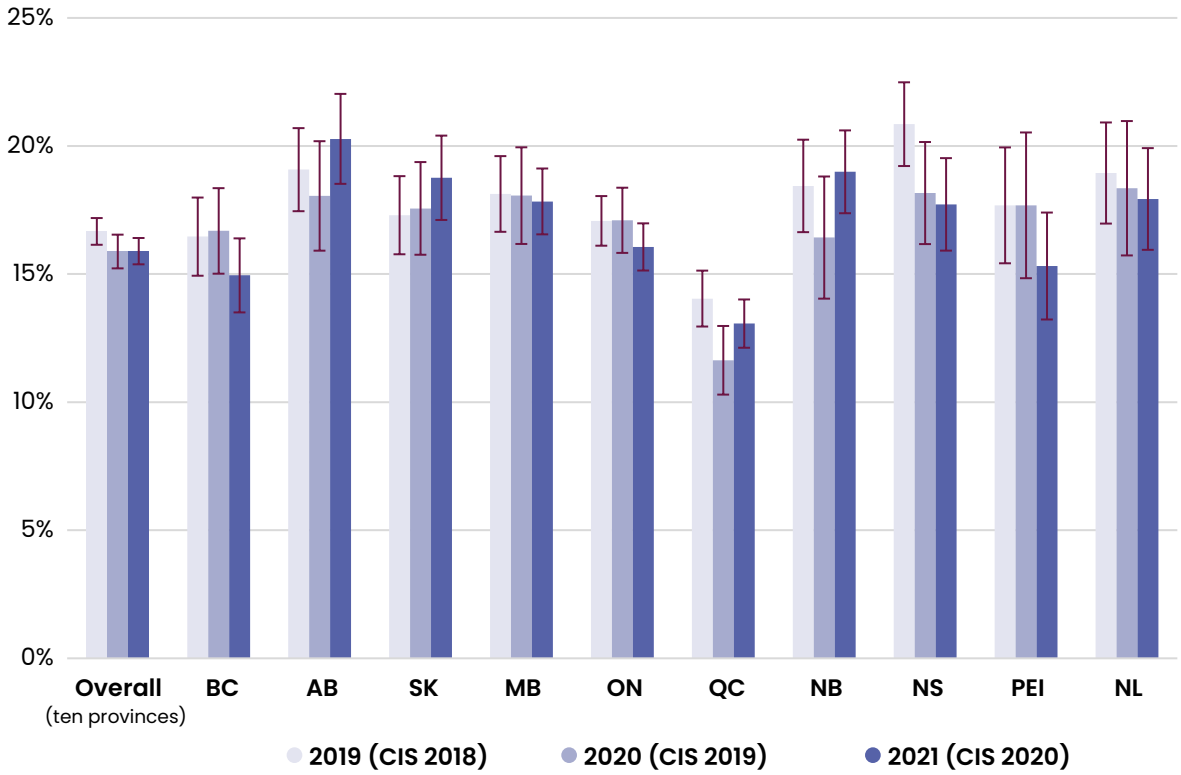
Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

Change in food insecurity within each province, 2019-2021

From 2019 to 2021, the prevalence of food insecurity fluctuated in many provinces, but the prevalence in Quebec was consistently lower than any other province *(See Appendix D for estimates and confidence intervals)*.

When comparing prevalence estimates over time within the provinces (Figure 7), it is important to consider the degree of uncertainty associated with each prevalence estimate (indicated by the thin black line at the top of each column).

Figure 7. Prevalence of household food insecurity by province, 2019-2021



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2018, 2019, 2020.

In addition to showing the 95% confidence intervals around these estimates, we've included statistical tests on the difference between each year for each province. *(See Appendix E for a detailed breakdown of change in household food insecurity by province 2019-2021)*

The most positive observation is the continued decline in food insecurity in Nova Scotia over the 3 years, even though only the difference between 2019 and 2020 was statistically significant.

The marked decreases from 2020 to 2021 in British Columbia and Prince Edward Island are also noteworthy although neither is statistically significant. It will be important to follow the recent decreases to see if they continue in a sustained way and determine what is responsible.

On the other hand, the recent movement toward higher rates of food insecurity in Alberta, Saskatchewan, and New Brunswick from 2020 to 2021, although not large enough to be statistically significant, is concerning.

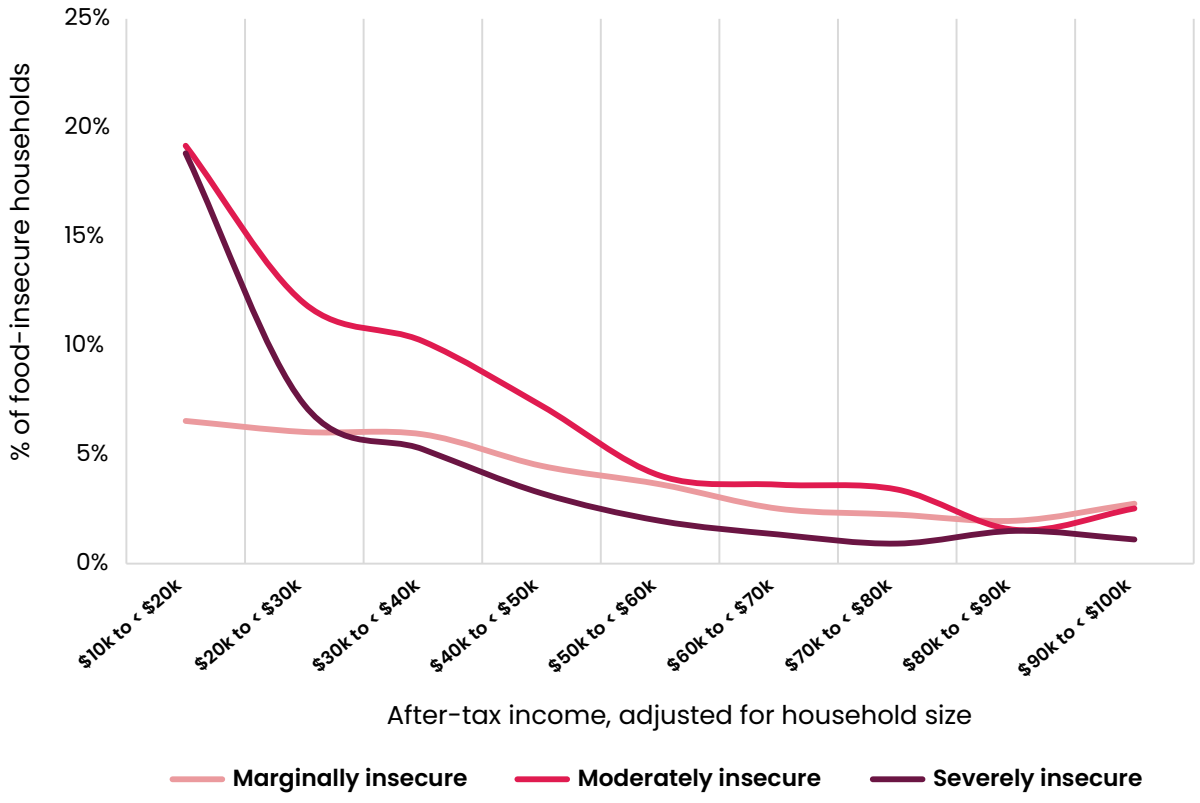
Which Households are Most Vulnerable to Food Insecurity?

Household food insecurity is a measure of material deprivation, tightly linked to indicators of social and economic disadvantage. It is most prevalent among households with inadequate, insecure incomes and limited, if any, financial assets, or access to credit.

There is some measurement error in our mapping of the relationship between food insecurity and income here because the time period covered by the food insecurity measurement on the Canadian Income Survey does not exactly coincide with the measure of income. Nonetheless, household income is a robust predictor of food insecurity (See Appendix J for multivariable analysis).

While the relationship between household income and food insecurity is not a perfect one-to-one relationship, the probability of food insecurity decreases as household after-tax income rises and this pattern is most dramatic at very low levels of household income. Severe food insecurity is particularly sensitive to income (Figure 8).

Figure 8. Food insecurity by household income



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

Food insecurity reflects a household's broader material circumstances beyond the amount of household income, taking into account the stability of that income, assets like property, and other resources a household could draw upon, as well as the cost of living.

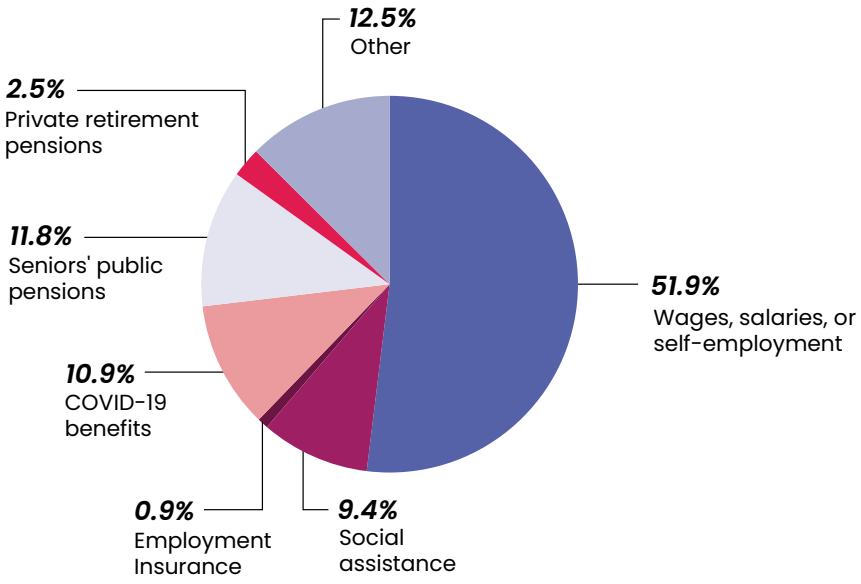
Since 2021 when the food insecurity data in the graph above were collected, Canadians have experienced unprecedented inflation in the prices of food and other basic necessities. If the incomes of lower income households are not increased in proportion to these rising costs (e.g., through indexation of the wages and benefits upon which these households depend), we can expect the prevalence of severe food insecurity to rise.

Food insecurity and main source of income

About one in seven households reliant on wages, salaries, or self-employment were food-insecure in 2021. *(See Appendix F for a detailed breakdown of prevalence by main source of income)*

These households made up half (51.9%) of the food-insecure households in the ten provinces (Figure 9).* *(See Appendix G for proportion of food-insecure households reliant on employment incomes by province)*

Figure 9. Distribution of food-insecure households by main source of income, 2021

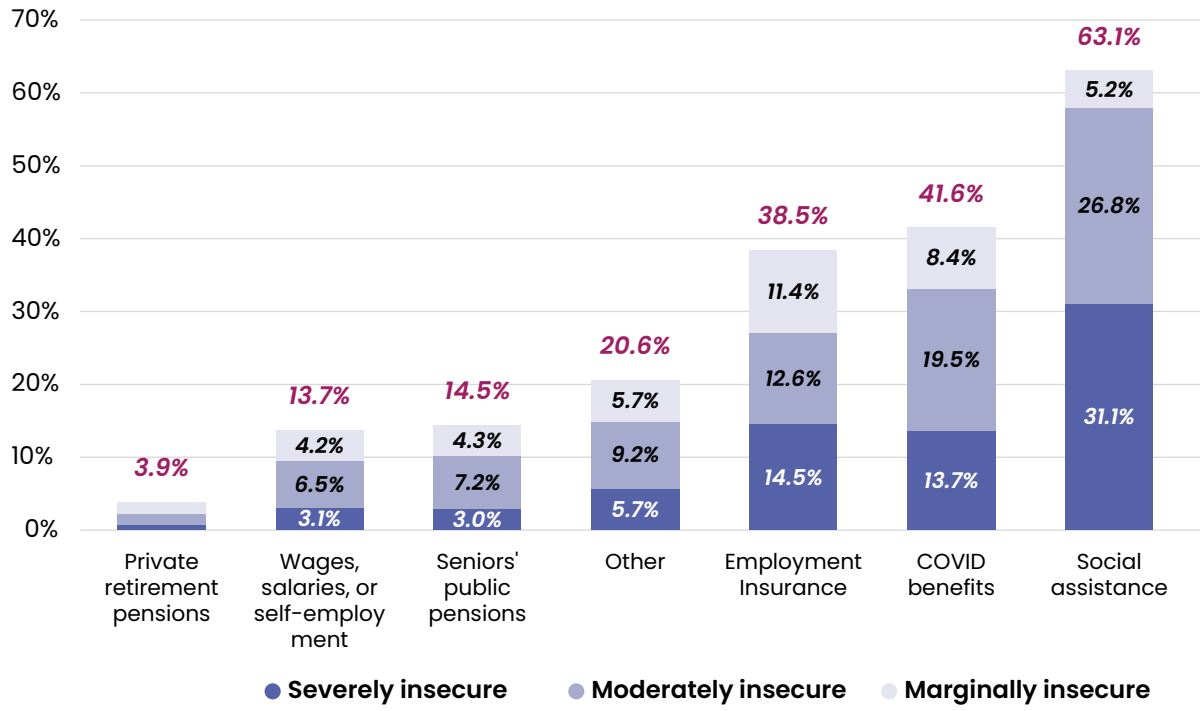


Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

* For more on who in the workforce are most vulnerable to household food insecurity, see McIntyre, L., Bartoo, A. & Emery, J. When working is not enough: food insecurity in the Canadian labour force. Public Health Nutrition 2014;17(1):49-57. https://doi.org/10.1017/S1368980012004053

The prevalence of food insecurity for households reliant on public pensions (Old Age Security, Guaranteed Income Supplement, Canada Pension Plan, Quebec Pension Plan) was similar to those reliant on employment incomes, at 14.5%. Households whose main source of income was private retirement pensions had the lowest rate of food insecurity, at 3.9% (Figure 10).

Figure 10. Food insecurity by main source of household income, 2021



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

The rates of food insecurity among households who faced job disruptions and had to rely on Employment Insurance (EI) or pandemic-related benefits like the Canada Emergency Response Benefit (CERB) were much higher than those reliant on employment incomes.

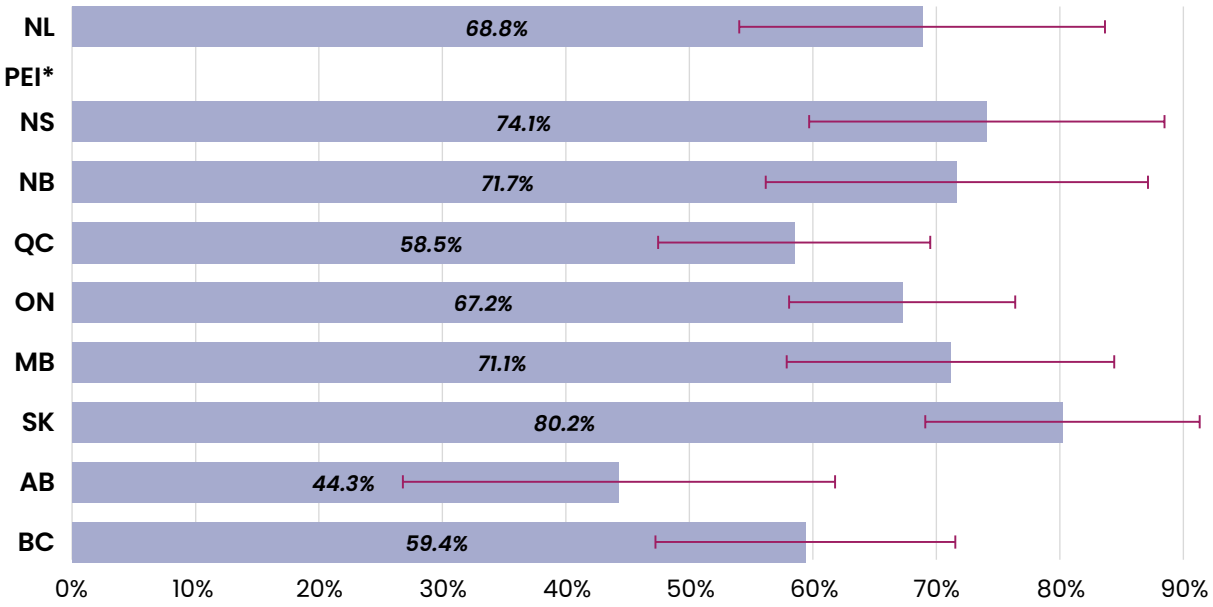
Food insecurity affected 41.6% of households whose main source of income was pandemic-related benefits. Households relying on the CERB or its successor, the Canada Recovery Benefit (CRB), made up 95% of food-insecure households relying on pandemic-related benefits. The remaining 5% were households reporting their main income being the Canada Emergency Student Benefit, Canada Recovery Caregiving Benefit, Canada Recovery Sickness Benefit, one-time federal payment to disabled Canadians, or COVID-19 benefits administered by provincial governments.

Food insecurity also affected 38.5% of households whose main source of income was EI, but the income data covers the 2020 calendar year when EI transitioned into and out of CERB, which may explain the small number of food-insecure households relying on EI compared to pandemic-related benefits during that time.

Households reliant on social assistance (i.e., provincial welfare and disability support programs) had the highest prevalence of food insecurity at 63.1%. Among households reliant on social assistance, the levels of deprivation were substantial, with 26.8% experiencing moderate food insecurity and 31.1% experiencing severe food insecurity. The rate of severe food insecurity among these households is seven times higher than the rate across the ten provinces (4.2%).

Social assistance programs vary considerably across jurisdictions depending on how provincial governments administer them. The highest rate of food insecurity among households relying on social assistance was found in Saskatchewan (80.2%), whereas the lowest rate was found in Alberta (44.3%) (Figure 11).

Figure 11. Proportion of households reliant on social assistance who were food-insecure by province, 2021



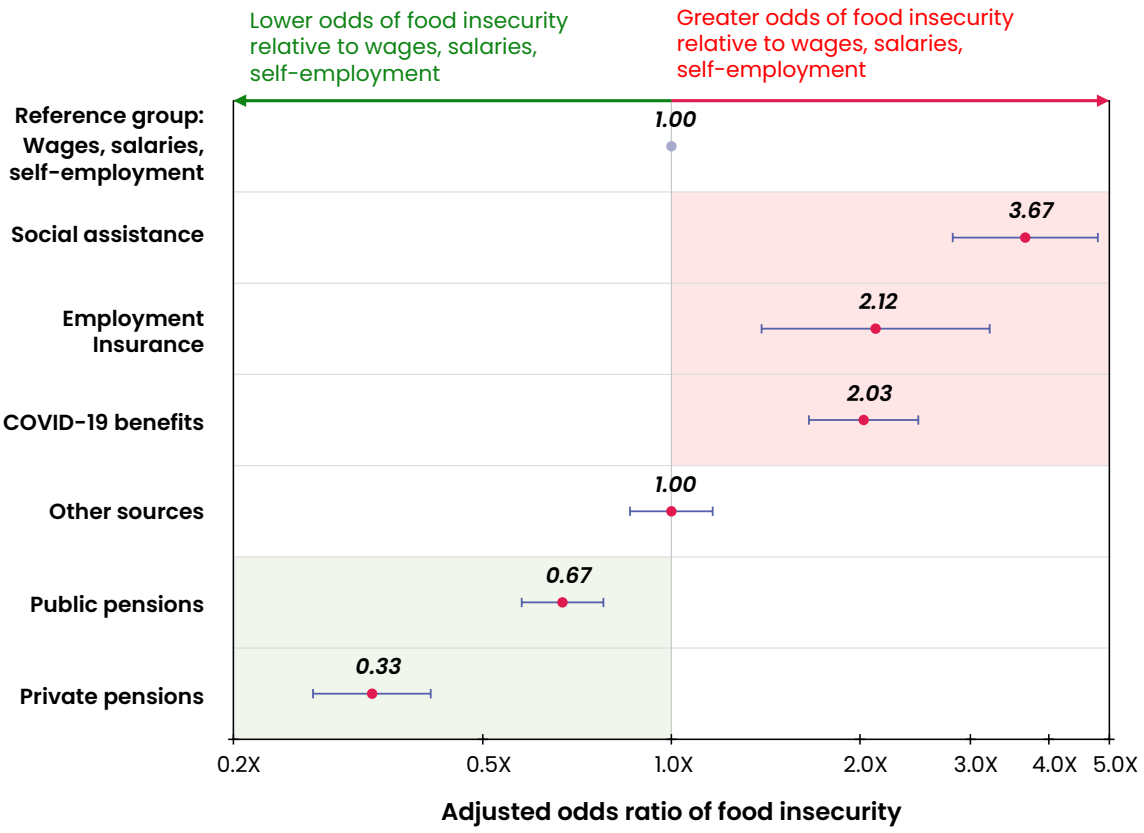
*Prince Edward Island excluded here due to small sample size.

Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

In the past the differences between provinces may have pointed to differences in the generosity of some social assistance programs compared to others, but the introduction of the pandemic benefits complicates matters. Each province handled the interaction between pandemic benefits and their social assistance programs differently, with major changes to eligibility criteria and welfare incomes in some jurisdictions.[21] Some provinces like Alberta also saw major drops in their social assistance caseload as a result of these changes.[22]

Multivariable analysis provides another way to see the elevated vulnerability of food insecurity associated with public income support programs, aside from public pensions (Figure 12). Being outside the workforce doesn't come with heightened food insecurity if you are a senior – it does only if you aren't.

Figure 12. Adjusted odds ratios of food insecurity in relation to main source of income (adjusted for socio-demographic and economic characteristics)



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

Although the prevalence of food insecurity is similar among households reliant on employment incomes and those reliant on public pensions, when we take into account households' socio-demographic characteristics and economic circumstances, relying on public pensions is associated with 33% lower odds of food insecurity (Figure 12). This finding is consistent with the results of earlier population surveys and research demonstrating the protective effect of Canada's public pension system.[23]

The lower odds of food insecurity remaining after adjusting for other economic characteristics like household income point to the importance of the stability of pension incomes, compared to employment incomes. Being a senior also comes with in-kind benefits that can reduce their cost of living. Relative to other public income support programs, public pensions provide both more adequate and more stable income indexed to inflation, allowing for a greater buffer against financial shocks.

The protective effect of being reliant on private pensions appears even greater than public pensions, with these households having a third of the odds of food insecurity compared to those relying on employment incomes.

On the other hand, relying on social assistance is associated with the greatest odds of food insecurity after accounting for other socio-demographic and economic characteristics.

The high risk of food insecurity remaining despite accounting for characteristics like household income and homeownership suggests there may be other aspects of social assistance determining households' financial circumstances.

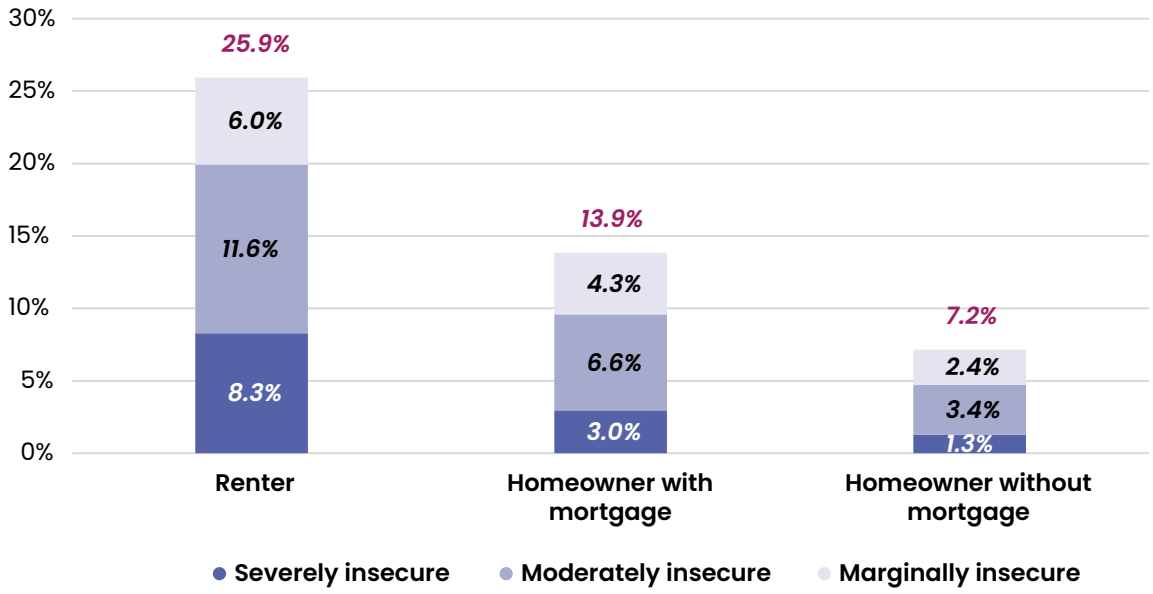
For example, households relying on social assistance are likely unable to have a financial cushion to buffer shocks due to the programs' strict asset limits and low income limiting their ability to build sufficient savings. However, we didn't have data on households' savings and assets to include in the models.

Food insecurity and homeownership

Owning a home is an important source of assets and debts in Canada. Food insecurity is much more prevalent among households who rent rather than own their dwelling, with 25.9% of renters affected by some degree of food insecurity (Figure 13). However, the prevalence of food insecurity among homeowners with a mortgage (13.9%) is greater than that of mortgage-free homeowners (7.2%). *(See Appendix F for a detailed breakdown)*

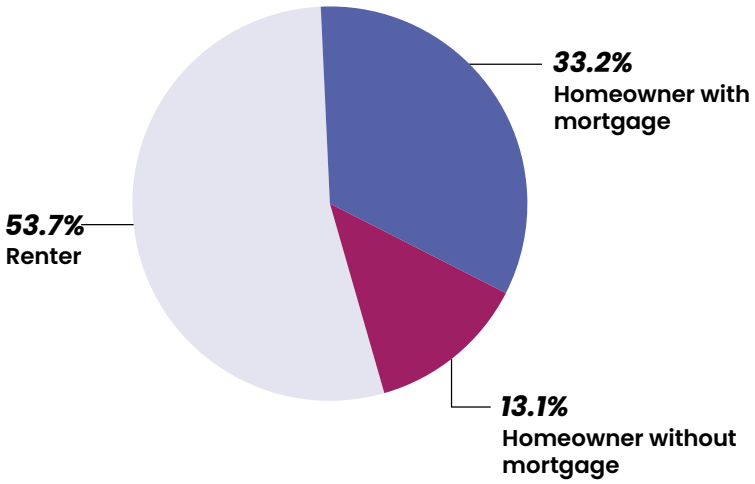
Renters made up the majority (53.7%) of food-insecure households in the ten provinces (Figure 14). Homeowners with mortgages made up 33.2% of food-insecure households. Previous research on the relationship between homeownership and food insecurity found that the most vulnerable among homeowners with and without mortgages were those with low-value homes.[24]

Figure 13. Household food insecurity by homeownership, 2021



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

Figure 14. Distribution of food-insecure households by homeownership, 2021



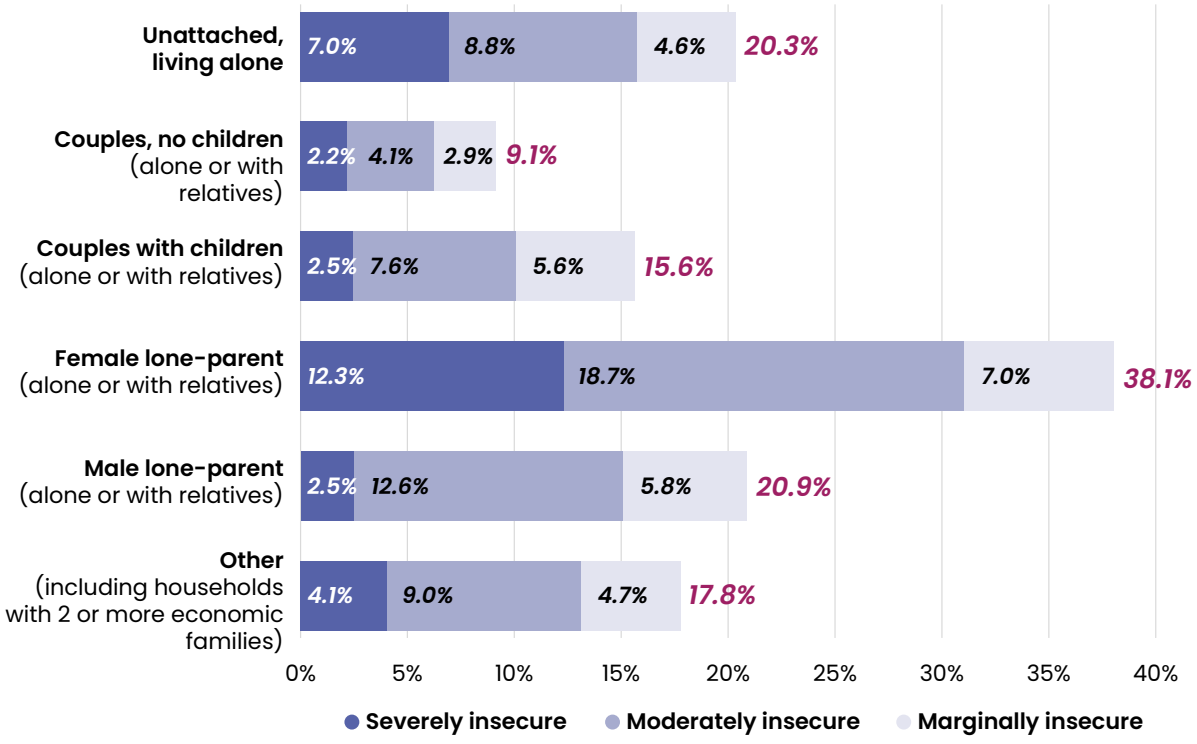
Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

After adjusting for other sociodemographic and economic characteristics, the same pattern persists — renters are more vulnerable to food insecurity than homeowners, while owning without a mortgage means lower risk of food insecurity than owning with a mortgage *(See Appendix J for details of multivariable analysis)*. These findings are consistent with the results of two recent Canadian studies examining the protective association of homeownership with food insecurity.[24, 25]

Food insecurity and household type

Female lone-parent households had the highest rate of food insecurity at 38.1%, followed by male lone-parent households at 20.9% and unattached individuals living alone at 20.3% (Figure 15). In 2021, 15.6% of couples with children were food insecure. Couples without children had the lowest rate of food insecurity at 9.1%. *(See Appendix F for a detailed breakdown)*

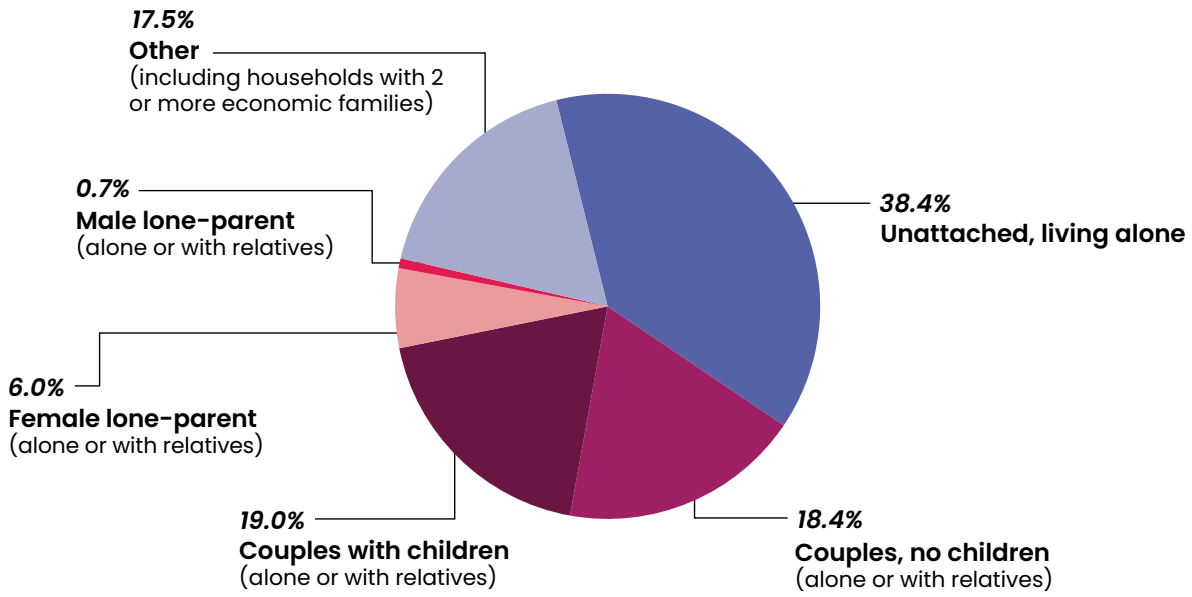
Figure 15. Household food insecurity by household type, 2021



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

Unattached individuals living alone made up over a third of the food insecure households, the largest share for household types (Figure 16).

Figure 16. Distribution of food-insecure households by household type, 2021



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

Our multivariable analysis suggests that some of the difference in food insecurity rates between couples without children and the other household types can be explained by their economic circumstances.

However, after accounting for the full range of socio-demographic and economic characteristics, we still find that when compared to couples without children, couples with children have 17% higher odds of being food-insecure and unattached individuals living alone have 26% higher odds (Figure 17). The odds of being food-insecure for a female lone-parent household is over twice the odds of a couple without children.

Figure 17. Adjusted odds ratios of food insecurity in relation to household type (adjusted for socio-demographic and economic characteristics)

Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

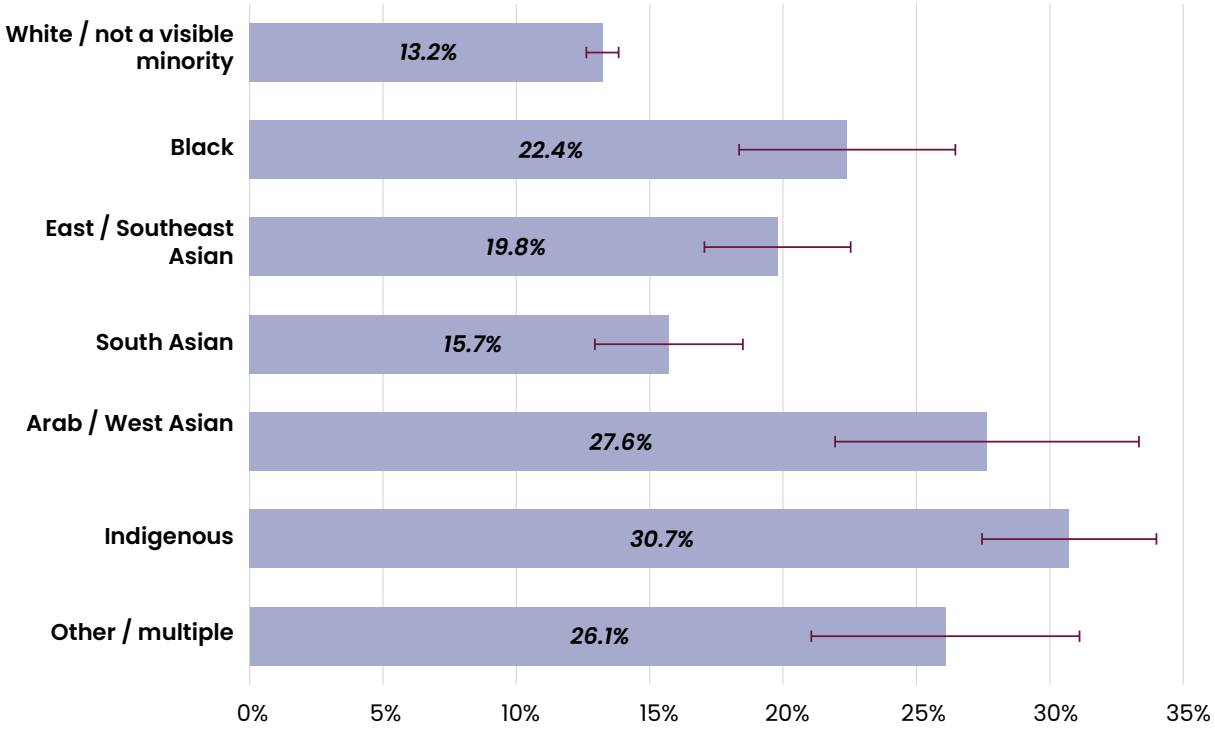
Food insecurity and immigration

Household food insecurity is slightly more prevalent among households with an immigrant in them (17.2%) than those without (15.3%). However, the presence of an immigrant in the household was not associated with vulnerability to household food insecurity when accounting for other sociodemographic characteristics. *(See Appendix J for details of multivariable analysis)*

Food insecurity and racial/cultural identity & Indigenous status

People identifying as white have a lower prevalence of food insecurity than any other group (Figure 18). The highest percentage of individuals living in food-insecure households was found among Indigenous Peoples at 30.7%. *(See Appendix H for a detailed breakdown)*

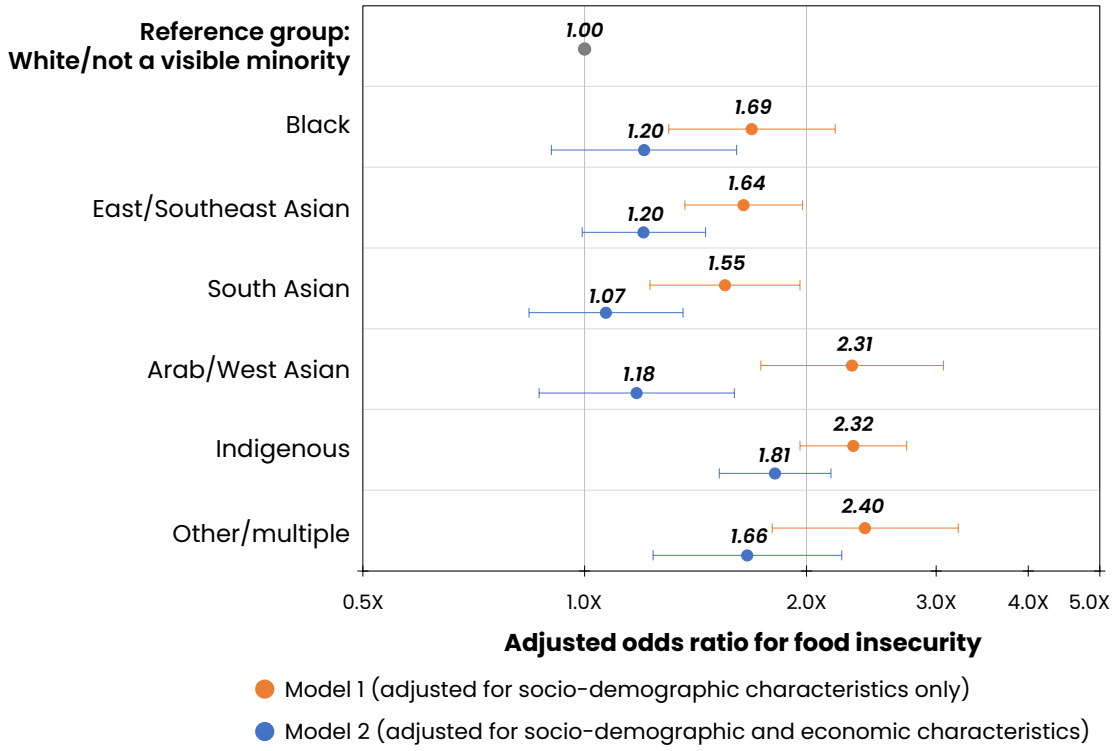
Figure 18. Percentage of individuals living in food-insecure households by racial/cultural identity & Indigenous status, 2021



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

We also examined what happens to the relationship between the racial/cultural identity and Indigenous status of the household's main income earner and household food insecurity when we consider other household characteristics. Figure 19 shows how much more likely households with a person from a visible minority as a main income earner are to be food-insecure, compared to those with a white main income earner.

Figure 19. Adjusted odds ratios of food insecurity in relation to racial/cultural identity and Indigenous status of main income earner



Data Source: Statistics Canada, Canadian Income Survey(CIS)2020.

After accounting for socio-demographic characteristics, it is apparent that being a visible minority means being more vulnerable to household food insecurity (as indicated by the orange dots all greater than 1).

However, this vulnerability is largely explained by differences in economic circumstances (blue dots). Once we account for income, main source of income, and homeownership, only households whose main income earner is Indigenous remain more vulnerable. Even after accounting for other factors, those households are almost twice as likely to be food insecure as those with white main income earners.

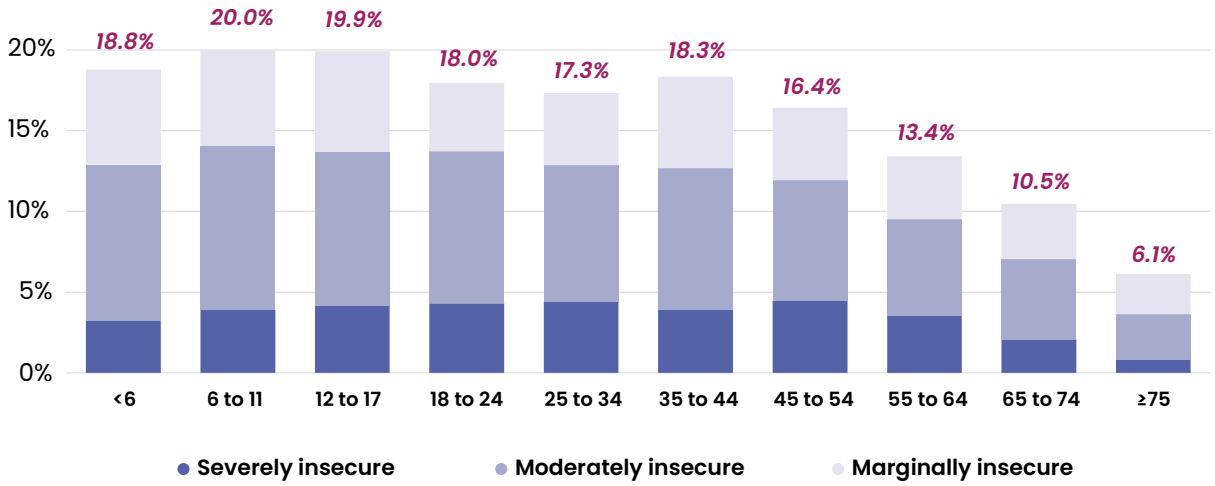
While these results highlight the ways in which food insecurity is racialized in Canada, the findings from the CIS tell a different story from what we had come to understand about food insecurity among Black households using CCHS.[19, 26]

The CIS only began collecting race-based data on CIS 2020, so this is a first look at the relationship between food insecurity and race through CIS. It will be important to continue examining this relationship through future cycles of the CIS.

How does food insecurity relate to age?

The chance of someone living in a food-insecure household differs greatly depending on how old they are. Looking at the percentage of individuals living in food-insecure households across age groups, we can see the higher rates of food insecurity among working-age adults and children, compared to seniors 65 years of age and older (Figure 20). **The prevalence of household food insecurity among children and young adults is more than triple the prevalence for adults 75 and older**. *(See Appendix I for a detailed breabkdown)*

Figure 20. Percentage of individuals living in food-insecure households by age group, 2021



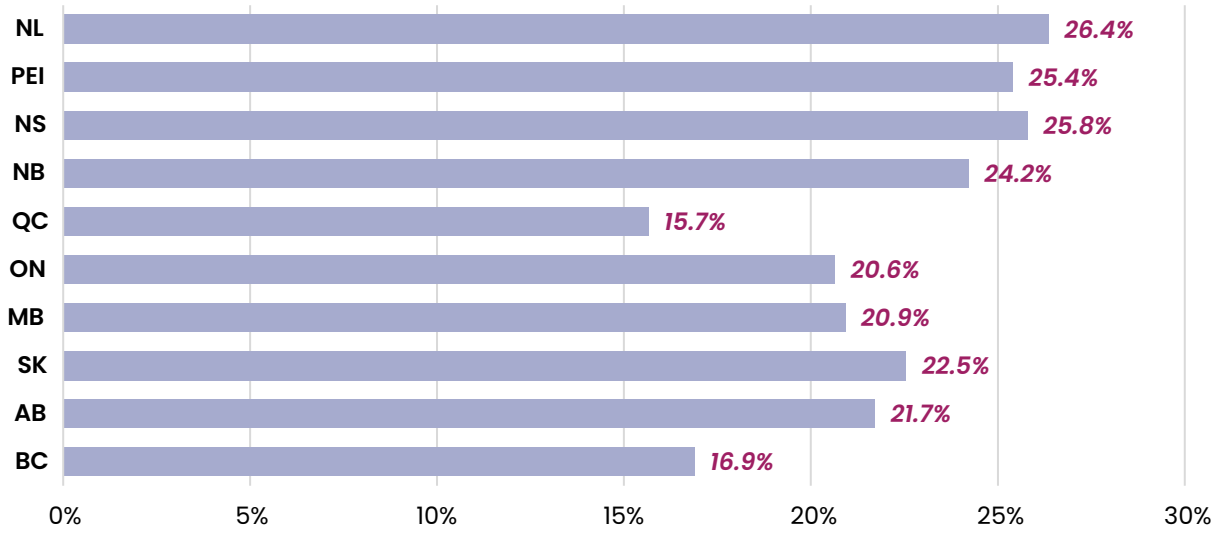
Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

It is especially concerning that so many children are living in food-insecure households, given the negative and long-lasting impacts that household food insecurity can have on their health.

In 2021, 19.6% of children under 18 years of age in the ten provinces (an estimated 1,388,000 children) lived in households affected by some level of food insecurity. Over two-thirds of these children, almost 1 million children, were in moderately or severely food-insecure households. *(See Appendix K for a detailed breakdown)*

The prevalence of children living in food-insecure households differs across the provinces, ranging from 15.7% in Quebec to 26.4% in Newfoundland and Labrador (Figure 21).

Figure 21. Proportion of children under 18 who lived in food-insecure households



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

Conclusion

In 2021, 5.8 million Canadians lived in food-insecure households across the ten provinces. Unlike some other recent reports that have suggested dramatic changes in food insecurity through the pandemic,[27-29] we find little change in the high rate of food insecurity since 2019.

5.8 million people | **1.4 million children**

lived in food-insecure households in 2021

Canada has systematically monitored household food insecurity since 2005. We began reporting the statistics from this monitoring with the goal of providing a tool to track trends and identify priorities for intervention.

After six PROOF reports, the story of food insecurity in Canada remains the same — it is a large problem that hasn't gotten any better over the past 16 years and requires more effective responses from provincial and federal governments.

The socio-demographic profile of food-insecure households highlights the ways in which food insecurity tracks with other markers of social and economic disadvantage in Canada. Those most at risk are households with low incomes and limited assets. Indigenous households are disproportionately impacted by food insecurity, as are those led by female lone-parents and those reliant on public income supports other than public pensions.

The patterns of vulnerability documented in this report are not new. Indeed, the same household circumstances and demographic characteristics associated with heightened risk of food insecurity here have been observed consistently since indicators of household food insecurity were first included on population surveys in the 1990s. The societal conditions that give rise to and perpetuate household food insecurity in Canada are clearly deeply entrenched.

For government responses to be effective they need to be grounded in evidence, targeted to the causes of household food insecurity — not its symptoms — and evaluated in relation to their impact on food insecurity prevalence and severity. Food banks, charitable meal programs, and other community food initiatives cannot be expected to solve this problem.

The COVID-19 pandemic sparked unprecedented investment of public funds for food charity as a policy response to food insecurity by both federal and provincial governments.[30-35] This funding activity has continued into 2021 and 2022, now in response to the record levels of inflation and rising costs of living.[36-39]

Given the ineffectiveness of food charity to reduce food insecurity,[40-43] governments' decisions to fund charitable food providers as a primary response to food insecurity are ill-founded. It should stop in favour of policies that better support the adequacy of incomes in vulnerable households.

For government responses to be effective, they must target the causes of household food insecurity — not its symptoms.

Canadians have experienced unprecedented inflation since 2021, raising serious concerns about the already high rates of food insecurity. If the incomes of lower-income households do not increase in line with the rising costs of living (e.g., through increases and indexation of the wages and benefits these households depend on), we can expect the prevalence and severity of food insecurity to increase.

There is now ample evidence to inform government responses, with several recent studies documenting the positive impact of federal and provincial policy interventions that have improved the financial resources of low-income households.[20, 23, 44-48]

Recommendations

Tackling the conditions that give rise to food insecurity means re-evaluating the income supports and protections that are currently provided to very low-income, working-aged Canadians and their families.

This means:

1. **Addressing the vulnerability of households reliant on employment incomes but still unable to make ends meet.**
2. **Ensuring that working-aged adults not in the workforce also have sufficient incomes to meet basic needs.**

What we've learned about the pandemic response is that about 40% of households who had to rely on Employment Insurance or pandemic-related benefits (i.e., CERB, CRB) were food insecure.

We continued to see that households relying on social assistance are among the most likely to be food insecure. Despite the variation between provinces, the prevalence of food insecurity for those relying on social assistance remained exceedingly high everywhere.

Together, these income support programs made up our social safety net for working age Canadians unable to make ends meet through employment, savings, or other resources during the pandemic. It is clear from the findings of this report that these programs did not do enough to insulate households from food insecurity.

Relying on public income supports does not have to be synonymous with food insecurity. The much lower vulnerability of food insecurity for households reliant on public pensions compared to those reliant on incomes from wages and salaries demonstrates that public income supports can be designed better to reduce food insecurity. However, government priorities have not aligned with the vulnerability shown here.

The recent increase to the Old Age Supplement payments for seniors over 75 years of age and the federal government's continued focus on policies for the middle class stand in stark contrast to the clear need to support working age Canadians at the bottom end of the income spectrum.[49, 50]

Policies, like the Canada Child Benefit and Canada Workers Benefit, need to be re-examined to better support these households. One promising approach would be to extend a guaranteed income to all Canadians through a basic income.

Provinces are also in a position to do more to reduce food insecurity by increasing minimum wage, increasing social assistance, and lowering the income tax for the lowest income households.[20]

Given that the provinces and territories are responsible for health care, they bear the costs of food insecurity insofar as it increases people's needs for health services.[13, 14] The marked variation in food insecurity prevalence across the provinces and the low rates of food insecurity in Quebec highlight the importance of provincial actions.

If incomes don't keep up with the record inflation, we can expect food insecurity to worsen. Without deliberate, evidence-based policy interventions to reduce food insecurity, this problem will continue to fester, with devastating implications for the health and well-being of those affected.

APPENDIX A

Household Food Security Survey Module (HFSSM)

STAGE 1

Questions 1 - 5 — ask all households

Now I'm going to read you several statements that may be used to describe the food situation for a household. Please tell me if the statement was often true, sometimes true, or never true for you and other household members in the past 12 months.

Q1. The first statement is: you and other household members worried that food would run out before you got money to buy more. Was that often true, sometimes true, or never true in the past 12 months?

1. Often true
2. Sometimes true
3. Never true
- Don't know / refuse to answer

Q2. The food that you and other household members bought just didn't last, and there wasn't any money to get more. Was that often true, sometimes true, or never true in the past 12 months?

1. Often true
2. Sometimes true
3. Never true
- Don't know / refuse to answer

Q3. You and other household members couldn't afford to eat balanced meals. In the past 12 months was that often true, sometimes true, or never true?

1. Often true
2. Sometimes true
3. Never true
- Don't know / refuse to answer

IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK Q4 AND Q5; OTHERWISE, SKIP TO FIRST LEVEL SCREEN

Now I'm going to read a few statements that may describe the food situation for households with children.

Q4. You or other adults in your household relied on only a few kinds of low-cost food to feed the child(ren) because you were running out of money to buy food. Was that often true, sometimes true, or never true in the past 12 months?

1. Often true
2. Sometimes true
3. Never true
- Don't know / refuse to answer

Q5. You or other adults in your household couldn't feed the child(ren) a balanced meal, because you couldn't afford it. Was that often true, sometimes true, or never true in the past 12 months?

1. Often true
2. Sometimes true
3. Never true
- Don't know / refuse to answer

FIRST LEVEL SCREEN (screener for Stage 2): If AFFIRMATIVE RESPONSE to ANY ONE of Q1-Q5 (i.e., "often true" or "sometimes true"), then continue to STAGE 2; otherwise, skip to end.

STAGE 2

Questions 6-10 – ask households passing the First Level Screen

IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK Q6; OTHERWISE SKIP TO Q7

Q6. The child(ren) were not eating enough because you and other adult members of the household just couldn't afford enough food. Was that often, sometimes or never true in the past 12 months?

1. Often true
2. Sometimes true
3. Never true
- Don't know / refuse to answer

The following few questions are about the food situation in the past 12 months for you or any other adults in your household.

Q7. In the past 12 months, since last [current month] did you or other adults in your household ever cut the size of your meals or skip meals because there wasn't enough money for food?

1. Yes
2. No (Go to Q8)

- Don't know / refuse to answer

Q7b. How often did this happen?

1. Almost every month
2. Some months but not every month
3. Only 1 or 2 months

- Don't know / refuse to answer

Q8. In the past 12 months, did you (personally) ever eat less than you felt you should because there wasn't enough money to buy food?

1. Yes
2. No

- Don't know / refuse to answer

Q9. In the past 12 months, were you (personally) ever hungry but didn't eat because you couldn't afford enough food?

1. Yes
2. No

- Don't know / refuse to answer

Q10. In the past 12 months, did you (personally) lose weight because you didn't have enough money for food?

1. Yes
2. No

- Don't know / refuse to answer

SECOND LEVEL SCREEN (screener for Stage 3): If AFFIRMATIVE RESPONSE to ANY ONE of Q6-Q10, then continue to STAGE 3; otherwise, skip to end.

STAGE 3

Questions 11-15 – ask households passing the Second Level Screen

Q11. In the past 12 months, did you or other adults in your household ever not eat for a whole day because there wasn't enough money for food?

1. Yes
2. No (IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK Q12; OTHERWISE SKIP TO END)
- Don't know / refuse to answer

Q11b. How often did this happen?

1. Almost every month
2. Some months but not every month
3. Only 1 or 2 months
- Don't know / refuse to answer

IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK Q12-15; OTHERWISE SKIP TO END

Now, a few questions on the food experiences for children in your household.

Q12. In the past 12 months, did you or other adults in your household ever cut the size of any of the children's meals because there wasn't enough money for food?

1. Yes
2. No
- Don't know / refuse to answer

Q13. In the past 12 months, did any of the children ever skip meals because there wasn't enough money for food?

1. Yes
2. No
- Don't know / refuse to answer

Q13b. How often did this happen?

1. Almost every month
2. Some months but not every month
3. Only 1 or 2 months

- Don't know / refuse to answer

Q14. In the past 12 months, were any of the children ever hungry but you just couldn't afford more food?

1. Yes
2. No

- Don't know / refuse to answer

Q15. In the past 12 months, did any of the children ever not eat for a whole day because there wasn't enough money for food?

1. Yes
2. No

- Don't know / refuse to answer

End of module

APPENDIX B

Determining food security status based on 18-item module

Status	Interpretation	10 item adult food security scale	8 item child food security scale
Food secure	No report of income-related problems of food access.	No items affirmed	No items affirmed
Marginally food insecure	Some indication of worry or an income-related barrier to adequate, secure food access	Affirmed no more than 1 item on either scale	
Moderately food insecure	Compromise in quality and/or quantity of food consumed by adults and/or children due to a lack of money for food.	2 to 5 affirmative responses	2 to 4 affirmative responses
Severely food insecure	Disrupted eating patterns and reduced food intake among adults and/or children	6 or more affirmative responses	5 or more affirmative responses

Note: In cases where a household meets the condition of two different classifications (that is, different status on the child and adult scales), the household status is given the more severe classification).

Adapted from: https://www.canada.ca/en/health-canada/services/food-nutrition/food-nutrition-surveillance/health-nutrition-surveys/canadian-community-health-survey-cchs/household-food-insecurity-canada-overview/determining-food-security-status-food-nutrition-surveillance-health-canada.html

APPENDIX C

Prevalence of household food insecurity by province, 2021

		Food secure		Total Food insecure			Marginally food insecure		Moderately food insecure		Severely food insecure	
Province	Total households	Number of households	Percent of households	Number of households	Percent of households	95% CI	Number of households	Percent of households	Number of households	Percent of households	Number of households	Percent of households
NL	224,000	184,000	82.1%	40,000	17.9%	15.9% - 19.9%	11,000	4.9%	19,000	8.6%	10,000	4.5%
PEI	67,000	57,000	84.7%	10,000	15.3%	13.2% - 17.4%	4,000	5.4%	4,000	5.4%	3,000	4.6%
NS	417,000	343,000	82.3%	74,000	17.7%	15.9% - 19.5%	18,000	4.3%	33,000	7.9%	23,000	5.5%
NB	335,000	272,000	81.0%	64,000	19.0%	17.4% - 20.6%	18,000	5.4%	26,000	7.8%	20,000	5.9%
QC	3,699,000	3,215,000	86.9%	483,000	13.1%	12.1% - 14.0%	147,000	4.0%	232,000	6.3%	104,000	2.8%
ON	5,689,000	4,775,000	83.9%	914,000	16.1%	15.1% - 17.0%	240,000	4.2%	414,000	7.3%	259,000	4.6%
MB	508,000	417,000	82.2%	91,000	17.8%	16.6% - 19.1%	25,000	4.9%	42,000	8.3%	24,000	4.7%
SK	444,000	361,000	81.2%	83,000	18.8%	17.1% - 20.4%	23,000	5.2%	35,000	8.0%	25,000	5.6%
AB	1,598,000	1,274,000	79.7%	324,000	20.3%	18.5% - 22.0%	72,000	4.5%	151,000	9.4%	101,000	6.3%
BC	2,075,000	1,765,000	85.1%	310,000	14.9%	13.5% - 16.4%	92,000	4.4%	151,000	7.3%	67,000	3.2%

APPENDIX D

Provincial rates of household food insecurity, 2019-2021

	2019 (CIS 2018)		2020 (CIS 2019)		2021 (CIS 2020)	
Province	**Total food insecure (%)**	**95% CI**	**Total food insecure (%)**	**95% CI**	**Total food insecure (%)**	**95% CI**
NL	18.9%	17.0% - 20.9%	18.4%	15.7% - 21.0%	17.9%	15.9% - 19.9%
PEI	17.7%	15.4% - 19.9%	17.7%	14.8% - 20.5%	15.3%	13.2% - 17.4%
NS	20.9%	19.2% - 22.5%	18.2%	16.2% - 20.2%	17.7%	15.9% - 19.5%
NB	18.4%	16.6% - 20.2%	16.4%	14.0% - 18.8%	19.0%	17.4% - 20.6%
QC	14.0%	13.0% - 15.1%	11.6%	10.3% - 13.0%	13.1%	12.1% - 14.0%
ON	17.1%	16.1% - 18.0%	17.1%	15.8% - 18.4%	16.1%	15.1% - 17.0%
MB	18.1%	16.7% - 19.6%	18.1%	16.2% - 19.9%	17.8%	16.6% - 19.1%
SK	17.3%	15.8% - 18.8%	17.6%	15.8% - 19.4%	18.8%	17.1% - 20.4%
AB	19.1%	17.5% - 20.7%	18.1%	15.9% - 20.2%	20.3%	18.5% - 22.0%
BC	16.5%	14.9% - 18.0%	16.7%	15.0% - 18.4%	14.9%	13.5% - 16.4%

APPENDIX E

Change in household food insecurity by province, 2019-2021

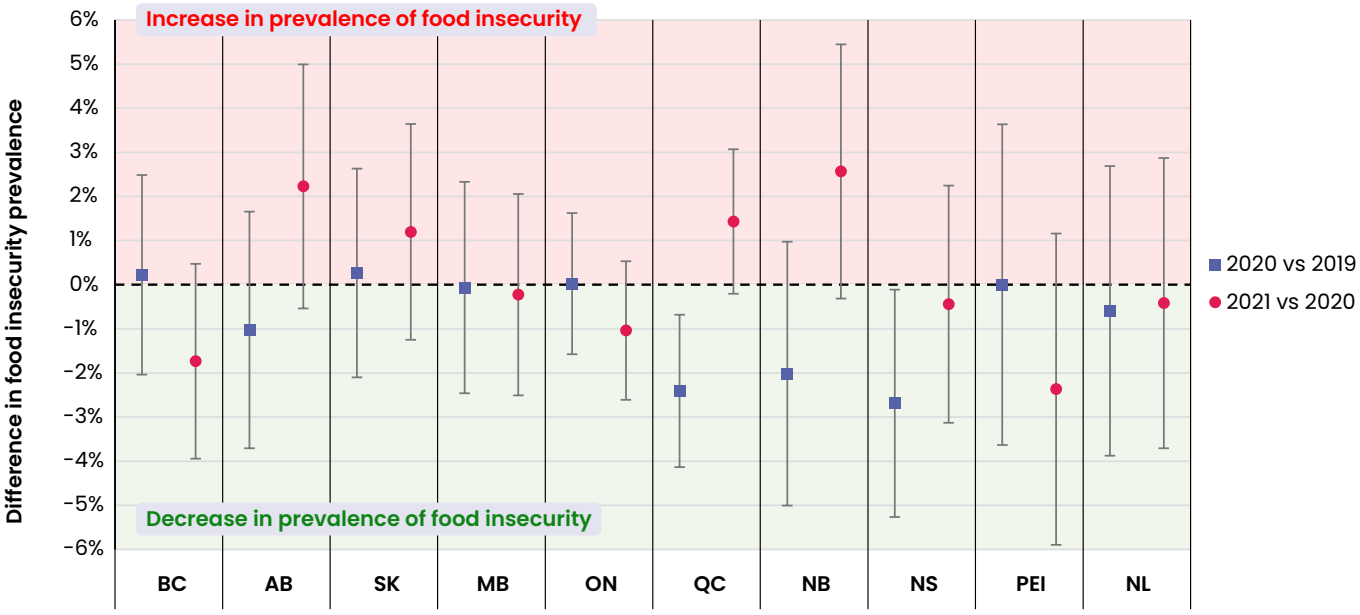
How to interpret

The graph below shows the change in the prevalence of household food insecurity from 2019 to 2020 and 2020 to 2021 for each province. Where the data points are above the horizontal dotted line at 0%, there was an increase in the prevalence of food insecurity for that province during those years. However, it is important to consider the confidence intervals (black bars). If the black bars cross the horizontal line, the change was not statistically significant. The only statistically significant changes were the decrease in Quebec between 2019 to 2020 and in Nova Scotia between 2019 and 2020.

As described in this report, although not large enough to be statistically significant, other changes are noteworthy given their size and direction. It will be important to follow the recent decreases in Nova Scotia, British Columbia, and Prince Edward Island to see if they continue in a sustained way and determine what factors contributed to the decline.

On the other hand, the recent movement toward higher rates of food insecurity in Alberta, Saskatchewan, and New Brunswick from 2020 to 2021, although not statistically significant, are concerning.

Change in household food insecurity by province, 2019-2021



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

	Difference in prevalence of food insecurity between 2020 and 2019	95% CI	Difference in prevalence of food insecurity between 2021 and 2020	95%CI
NL	-0.59%	(-3.88%, 2.69%)	-0.42%	(-3.71%, 2.87%)
PEI	0.00%	(-3.63%, 3.64%)	-2.37%	(-5.90%, 1.16%)
NS	-2.69%	(-5.27%, -0.11%)	-0.44%	(-3.13%, 2.25%)
NB	-2.02%	(-5.01%, 0.97%)	2.57%	(-0.31%, 5.45%)
QC	-2.41%	(-4.14%, -0.68%)	1.43%	(-0.21%, 3.07%)
ON	0.02%	(-1.58%, 1.62%)	-1.04%	(-2.61%, 0.53%)
MB	-0.07%	(-2.46%, 2.33%)	-0.23%	(-2.51%, 2.06%)
SK	0.26%	(-2.10%, 2.63%)	1.20%	(-1.25%, 3.64%)
AB	-1.03%	(-3.71%, 1.66%)	2.23%	(-0.54%, 4.99%)
BC	0.22%	(-2.04%, 2.48%)	-1.74%	(-3.94%, 0.47%)

APPENDIX F

Prevalence and number of household food security and insecurity, by selected household characteristics, 2021

		Food secure		Food insecure		Marginally insecure		Moderately insecure		Severely insecure	
	Total households	Number of households	Percentage of households	Number of households	Percentage of households	Number of households	Percentage of households	Number of households	Percentage of households	Number of households	Percentage of households
Household type											
Unattached living alone	4,512,000	3,594,000	79.7%	918,000	20.3%	208,000	4.6%	395,000	8.8%	315,000	7.0%
Couples no children*	4,814,000	4,375,000	90.9%	440,000	9.1%	138,000	2.9%	197,000	4.1%	104,000	2.2%
Couples with children*	2,911,000	2,456,000	84.4%	455,000	15.6%	162,000	5.6%	221,000	7.6%	72,000	2.5%
Female lone-parent*	380,000	235,000	61.9%	145,000	38.1%	27,000	7.0%	71,000	18.7%	47,000	12.3%
Male lone- parent*	85,000	68,000	79.1%	18,000	20.9%	5,000	5.8%	11,000	12.6%	2,000	2.5%
Other types†	2,353,000	1,934,000	82.2%	418,000	17.8%	110,000	4.7%	213,000	9.0%	96,000	4.1%
Highest education level in the household											
Less than high school	1,119,000	901,000	80.5%	218,000	19.5%	46,000	4.1%	98,000	8.8%	73,000	6.6%
High school completed	1,889,000	1,511,000	80.0%	378,000	20.0%	88,000	4.7%	179,000	9.5%	111,000	5.9%
Some post-secondary, no certificate	600,000	451,000	75.2%	149,000	24.8%	30,000	5.0%	70,000	11.7%	49,000	8.1%
Post secondary, below bachelor	5,493,000	4,514,000	82.2%	979,000	17.8%	254,000	4.6%	457,000	8.3%	268,000	4.9%
Bachelor degree, or more	5,955,000	5,286,000	88.8%	669,000	11.2%	231,000	3.9%	303,000	5.1%	135,000	2.3%

		Food secure		Food insecure		Marginally insecure		Moderately insecure		Severely insecure	
	Total households	Number of households	Percentage of households	Number of households	Percentage of households	Number of households	Percentage of households	Number of households	Percentage of households	Number of households	Percentage of households
Main source of income											
Wages, salaries, self-employment	9,042,000	7,799,000	86.3%	1,243,000	13.7%	380,000	4.2%	584,000	6.5%	278,000	3.1%
Social assistance	355,000	131,000	36.9%	224,000	63.1%	18,000	5.2%	95,000	26.8%	110,000	31.1%
Employment Insurance	58,000	36,000	61.5%	22,000	38.5%	7,000	11.4%	7,000	12.6%	8,000	14.5%
COVID benefits††	627,000	366,000	58.4%	261,000	41.6%	53,000	8.4%	122,000	19.5%	86,000	13.7%
Seniors' public pension	1,955,000	1,672,000	85.5%	283,000	14.5%	83,000	4.3%	141,000	7.2%	58,000	3.0%
Private retirement pension	1,564,000	1,504,000	96.1%	60,000	3.9%	25,000	1.6%	24,000	1.6%	12,000	0.7%
Other sources¶	1,456,000	1,155,000	79.4%	300,000	20.6%	83,000	5.7%	134,000	9.2%	83,000	5.7%
Homeownership											
Renter	4,953,000	3,668,000	74.1%	1,285,000	25.9%	298,000	6.0%	577,000	11.6%	410,000	8.3%
Owner with mortgage	5,740,000	4,944,000	86.1%	795,000	13.9%	245,000	4.3%	381,000	6.6%	169,000	3.0%
Owner without mortgage	4,363,000	4,050,000	92.8%	312,000	7.2%	106,000	2.4%	150,000	3.4%	56,000	1.3%
Immigration status											
No individual in the household is an immigrant	10,299,000	8,726,000	84.7%	1,573,000	15.3%	413,000	4.0%	700,000	6.8%	461,000	4.5%
1 or more individuals in the household is an immigrant	4,757,000	3,937,000	82.8%	820,000	17.2%	236,000	5.0%	408,000	8.6%	175,000	3.7%

* Living alone or with relatives

† Including 2+ economic families in household. An economic family is defined as a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common law, adoption, or a foster relationship.

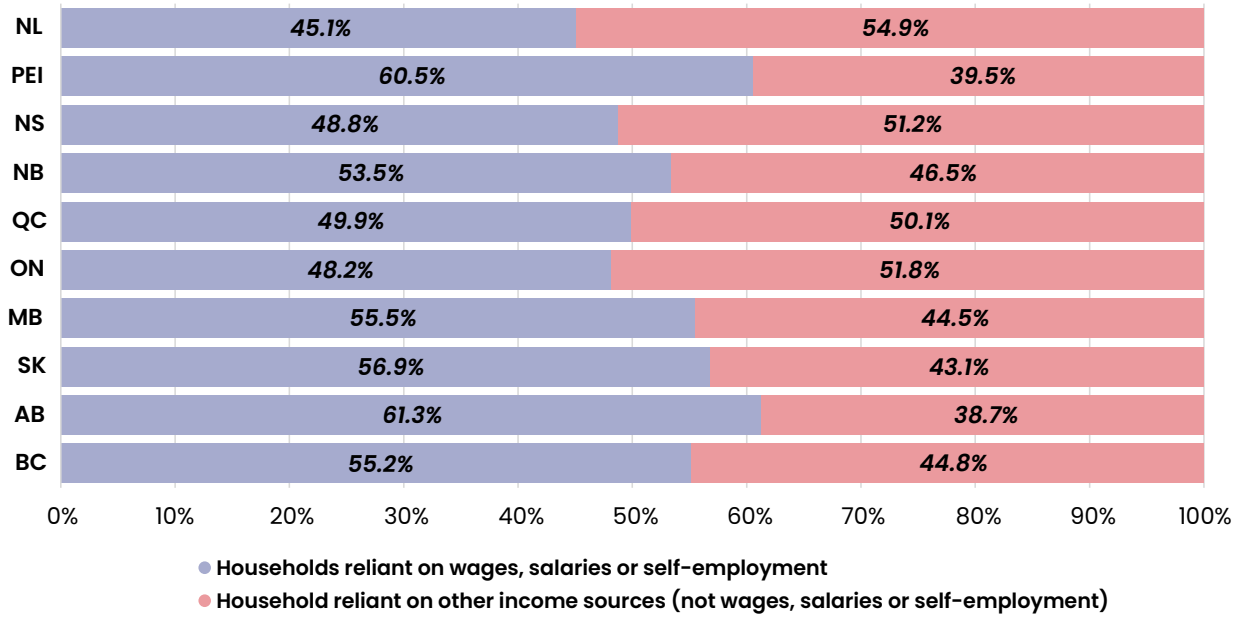
†† COVID benefits include: Canada Emergency Response Benefit, Canada Emergency Student Benefit, Canada Recovery Benefit, Canada Recovery Caregiving Benefit, Canada Recovery Sickness Benefit, one-time federal payment to disabled Canadians, or COVID-19 benefits administered by provincial governments.

¶ Other sources include alimony, investment incomes, Workers' Compensation, and other government transfers.

APPENDIX G

Proportion of food-insecure households who were reliant on wages, salaries or self-employment by province

Proportion of food-insecure households who were reliant on wages, salaries or self-employment by province, 2021



Data Source: Statistics Canada, Canadian Income Survey (CIS) 2020.

APPENDIX H

Number and percentage of individuals living in food-insecure households by racial/cultural identity and Indigenous status

		Food secure		Food insecure			Marginally insecure		Moderately insecure		Severely insecure	
	Total individuals	Number of individuals	Percent of individuals	Number of individuals	Percent of individuals	95% CI	Number of individuals	Percent of individuals	Number of individuals	Percent of individuals	Number of individuals	Percent of individuals
White / not a visible minority	25,992,000	22,553,000	86.8%	3,439,000	13.2%	12.6% - 13.8%	1,023,000	3.9%	1,538,000	5.9%	878,000	3.4%
Black	1,468,000	1,139,000	77.6%	329,000	22.4%	18.4% - 26.5%	76,000	5.2%	169,000	11.5%	84,000	5.7%
East / Southeast Asian	3,856,000	3,093,000	80.2%	763,000	19.8%	17.1% - 22.5%	253,000	6.6%	406,000	10.5%	104,000	2.7%
South Asian	2,574,000	2,169,000	84.3%	405,000	15.7%	12.9% - 18.5%	136,000	5.3%	214,000	8.3%	54,000	2.1%
Arab / West Asian	1,143,000	827,000	72.4%	316,000	27.6%	22.0% - 33.3%	76,000	6.7%	178,000	15.6%	61,000	5.4%
Indigenous	1,040,000	720,000	69.3%	320,000	30.7%	27.5% - 34.0%	67,000	6.4%	162,000	15.5%	91,000	8.8%
Other /multiple	1,027,000	759,000	73.9%	268,000	26.1%	21.1% - 31.1%	65,000	6.4%	144,000	14.1%	58,000	5.7%

APPENDIX I

Number and percentage of individuals living in food-insecure households by age group

		Food secure		Food insecure		Marginally insecure		Moderately insecure		Severely insecure	
Age group	Total individuals	Number of individuals	Percent of individuals	Number of individuals	Percent of individuals	Number of individuals	Percent of individuals	Number of individuals	Percent of individuals	Number of individuals	Percent of individuals
<6	2,306,000	1,873,000	81.2%	433,000	18.8%	136,000	5.9%	222,000	9.6%	75,000	3.2%
6 to 11	2,482,000	1,986,000	80.0%	496,000	20.0%	147,000	5.9%	252,000	10.2%	97,000	3.9%
12 to 17	2,307,000	1,848,000	80.1%	459,000	19.9%	144,000	6.2%	220,000	9.5%	96,000	4.2%
18 to 24	3,284,000	2,694,000	82.0%	590,000	18.0%	140,000	4.3%	309,000	9.4%	141,000	4.3%
25 to 34	5,162,000	4,267,000	82.7%	895,000	17.3%	231,000	4.5%	436,000	8.4%	228,000	4.4%
35 to 44	4,999,000	4,082,000	81.7%	917,000	18.3%	283,000	5.7%	438,000	8.8%	196,000	3.9%
45 to 54	4,708,000	3,935,000	83.6%	773,000	16.4%	211,000	4.5%	351,000	7.5%	211,000	4.5%
55 to 64	5,200,000	4,502,000	86.6%	697,000	13.4%	203,000	3.9%	311,000	6.0%	183,000	3.5%
65 to 74	3,967,000	3,552,000	89.5%	415,000	10.5%	136,000	3.4%	197,000	5.0%	83,000	2.1%
≥75	2,685,000	2,520,000	93.9%	164,000	6.1%	67,000	2.5%	75,000	2.8%	23,000	0.8%

APPENDIX J

Adjusted odds of food insecurity in relation to sociodemographic and economic characteristics

How to interpret

The following table shows the results of our multivariable analysis.

We ran two logistic regression models to estimate odds ratios of food insecurity for a particular characteristic, accounting for the variation in others. The first model shows how socio-demographic characteristics (province of residence, household type, highest level of education, racial/cultural identity and Indigenous status of main income earner, and presence of immigrant in household) relate to household food insecurity when all these characteristics are considered simultaneously.

The second model adds the economic characteristics of the household (main source of income, homeownership, and income), allowing us to identify the role of economic circumstances in food insecurity and to examine to what extent the association between the sociodemographic characteristics and food insecurity can be explained by household's economic circumstances.

Where the 95% confidence intervals include the value of 1.0, the difference between the group in question and the reference is not statistically significant.

For example, the adjusted odds ratio for household food insecurity for British Columbia vs Ontario is 0.93 with an 95% confidence interval of 0.81 to 1.06, after adjusting for socio-demographic characteristics only (model 1). This means that the odds of being food insecure in British Columbia doesn't differ from the odds in Ontario. This relationship stays the same after also taking economic characteristics into consideration (model 2).

	Model 1 (socio-demographic characteristics only)		Model 2 (socio-demographic + economic characteristics)	
	Adjusted odds ratio	95% Confidence Limits	Adjusted odds ratio	95% Confidence Limits
Province				
Ontario (reference group)	1.00		1.00	
Newfoundland & Labrador	1.20	1.01 - 1.42	1.19	1.00 - 1.43
Prince Edward Island	1.04	0.86 - 1.25	0.91	0.74 - 1.12
Nova Scotia	1.23	1.06 - 1.42	1.11	0.94 - 1.30
New Brunswick	1.35	1.19 - 1.54	1.28	1.11 - 1.48
Quebec	0.81	0.73 - 0.90	0.71	0.63 - 0.80
Manitoba	1.06	0.94 - 1.19	1.02	0.90 - 1.17
Saskatchewan	1.17	1.02 - 1.34	1.20	1.03 - 1.39
Alberta	1.39	1.21 - 1.59	1.55	1.34 - 1.80
British Columbia	0.93	0.81 - 1.06	0.93	0.80 - 1.08
Household type				
Couples with no children* (reference group)	1.00		1.00	
Unattached living alone*	2.39	2.15 - 2.66	1.26	1.12 - 1.42
Couples with children*	1.81	1.62 - 2.03	1.17	1.03 - 1.33
Female lone-parent*	5.17	4.29 - 6.23	2.17	1.79 - 2.63
Male lone-parent*	2.41	1.73 - 3.35	1.19	0.84 - 1.67
Other types†	1.98	1.73 - 2.27	1.40	1.21 - 1.62
Highest education level in the household				
Bachelor degree or more (reference group)	1.00		1.00	
Less than high school	1.86	1.60 - 2.16	1.18	1.00 - 1.39
High school completed	1.94	1.71 - 2.20	1.30	1.12 - 1.49
Some post-secondary, no certificate	2.41	1.98 - 2.94	1.41	1.13 - 1.76
Post-secondary, below bachelor	1.83	1.64 - 2.04	1.44	1.29 - 1.62
Racial/cultural identity and Indigenous status of main income earner				
White (reference group)	1.00		1.00	
Black	1.69	1.30 - 2.19	1.20	0.90 - 1.61
East / Southeast Asian	1.64	1.37 - 1.98	1.20	0.99 - 1.46
South Asian vs White	1.55	1.23 - 1.96	1.07	0.84 - 1.36
Arab/West Asian	2.31	1.73 - 3.07	1.18	0.87 - 1.60
Indigenous	2.32	1.96 - 2.74	1.81	1.52 - 2.16
Other / multiple	2.40	1.80 - 3.21	1.66	1.24 - 2.23
Immigration				
No immigrant in household (reference group)	1.00		1.00	
Immigrant in household	1.03	0.91 - 1.15	1.08	0.95 - 1.22
Homeownership				
Owner with mortgage (reference group)			1.00	
Owner without mortgage			0.48	0.43 - 0.55
Renter			1.24	1.11 - 1.39
Main source of income				
Wages, salaries, self-employment (reference group)			1.00	
Social assistance			3.67	2.81 - 4.79
Employment Insurance			2.12	1.39 - 3.22
COVID benefits			2.03	1.66 - 2.48
Seniors' public pension			0.67	0.58 - 0.78
Private retirement			0.33	0.27 - 0.41
Other sources			1.00	0.86 - 1.16
Household income				
After-tax household income, adjusted for household size ($1000 increment)			0.98	0.97 - 0.98

* living alone or with relatives, † including 2+ economic families in household

APPENDIX K

Number and proportion of children under 18 who lived in food-insecure households by province

		Food secure		Food insecure		
	Total number of children under 18	Number of children under 18	Percentage of children under 18	Number of children under 18	Percentage of children under 18	95% CI
NL	84,000	62,000	73.6%	22,000	26.4%	20.3% - 32.5%
PEI	30,000	22,000	74.6%	8,000	25.4%	18% - 32.8%
NS	163,000	121,000	74.2%	42,000	25.8%	21.4% - 30.1%
NB	134,000	101,000	75.8%	32,000	24.2%	19.7% - 28.8%
QC	1,589,000	1,340,000	84.3%	249,000	15.7%	13.3% - 18%
ON	2,740,000	2,174,000	79.4%	565,000	20.6%	18.4% - 22.8%
MB	287,000	227,000	79.1%	60,000	20.9%	18.3% - 23.6%
SK	252,000	195,000	77.5%	57,000	22.5%	19.1% - 26%
AB	958,000	750,000	78.3%	208,000	21.7%	18% - 25.5%
BC	859,000	714,000	83.1%	145,000	16.9%	13.7% - 20%

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