



HOUSEHOLD FOOD INSECURITY IN CANADA

2011

PROOF

Research to identify policy options
to reduce food insecurity



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PROOF is an international, interdisciplinary team of researchers committed to a program of research to identify effective policy interventions to address household food insecurity.

Website: <http://nutritionalsciences.lamp.utoronto.ca>



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Executive Summary

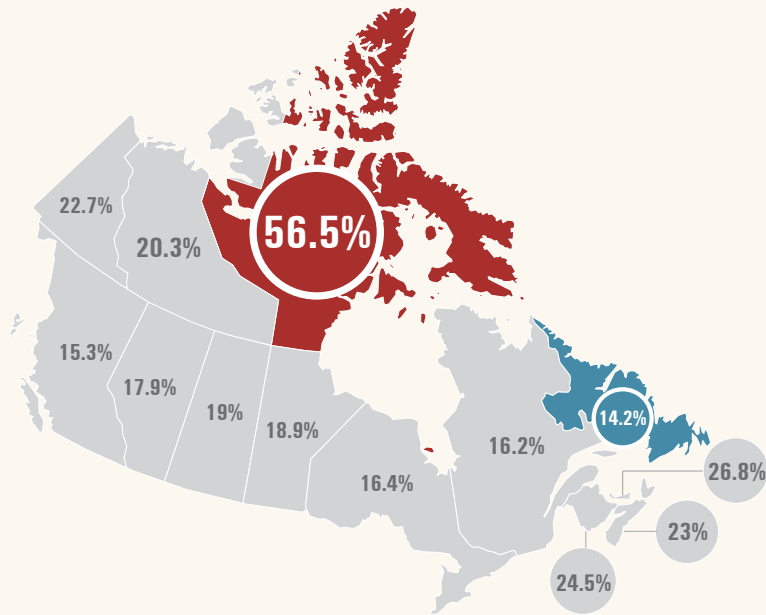
Household food insecurity, inadequate or insecure access to food because of financial constraints, is a significant social and public health problem in Canada. In 2011, 1.6 million Canadian households, or slightly more than 12%, experienced some level of food insecurity. This amounts to nearly one in eight households, and 3.9 million individuals in Canada, including 1.1 million children. There were 450,000 more Canadians living in households affected by food insecurity in 2011 than in 2008.

Food insecurity has only been measured on a consistent basis since 2005, and not all provinces have participated in the monitoring of food insecurity each year since then. Nevertheless, the available data suggest that in most parts of Canada, food insecurity in 2011 remained at or above the levels experienced in prior years. Food insecurity was most prevalent in Canada's North (especially Nunavut) and the Maritimes in 2011. The rates of food insecurity in Nova Scotia, New Brunswick, Quebec, Saskatchewan, and Alberta were the highest rates observed yet in these provinces. These provincial results stand in stark contrast to the trend observed in Newfoundland and Labrador. There, food insecurity has declined steadily in recent years, falling from 15.7% in 2007 to 10.6% in 2011. No other province or territory has shown a sustained drop in food insecurity rates.

Households with children under the age of 18 were more likely to be food insecure than households without children (16% versus 11%). Food insecure households include over 1.1 million children, or 17% of all children under the age of 18. This means that household food insecurity affected one in every six children in Canada in 2011. Nunavut, Prince Edward Island and New Brunswick had the highest prevalence of children living in food insecure households at 57%, 27% and 25% respectively.

Proportion of children who lived in food insecure households

Data Source: Statistics Canada, Canadian Community Health Survey (CCHS), 2011.

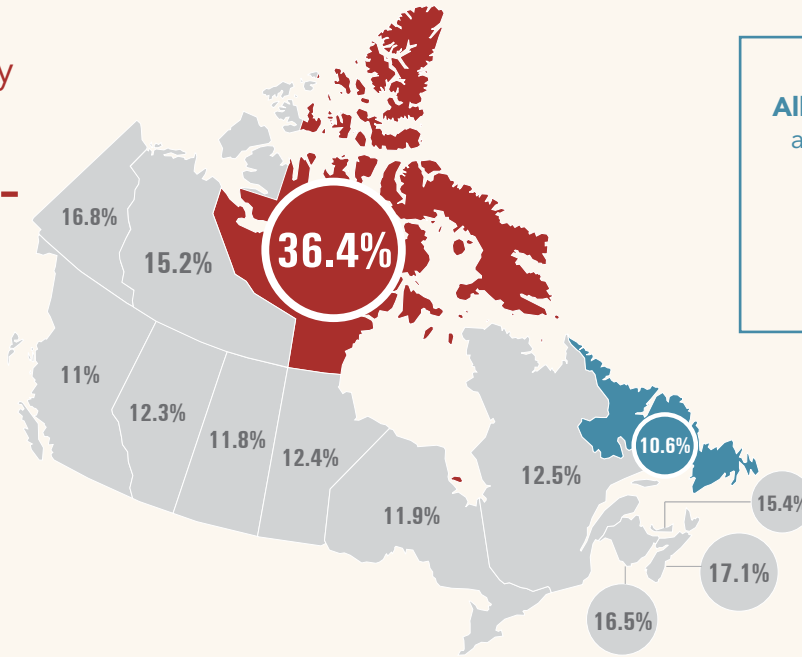


Two-thirds of households whose major source of income was social assistance were food insecure, as were 37% of those reliant on Employment Insurance or Workers' Compensation. Other household characteristics associated with a higher likelihood of food insecurity included being a female lone parent (35% were food insecure), having an income below the Low Income Measure (33%), being Aboriginal (27%), and renting rather than owning one's home (25%).

Food insecurity indicates deprivation in terms of a basic human need: access to nutritious food in sufficient quantities and of sufficient quality to maintain good health. The 3.9 million Canadians affected in 2011 are vulnerable to the physical and emotional hardships that characterize the experience of food insecurity and the associated compromises to health and well-being. Although there has been rigorous measurement and monitoring of household food insecurity in Canada since 2005, the problem has not abated. In fact, with the exception of Newfoundland and Labrador, it has grown or persisted in every province and territory.

The increased prevalence nationally, the alarming rates in the North and the Maritimes, and the sheer volume of affected households in our largest provinces suggest that reducing the prevalence of food insecurity requires attention and action by the federal, provincial and territorial governments. The data in this report provide an impetus for discussion that is critical to the development of programs and policies by all sectors aimed at tackling food insecurity in Canada.

Household food insecurity by province & territory



Ontario, Quebec, Alberta & British Columbia accounted for the largest share of food insecure households in Canada:

85% OF THE FOOD INSECURE POPULATION

Data Source: Statistics Canada, Canadian Community Health Survey (CCHS), 2011.

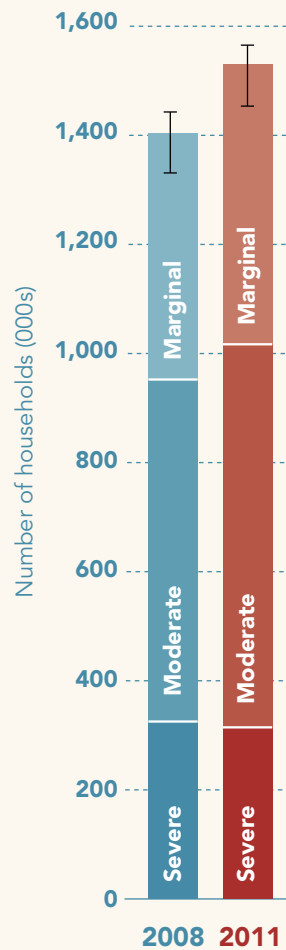
1.6 million Canadian households experienced food insecurity

This amounts to nearly **one in eight** households



3.9 million individuals, including **1.1 million children**

Household food insecurity



Marginal food insecurity

Worry about running out of food and/or limit food selection because of lack of money for food.

Moderate food insecurity

Compromise in quality and/or quantity of food due to a lack of money for food.

Severe food insecurity

Miss meals, reduce food intake and at the most extreme go day(s) without food.

Data Source: Statistics Canada, CCHS, 2008 and 2011.

Introduction

In 2011, the Household Food Security Survey Module was administered in all provinces and territories as a component of Statistics Canada's annual Canadian Community Health Survey (CCHS). Examining the results of this survey provides an opportunity to deepen our understanding of the prevalence, distribution and relative severity of household food insecurity across the country. The Annual Report on Household Food Insecurity is designed to provide a tool, using Statistics Canada data, to monitor trends and identify priorities for interventions to address this major public health issue. It builds on the extensive work of the Office of Nutrition Policy and Promotion at Health Canadaⁱ in monitoring household food insecurity in Canada.

The report has been prepared by PROOF, a Canadian Institutes of Health Research (CIHR)-funded research program initiated to identify effective policy interventions to address household food insecurity. It is the first in a series of annual reports on food insecurity in Canada. The 2012 annual report will be released in the fall of 2013.

What is food insecurity?

According to the Food and Agriculture Organization (FAO) of the United Nations, food security exists when *“all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”*ⁱⁱ. This definition was adopted by Canada at the World Food Summit, but the measurement and monitoring of food security in the country focuses on a households' experience of food insecurity or the inadequate or insecure access to adequate food due to financial constraints. The experience of food insecurity can range from concerns about running out of food before there is more money to buy more, to the inability to afford a balanced diet, to going hungry, missing meals, and in extreme cases, not eating for a whole day because of a lack of food and money for food.

Food insecurity is a serious public health problem because individuals' health and well-being is tightly linked to their household food security. Recent research in Canada has shown that the experience of hunger leaves an indelible mark on children's physical and mental health, manifesting in greater likelihood of such conditions as depression and asthma in adolescence and early adulthoodⁱⁱⁱ. Adults in food insecure households have poorer physical and mental health and higher rates of numerous chronic conditions, including depression, diabetes, and heart disease^{iv}. Once chronic diseases are established, their management is also compromised in the context of food insecurity^v.

How is food insecurity measured in Canada?

Data on food insecurity are collected through the Canadian Community Health Survey (CCHS), a cross-sectional survey administered by Statistics Canada that collects health related information from about 60,000 Canadians per year. The sample is designed to be representative of the ten provinces and three territories, but it excludes individuals who are full-time members of the Canadian Forces and those living on First Nations reserves or Crown Lands or in prisons or care facilities. While nearly half of all First Nations people in Canada lived on reserves in 2011^{vi}, this report includes no data on their food security^{vii}. The report also includes no data on food insecurity among homeless populations in Canada, because CCHS is limited to Canadians with domiciles^{viii}. Although on-reserve First Nations people and homeless people comprise relatively small proportions of the total population in Canada, their high levels of vulnerability to food insecurity must mean that the true prevalence of food insecurity in Canada is to some extent underestimated because of their omission.

Since 2004, the Household Food Security Survey Module has been included in the CCHS to monitor households' experiences of food insecurity over the previous 12 months^{ix}. (See *Appendix A* for the full Household Food Security Survey Module.) This survey module consists of 18 questions asking the respondent whether he/she or other household members experienced the conditions described, which range in severity from experiences of anxiety that food will run out before household

Responses to items in the Household Food Security Module, Canadian Community Health Survey, Canada 2011

Adult food security scale:	All Households		Households with children		Households without children	
	Number (000s)	%	Number (000s)	%	Number (000s)	%
Worried food would run out	1,212.2	9.3%	465.8	12.1%	746.4	8.1%
No food, and no money for more	893.5	6.8%	330.7	8.6%	562.8	6.1%
Could not afford balanced meals	997.5	7.6%	319.0	8.3%	678.6	7.4%
Adult ever skip meals because there wasn't enough money for food	533.1	4.1%	178.7	4.7%	354.4	3.9%
Adult cut or skipped meals almost every or some months	395.1	3.0%	123.8	3.2%	271.3	3.0%
Ate less than felt should	545.1	4.2%	182.0	4.7%	363.1	4.0%
Was hungry but could not afford to eat	321.3	2.5%	98.3	2.6%	223.1	2.4%
Lost weight, no money to buy food	222.9	1.7%	60.6	1.6%	162.3	1.8%
Adults did not eat for a whole day	142.2	1.1%	36.9	1.0%	105.3	1.2%
Adults did not eat for a whole day almost every or some months	111.1	0.9%	29.4	0.8%	81.7	0.9%
Child food security scale:						
Relied on a few kinds of low cost foods to feed children	325.5	2.4%	325.5	8.5%	n/a	n/a
Couldn't afford to feed children a balanced meal	217.8	1.6%	217.8	5.7%	n/a	n/a
Children were not eating enough because couldn't afford food	95.1	0.7%	95.1	2.5%	n/a	n/a
Adults cut the size of children's meals because they couldn't afford food	25.9	0.2%	25.9	0.7%	n/a	n/a
Child ever skip meals because there wasn't enough money for food	16.9	0.1%	16.9	0.4%	n/a	n/a
Child skipped meals almost every, or some months	15.0	0.1%	15.0	0.4%	n/a	n/a
Children were hungry but could afford to buy more food	26.3	0.2%	26.3	0.7%	n/a	n/a
Children did not eat for a whole day	5.7	0.04%	5.7	0.2%	n/a	n/a

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

Based on the number of positive responses to the questions posed, for this report and for subsequent issues, households are classified as either food secure or marginally, moderately, or severely food insecure. (See *Appendix B* for a full description.) Food secure households are those who gave no indication of any income-related problem of food access. Those who are *marginally food insecure* have reported some concern or problem of food access over the past 12 months^x. Households classified as *moderately food insecure* have reported compromises in the quality and/or quantity of food consumed among adults and/or children. Those classed as *severely food insecure* have reported more extensive compromises, including reduced food intake among adults and/or children because of a lack of money for food.

In this report, we present estimates of the number of adults and children living in food insecure households in Canada, based on population-weighted totals from CCHS 2011 and CCHS 2008. Our estimates are much larger than the earlier estimates of the number of people living in food-insecure households in 2007-08 provided by Health Canada. In part, this reflects the increased prevalence of food insecurity in Canada between 2007-08 and 2011, but there are also two important differences in our methods of calculation. We have considered all members of households classified as food insecure, whereas Health Canada has only reported on food insecurity among those 12 years of age and older. In addition, we have included marginally food insecure households in our calculations, whereas Health Canada's earlier reports only counted the people living in moderately and severely food insecure households. Thus the prevalence estimates here encompass a broader spectrum of the population affected by food insecurity.

In the United States, food insecurity is monitored using the same questionnaire used in Canada, but the terminology and classification scheme differ. This means that the results in this report are not directly comparable to reports of food insecurity in the United States. A comparison of food insecurity rates in Canada and the United States in 2011, applying United States Department of Agriculture's coding of the survey module, is presented in *Appendix C*.

The food security survey module is not always part of the common content of CCHS, and during cycles of CCHS where it has been optional, some provinces and territories have opted out of participation. However, this report is based on the 2011 CCHS which included the food security questionnaire as part of the core content; therefore, participation from all provinces and territories was assured. Starting in 2015, the survey module will be considered common content, collected for two years, every four years.

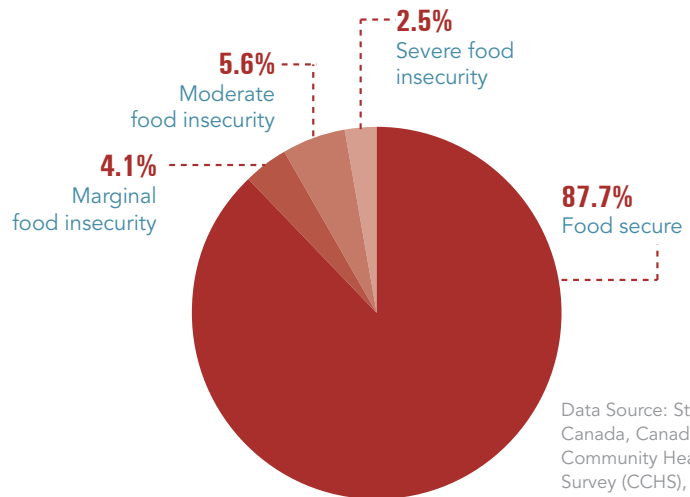
Prevalence of Household Food Insecurity – Canada 2011

In 2011, 12.3% of Canadian households^{xi}, representing nearly 1.6 million households or approximately 2.7 million adults and over 1.1 million children under the age of 18, experienced some level of food insecurity over the previous 12 months. This means that 17% of children under 18, or about one in six, lived in households that experienced food insecurity during 2011.

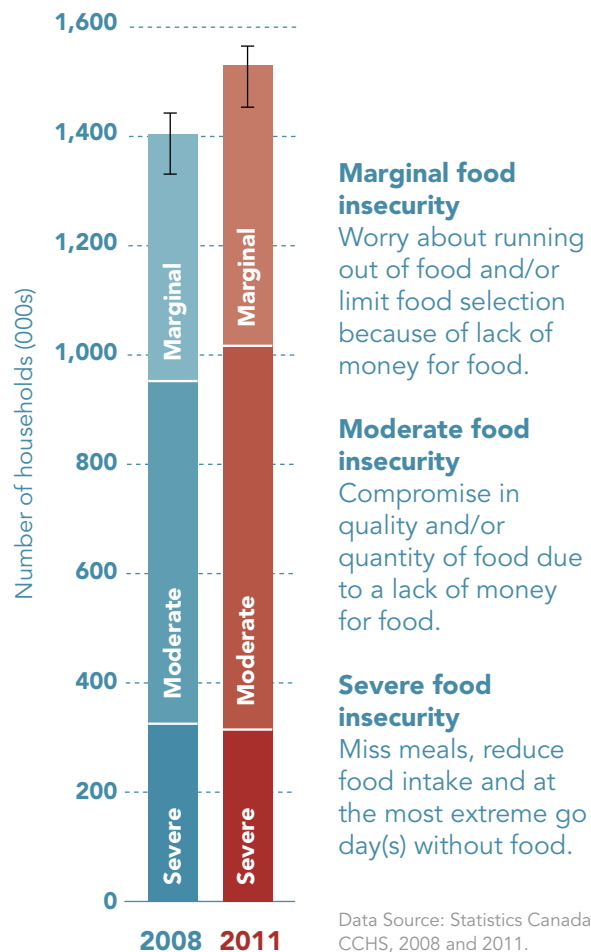
The levels of deprivation documented were substantial, with 5.6% of households (i.e., 730,000 households) classified as *moderately food insecure*, indicating compromises in the quality and possibly quantity of food consumed over the past 12 months, and 2.5% (i.e., 330,000 households) *severely food insecure*, reporting clear indications of food deprivation among household members.

Household food insecurity has risen significantly since 2008, the last year for which there are complete data for every province and territory. In 2008, 11.3% of households were food insecure, and this amounted to about 3.4 million Canadians. In 2011, an additional 450,000 Canadians were food insecure.

Household food insecurity, Canada 2011



Household food insecurity

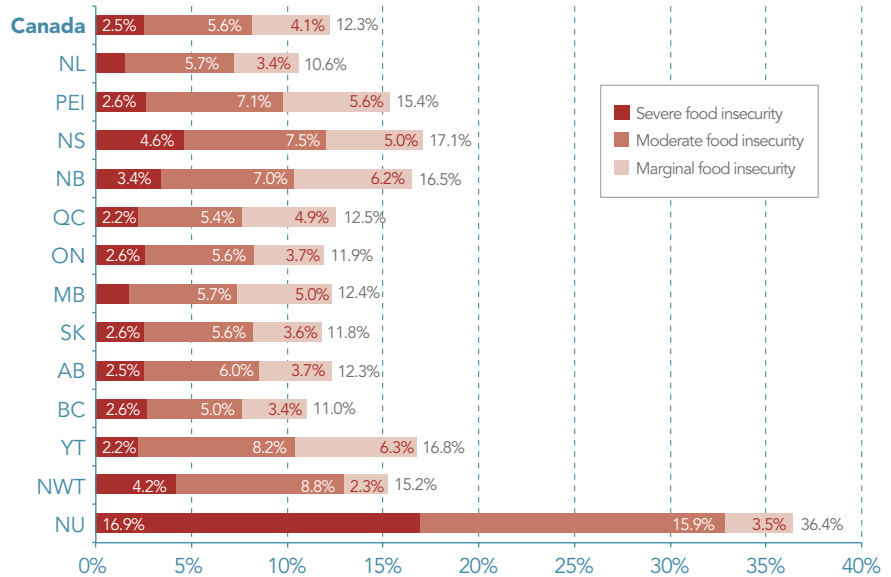


Food insecurity, by province or territory

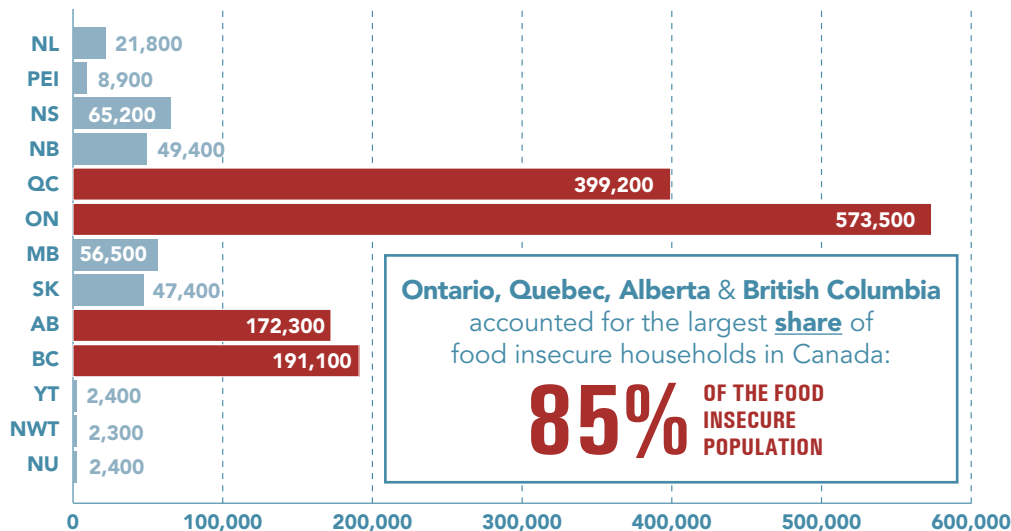
The highest prevalence of food insecurity was in Nunavut where 36% of households were food insecure. Food insecurity rates also exceeded 15% in the Maritimes, Yukon, and the Northwest Territories. The province with the lowest prevalence of food insecurity was Newfoundland and Labrador.

Household food insecurity in Canada by province & territory

Data Source: Statistics Canada, Canadian Community Health Survey (CCHS), 2011.



Prevalence tells us the proportion of the population or subpopulation experiencing food insecurity. To understand the problem of food insecurity across Canada, it is also instructive to examine the distribution of food insecure households across the country, as this tells us where the greatest numbers of food insecure households are located. Almost 85% of the food insecure households in Canada, over 1.3 million, are located in Ontario, Quebec, Alberta, and British Columbia.



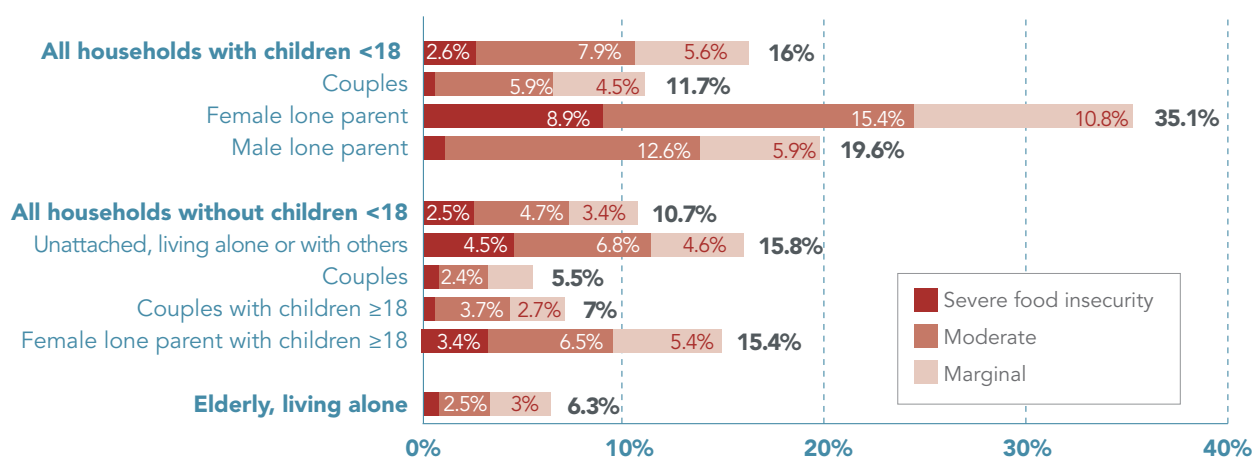
Number of food insecure households by province & territory

Data Source: Statistics Canada, Canadian Community Health Survey (CCHS), 2011.

Food insecurity by household characteristics

Just as food insecurity rates vary across the provinces and territories, the risks also vary according to household characteristics. (See *Appendix D* for a detailed breakdown of food insecurity in relation to household characteristics.) Food insecurity was more prevalent among households with children under the age of 18. Most vulnerable were lone parent families headed by women. Among this group, the prevalence of food insecurity was 35%. Among households without children, food insecurity rates exceeded 15% among unattached individuals and female lone parents living with adult children. In contrast, the prevalence of food insecurity among couples without children and elderly individuals living alone was approximately 6%.

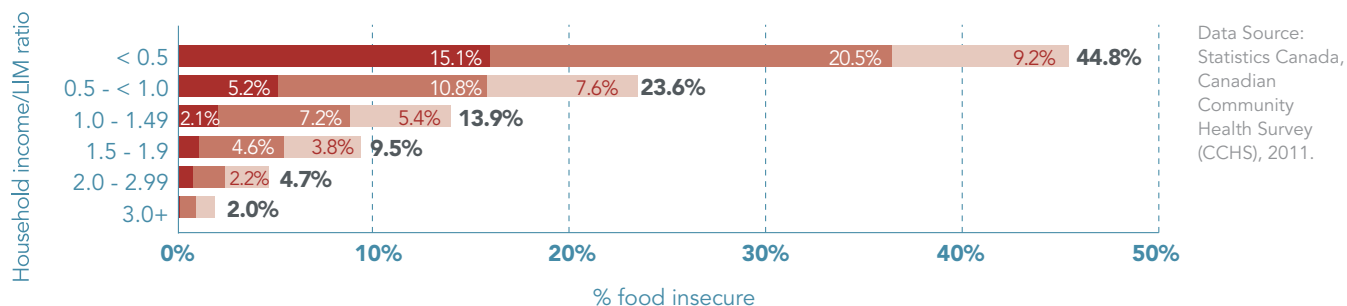
Food insecurity by household composition



Data Source: Statistics Canada, Canadian Community Health Survey (CCHS), 2011.

Because food insecurity often results from a household's inability to access food for financial reasons, it is not surprising that income is closely related to food insecurity. While there is no official measure of poverty in Canada, Statistics Canada's Low Income Measure (LIM) is commonly used in Canada and for making international comparisons. The LIM is 50% of median household income, adjusted for household size - to take into account that a household's needs increase with additional members^{xii}. One-third of households with incomes below the LIM were food insecure. The lower household income is in relation to the LIM, the greater the prevalence of food insecurity.

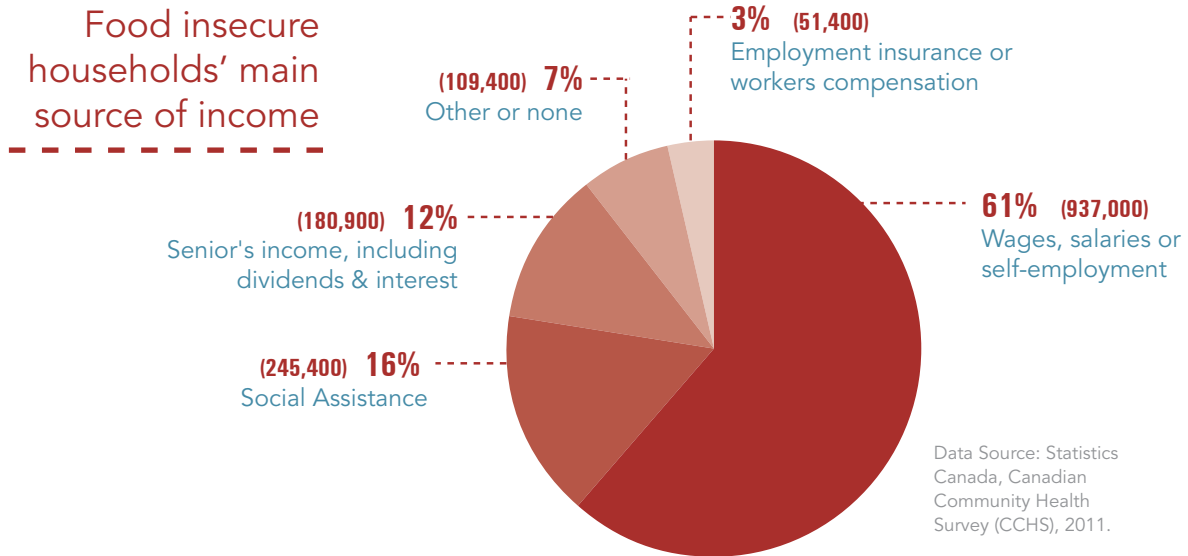
Relationship between income and household food insecurity



Data Source: Statistics Canada, Canadian Community Health Survey (CCHS), 2011.

The source of a household's income is also strongly related to food insecurity. Food insecurity affected 65% of households reliant on social assistance (i.e., welfare and disability support programs), and 37% of households reliant on Employment Insurance or Workers Compensation. Households whose main source of income was either pensions or dividends and interest had the lowest rate of food insecurity (7%).^{xiii}

Although the prevalence of food insecurity among households whose main source of income was wages and salaries was under 11% in 2011, this group made up the majority (61%) of food insecure households in Canada.



Some other household characteristics were associated with increased prevalence of food insecurity:

- One-quarter of households renting their home experienced food insecurity, versus less than 7% of homeowners.
- Households where the respondent identified as Aboriginal had a rate of food insecurity more than double that of all Canadian households (27%).
- Households located in rural areas experienced a rate of food insecurity that was slightly lower than that of households in population centres (10% versus almost 13%).

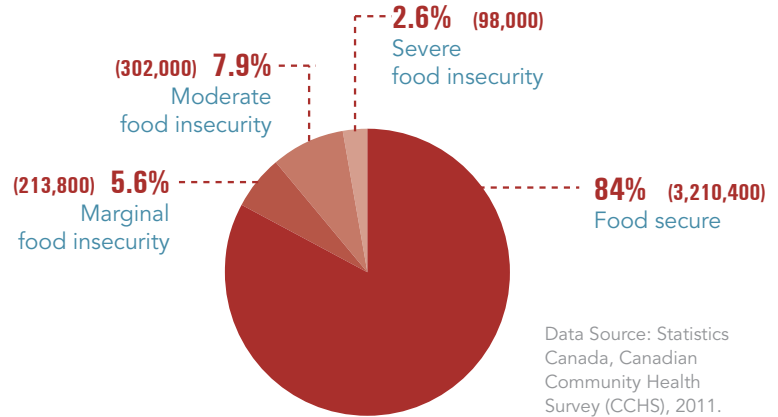
► Children in food insecure households

Food insecurity is more prevalent among households with children under the age of 18 than households without children.

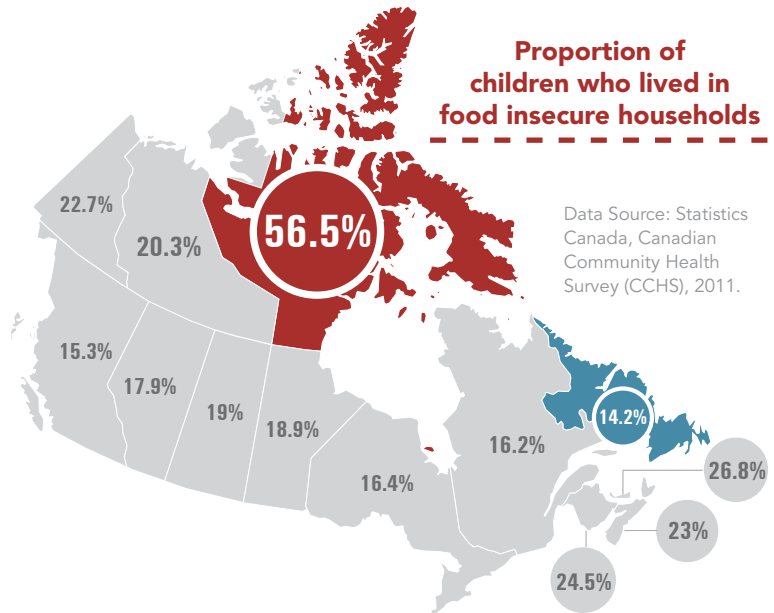
How many children are affected? In 2011, 17% of children in Canada (an estimated 1.1 million children) lived in households affected by some level of food insecurity. Nearly two-thirds of these (nearly three-quarters of a million children) were in moderately or severely food insecure households.

The prevalence of food insecurity for households with children differs dramatically depending on the province or territory of residence. Nunavut, Prince Edward Island and New Brunswick had the highest proportions of children living in food insecure households at 57%, 27% and 25% respectively. The lowest proportion of children in food insecure households was in Newfoundland and Labrador (14%) and British Columbia (15%), but even in these provinces, 1 in 7 children were living in a household that had reported some level of food insecurity in 2011.

Households with children by food security status



Proportion of children who lived in food insecure households



Severe food insecurity

In 2011, 20.7% of food insecure households in Canada were severely food insecure. This group, comprising 330,000 households, merits closer examination because severe food insecurity denotes such an extreme level of deprivation. Overall, like food insecurity, the prevalence of severe food insecurity was much higher in Nunavut (16.9%) than elsewhere in Canada. Additionally, the rate of severe food insecurity was above the national average in Nova Scotia (4.6%), Northwest Territories (4.2%) and New Brunswick (3.4%). Severe food insecurity was lowest in Newfoundland and Labrador (1.5%) followed by Manitoba, Quebec and Yukon (1.7, 2.2 and 2.2%, respectively.)

Of particular concern is the prevalence of severe food insecurity among households with children in some parts of the country. More than 1 in 5 households with children (22%) in Nunavut were severely food insecure. Although rates were lower elsewhere, 6% of households with children in Nova Scotia were severely food insecure.

An examination of the household characteristics associated with severe food insecurity highlights the particular vulnerability of people on social assistance. In 2011, 27% of households who reported their main source of income as social assistance were severely food insecure. See *Appendix D* for a detailed description of the characteristics of severely-food insecure households.

What does it mean to be a severely food insecure household in Canada?

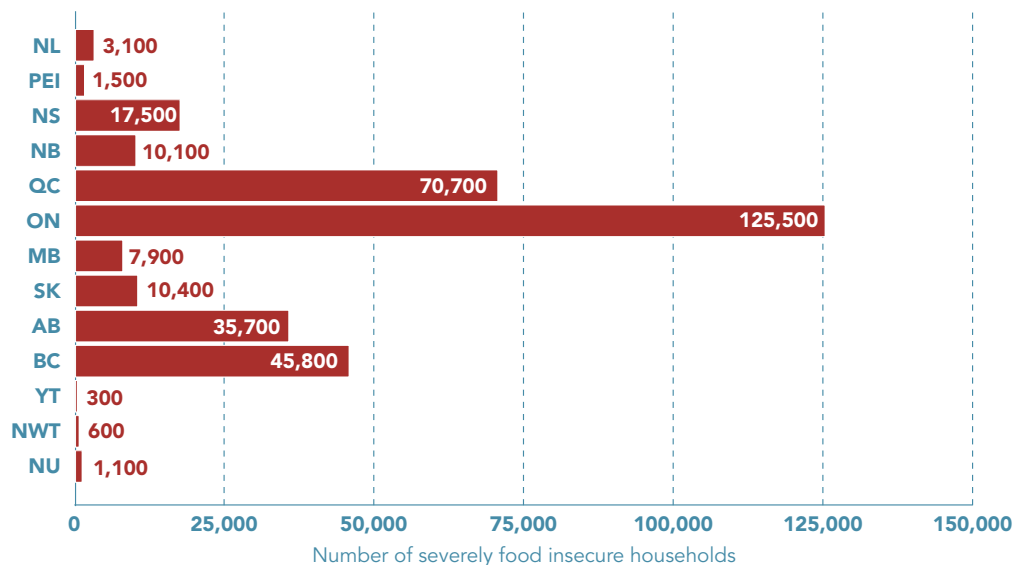
- 97% reported being worried that their food would run out before they got money to buy more;
- 93% reported that the food bought for the household did not last and there was no money to buy more.
- 94% reported that they could not afford to eat balanced meals.
- 96% reported that they had cut the size of meals, or skipped meals entirely because there wasn't enough money to purchase food; 86% reported that this had occurred several times.
- 96% felt that they had eaten less than they should because there wasn't enough money to buy food.
- 71% reported being hungry but not eating because they couldn't afford enough food.
- 56% of respondents had lost weight because they didn't have enough money for food.
- 37% reported that an adult did not eat for an entire day because there wasn't enough money for food; 30% reported that this happened several times.

Among households with children:

- 85% relied on a few kinds of low-cost foods to feed children.
- 75% could not afford to feed their children balanced meals
- In nearly half (46%) of the households, children were not eating enough because there was not enough money for food.
- 18% cut the size of children's meals, and in 11% of households children missed meals.
- 21% of children were hungry, and 2% went for a whole day without food.

Number of severely food insecure households by province & territory

Data Source: Statistics Canada, Canadian Community Health Survey (CCHS), 2011.



Food Insecurity since 2005

Food insecurity has only been monitored on a consistent basis since 2005^{xiv}, and not all provinces and territories have participated in the monitoring of food insecurity each year since then. Nevertheless, the available data suggest that in most parts of Canada, food insecurity in 2011 remained at or above the levels experienced in prior years. The following table presents the prevalence of total (marginal, moderate and severe) food insecurity in the provinces and territories from 2005 to 2011, with blanks indicating years that provinces and territories opted out of participation. The 95% confidence intervals for these estimates and the estimated prevalence of moderate and severe food insecurity in the provinces and territories from 2005 to 2011 are presented in *Appendix E*.

Household food insecurity – Canada, 2005-2011						
	2005	2007	2008	2009	2010	2011
Newfoundland & Labrador		15.7%	14.3%	11.8%	11.5%	10.6%
Prince Edward Island	12.9%	14.9%	15.3%			15.4%
Nova Scotia	16.1%	14.4%	13.5%	15.9%	14.9%	17.1%
New Brunswick		13.8%	15.1%			16.5%
Quebec	11.3%	10.9%	9.4%	11.3%	9.7%	12.5%
Ontario	11.6%	11.8%	12.1%	12.5%	11.3%	11.9%
Manitoba		12.4%	12.9%	10.8%	10.0%	12.4%
Saskatchewan		9.5%	9.7%	8.2%	9.2%	11.8%
Alberta	10.4%	9.1%	10.0%	10.8%	10.9%	12.3%
British Columbia	11.0%	10.8%	11.5%	11.9%	11.1%	11.0%
Yukon		17.8%	13.0%	13.9%	12.6%	16.7%
Northwest Territories	14.2%	16.5%	17.8%	9.8%	12.0%	15.2%
Nunavut	38.0%	35.4%	34.6%	31.0%	31.0%	36.4%

Data Source: Canadian Community Health Survey (CCHS), 2005, 2007, 2008, 2009, 2010, and 2011.

The rates of food insecurity in Nova Scotia, New Brunswick, Quebec, Saskatchewan, and Alberta in 2011 were the highest rates observed yet in these provinces. The growth of food insecurity in Quebec from 2010 to 2011 is statistically significant.

Of particular concern as well are the persistently high rates of food insecurity in Nunavut, and the severity of food insecurity documented in this territory. Food insecurity went from 31.0% to 36.4% in Nunavut from 2010 to 2011. Moderate and severe food insecurity went from 25.9% in 2010 to 32.9% in 2011.

The only exception in this bleak picture is Newfoundland and Labrador, where food insecurity has been steadily declining. It fell from 15.7% in 2007 to 10.6% in 2011. No other province or territory has shown a sustained drop in food insecurity rates, and in 2011, Newfoundland and Labrador had the lowest prevalence of food insecurity in the country.

Prevalence of household food insecurity, 2005-2011



Data Source: Canadian Community Health Survey (CCHS), 2005, 2007, 2008, 2009, 2010, and 2011.

Conclusions

Food insecurity indicates deprivation in terms of a basic human need: access to nutritious food in sufficient quantities and of sufficient quality to maintain good health. Although there has been rigorous measurement and monitoring of household food insecurity in Canada since 2005, the problem has not abated. In fact, with the exception of Newfoundland and Labrador, it has grown or persisted in every province and territory. The 3.9 million Canadians affected in 2011 are vulnerable to the physical and emotional hardships that characterize the experience of food insecurity and the associated compromises to health and well-being.

Food insecurity is a serious social and public health problem in our country. The increased prevalence nationally, the alarming rates in the North and the Maritimes, and the sheer volume of affected households in our largest provinces suggest that reducing the prevalence of food insecurity requires attention and action by the federal, provincial and territorial governments. The data in this report provide an impetus for discussion that is critical to the development of programs and policies by all sectors aimed at tackling food insecurity in Canada.

Appendix A - CCHS Household Food Security Survey Module^{ix}

The following questions are about the food situation for your household in the past 12 months.

Q1. Which of the following statements best describes the food eaten in your household in the past 12 months, that is since [current month] of last year?

1. You and other household members always had enough of the kinds of foods you wanted to eat.
 2. You and other household members had enough to eat, but not always the kinds of food you wanted.
 3. Sometimes you and other household members did not have enough to eat.
 4. Often you and other household members didn't have enough to eat.
- Don't know / refuse to answer (Go to end of module)

Question Q1 is not used directly in determining household food security status.

STAGE 1 Questions 2 - 6 — 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.

Q2. 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 | 3. Never true |
| 2. Sometimes true | - Don't know / refuse to answer |

Q3. 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 | 3. Never true |
| 2. Sometimes true | - Don't know / refuse to answer |

Q4. 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 | 3. Never true |
| 2. Sometimes true | - Don't know / refuse to answer |

IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK Q5 AND Q6; 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.

Q5. 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 | 3. Never true |
| 2. Sometimes true | - Don't know / refuse to answer |

Q6. 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 | 3. Never true |
| 2. Sometimes true | - Don't know / refuse to answer |

FIRST LEVEL SCREEN (screener for Stage 2): If AFFIRMATIVE RESPONSE to ANY ONE of Q2-Q6 (i.e., “often true” or “sometimes true”) OR response [3] or [4] to Q1, then continue to STAGE 2; otherwise, skip to end.

STAGE 2 Questions 7 - 11 — ask households passing the First Level Screen

IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK Q7; OTHERWISE SKIP TO Q8

Q7. 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.

Q8. 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 Q9)
- Don't know / refuse to answer

Q8b. 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

Q9. 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 (Go to Q9)
- Don't know / refuse to answer

Q10. 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 (Go to Q9)
- Don't know / refuse to answer

Q11. In the past 12 months, did you (personally) lose weight because you didn't have enough money for food?

- 1. Yes
- 2. No (Go to Q9)
- Don't know / refuse to answer

SECOND LEVEL SCREEN (screener for Stage 3): If AFFIRMATIVE RESPONSE to ANY ONE of Q7-Q11, then continue to STAGE 3; otherwise, skip to end.

STAGE 3 Questions 12 - 16 — ask households passing the Second Level Screen

Q12. 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 Q13; OTHERWISE SKIP TO END)
- Don't know / refuse to answer

Q12b. How often did this happen?

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

IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK Q13-16; OTHERWISE SKIP TO END

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

Q13. 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

Q14. 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

Q14b. How often did this happen?

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

Q15. 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

Q16. 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 - Food security status, based on 18 item questionnaire

Food security status, based on 18 item questionnaire*			
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
Marginal food insecurity**	Some indication of worry or an income-related barrier to adequate, secure food access.	Affirmed no more than 1 item on either scale	
Moderate food insecurity	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 positive responses	2 to 4 positive responses
Severe food insecurity	Disrupted eating patterns and reduced food intake among adults and/or children	6 or more positive responses	5 or more positive responses

* Adapted from: Canadian Community Health Survey, cycle 2.2, Nutrition (2004): Income related Household Food Security in Canada.

** One item in either scale affirmed.

Appendix C - A comparison of food insecurity rates in Canada and the United States in 2011

In the United States, food insecurity is monitored using the same questionnaire used in Canada, but the terminology and classification scheme differs. This means that the results in this report are not directly comparable to reports of food insecurity in the United States. If we use the U.S. approach to measuring food insecurity here, the prevalence of household food insecurity in Canada is 6.4%.

Prevalence of Food Insecurity using USDA Measurement				
	Canada, 2011		US, 2011 ^{xv}	
	Households (000s)	%	Households (000s)	%
Total food insecure	831.8	6.4%	17,853	14.9%
Low food security	504.9	3.9%	11,014	9.2%
Very low food security	327.0	2.5%	6,839	5.7%

Appendix D - Prevalence of household food security and insecurity, by selected household characteristics

Prevalence of household food security and insecurity, by selected household characteristics											
Characteristic	Total households (000s) ¹	Food secure		Food insecure		Marginal food insecurity		Moderate food insecurity		Severe food insecurity	
		Number (000s)	%	Number (000s)	%	Number (000s)	%	Number (000s)	%	Number (000s)	%
All Households	12,994.1	11,401.7	87.8%	1,592.4	12.3%	528.8	4.1%	733.2	5.6%	330.4	2.5%
Household composition:											
With children under 18	3,824.1	3,210.4	84.0%	613.8	16.0%	213.8	5.6%	302.0	7.9%	98.0	2.6%
With children under 6	1,583.0	1,312.6	82.9%	270.4	17.1%	96.1	6.1%	140.1	8.9%	34.2	2.2%
Couple, with children	2,971.8	2,623.4	88.3%	348.3	11.7%	133.2	4.5%	176.6	5.9%	38.5	1.3%
Female lone parent	605.7	392.9	64.9%	212.8	35.1%	65.7	10.8%	93.2	15.4%	53.9	8.9%
Male lone parent	138.6	111.4	80.4%	27.2	19.6%	8.2	5.9%	17.4	12.6%	1.6	1.1%
Other ³	72.2	54.2	75.1%	18.0	24.9%	4.9	6.7%	10.1	13.9%	3.1	4.2%
With no children < 18	9,170.0	8,191.4	89.3%	978.7	10.7%	315.0	3.4%	431.2	4.7%	232.4	2.5%
Unattached, living alone or with others	4,047.2	3,407.6	84.2%	639.6	15.8%	184.1	4.6%	274.9	6.8%	180.6	4.5%
Couple, no children	3,595.0	3,398.3	94.5%	196.8	5.5%	80.6	2.2%	87.3	2.4%	28.9	0.8%
Couple, with children	985.6	916.9	93.0%	68.7	7.0%	27.0	2.7%	36.1	3.7%	5.5	0.6%
Female lone parent	364.0	308.0	84.6%	56.0	15.4%	19.8	5.4%	23.7	6.5%	12.4	3.4%
Male lone parent	102.5	90.6	88.5%	11.8	11.6%	2.4	2.3%	5.0	4.9%	4.4	4.3%
Other	56.7	52.2	92.0%	4.5	8.0%	1.1	1.9%	3.4	6.1%	0.0	0.0%
Elderly living alone	1,171.0	1,097.5	93.7%	73.5	6.3%	34.7	3.0%	29.5	2.5%	9.2	0.8%
Education:²											
Less than secondary	1,119.4	886.7	79.2%	232.7	20.8%	50.0	4.5%	119.2	10.6%	63.6	5.7%
Secondary school graduate, no post-secondary	1,499.8	1,255.1	83.7%	244.7	16.3%	80.2	5.3%	107.8	7.2%	56.7	3.8%
Some post-secondary, not completed	572.8	435.3	76.0%	137.5	24.0%	35.7	6.2%	58.0	10.1%	43.8	7.6%
Completed post-secondary, below Bachelor's degree	5,066.5	4,414.4	87.1%	652.1	12.9%	216.9	4.3%	311.7	6.2%	123.5	2.4%
Completed Bachelor's degree or higher	4,108.3	3,866.3	94.1%	242.0	5.9%	113.1	2.8%	100.3	2.4%	28.6	0.7%

Characteristic	Total households (000s) ¹	Food secure		Food insecure		Marginal food insecurity		Moderate food insecurity		Severe food insecurity	
		Number (000s)	%	Number (000s)	%	Number (000s)	%	Number (000s)	%	Number (000s)	%
Wages, salaries or self-employment	8,813.7	7,876.7	89.4%	937.0	10.6%	341.9	3.9%	439.6	5.0%	155.5	1.8%
Senior's income, including dividends & interest	2,580.6	2,399.7	93.0%	180.9	7.0%	71.0	2.7%	82.3	3.2%	27.6	1.1%
Employment insurance or workers compensation	139.2	87.9	63.1%	51.4	36.9%	17.0	12.2%	19.0	13.7%	15.3	11.0%
Social Assistance	379.0	133.5	35.2%	245.4	64.8%	31.3	8.3%	110.1	29.1%	104.0	27.4%
Other or none	380.2	270.8	71.2%	109.4	28.8%	40.3	10.6%	46.2	12.1%	23.0	6.0%
Housing Tenure:											
Dwelling owned by member of household	8,980.7	8,390.0	93.4%	590.7	6.6%	249.8	2.8%	258.9	2.9%	82.0	0.9%
Dwelling rented	3,985.5	2,988.7	75.0%	996.8	25.0%	276.4	6.9%	472.6	11.9%	247.8	6.2%
Aboriginal:³											
Yes	445.8	325.0	72.9%	120.8	27.1%	25.8	5.8%	59.7	13.4%	35.3	7.9%
No	9,882.4	8,750.4	88.5%	1,132.0	11.5%	372.6	3.8%	519.7	5.3%	239.7	2.4%
Urban/rural:											
Non-rural	10,709.6	9,350.1	87.3%	1,359.5	12.7%	439.4	4.1%	628.5	5.9%	291.6	2.7%
Rural	2,284.6	2,051.6	89.8%	232.9	10.2%	89.4	3.9%	104.7	4.6%	38.8	1.7%
Household income/LIM ratio:⁴											
< 0.5	741.3	409.2	55.2%	332.1	44.8%	68.0	9.2%	152.1	20.5%	112.0	15.1%
0.5 - < 1.0	2,275.7	1,739.3	76.4%	536.4	23.6%	172.5	7.6%	246.2	10.8%	117.6	5.2%
1.0 - 1.49	2,318.1	1,995.2	86.1%	322.9	13.9%	117.1	5.1%	157.9	6.8%	47.9	2.1%
1.5 - 1.9	2,165.5	1,959.9	90.5%	205.7	9.5%	82.8	3.8%	98.7	4.6%	24.1	1.1%
2.0 - 2.99	2,935.3	2,797.7	95.3%	137.6	4.7%	64.2	2.2%	52.3	1.8%	21.0	0.7%
3.0 +	2,521.9	2,471.3	98.0%	50.6	2.0%	22.7	0.9%	22.3	0.9%	5.6	0.2%

1 'Total households' excludes those households with missing values for food security.

2 Education refers to the highest level of education achieved among household members.

3 This refers to the status of the respondent.

4 The LIM is 50% of median household income, adjusted for household size. It excludes the territories because the Survey of Labour and Income Dynamics, the survey from which the LIM is derived, excludes the territories.

Source: Canadian Community Health Survey, 2011.

Appendix E - Provincial and territorial rates of household food insecurity, 2005-2011

Provincial and territorial rates of household food insecurity, 2005-2011									
Province/ Territory	2005 ¹			2007			2008		
	Moderate & severe food insecurity (%)	Total food insecure (%)	95% CI ²	Moderate & severe food insecurity (%)	Total food insecure (%)	95% CI ²	Moderate & severe food insecurity (%)	Total food insecure (%)	95% CI ²
Newfoundland and Labrador	n/a	n/a		10.0%	15.7%	13.7 - 17.8%	8.9%	14.3%	12.3 - 16.3%
Prince Edward Island	8.3%	12.9%	11.1 - 14.7%	10.1%	14.9%	12.7 - 17.1%	10.6%	15.3%	12.8 - 17.7%
Nova Scotia	10.8%	16.1%	14.8 - 17.4%	10.0%	14.4%	12.6 - 16.2%	8.6%	13.5%	11.8 - 15.2%
New Brunswick	n/a	n/a		9.5%	13.8%	12.3 - 15.4%	9.6%	15.1%	13.5 - 16.8%
Quebec	7.2%	11.3%	10.8 - 11.9%	7.5%	10.9%	10.2 - 11.8%	6.2%	9.4%	8.6 - 10.2%
Ontario	7.7%	11.6%	11.26 - 12.0%	8.1%	11.8%	11.1 - 12.5%	8.3%	12.1%	11.3 - 13.0%
Manitoba	n/a	n/a		9.3%	12.4%	10.5 - 14.4%	8.9%	12.9%	11.0 - 14.7%
Saskatchewan	n/a	n/a		6.3%	9.5%	8.2 - 10.9%	6.5%	9.7%	8.4 - 10.9%
Alberta	6.6%	10.4%	9.6 - 11.2%	6.0%	9.1%	8.1 - 10.2%	6.8%	10.0%	8.9 - 11.1%
British Columbia	7.3%	11.0%	10.4 - 11.6%	7.7%	10.8%	9.8 - 11.8%	7.9%	11.5%	10.4 - 12.7%
Yukon	n/a	n/a		14.4%	17.8%	12.3 - 23.2%	9.5%	13.0%	9.7 - 16.3%
Northwest Territories	11.2%	14.2%	11.4 - 17.0%	11.6%	16.5%	10.5 - 22.4%	13.7%	17.8%	12.7 - 22.9%
Nunavut	33.1%	38.0%	27.0 - 49.0%	30.8%	35.4%	27.5 - 43.3%	32.3%	34.6%	20.1 - 49.1%

Province/ Territory	2009 ¹			2010			2011		
	Moderate & severe food insecurity (%)	Total food insecure (%)	95% CI ²	Moderate & severe food insecurity (%)	Total food insecure (%)	95% CI ²	Moderate & severe food insecurity (%)	Total food insecure (%)	95% CI ²
Newfoundland and Labrador	7.2%	11.8%	10.0 - 13.6%	6.2%	11.5%	9.4 - 13.6%	7.2%	10.6%	8.7 - 12.4%
Prince Edward Island	n/a			n/a	n/a		9.8%	15.4%	12.4 - 18.4%
Nova Scotia	10.4%	15.9%	14.0 - 17.7%	10.1%	14.9%	12.7 - 17.2%	12.1%	17.1%	15.0 - 19.2%
New Brunswick	n/a			n/a	n/a		10.4%	16.5%	14.6 - 18.4%
Quebec	7.2%	11.3%	10.3 - 12.3%	6.5%	9.7%	8.8 - 10.7%	7.6%	12.5%	11.4 - 13.6%
Ontario	9.2%	12.5%	11.7 - 13.3%	8.1%	11.3%	10.7 - 12.0%	8.2%	11.9%	11.0 - 12.8%
Manitoba	8.1%	10.8%	9.0 - 12.6%	6.1%	10.0%	8.3 - 11.7%	7.4%	12.4%	10.5 - 14.3%
Saskatchewan	5.3%	8.2%	6.8 - 9.6%	6.8%	9.2%	7.4 - 11.0%	8.2%	11.8%	9.6 - 13.9%
Alberta	7.1%	10.8%	9.4 - 12.1%	7.2%	10.9%	9.8 - 12.1%	8.5%	12.3%	10.8 - 13.8%
British Columbia	8.2%	11.9%	10.7 - 13.0%	8.2%	11.1%	10.0 - 12.2%	7.6%	11.0%	9.9 - 12.2%
Yukon	12.1%	13.9%	9.4 - 18.3%	9.8%	12.6%	8.7 - 16.5%	10.4%	16.7%	13.1 - 20.4%
Northwest Territories	7.8%	9.8%	5.7 - 13.8%	10.5%	12.0%	8.2 - 15.8%	13.0%	15.2%	12.0 - 18.4%
Nunavut	28.9%	31.0%	26.4 - 35.5%	25.9%	31.0%	22.5 - 39.5%	32.9%	36.4%	29.4 - 43.4%

1 In 2005 (CCHS 3.1), Newfoundland and Labrador, New Brunswick, Manitoba, Saskatchewan and Yukon did not elect to measure food insecurity. In 2009-2010, Prince Edward Island and New Brunswick did not measure food insecurity.

2 95% confidence intervals are provided for the total food insecure. Where confidence intervals do not overlap, observed differences in prevalence estimates can be considered statistically significant.

Endnotes

- i Please see the Office of Nutrition Policy and Promotion (Health Canada) website at <http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/insecurit/index-eng.php>.
- ii United Nations Food and Agriculture Organization (1996), *Rome Declaration on World Food Security, World Food Summit Plan of Action*, paragraph 1, Rome: November 1996. Available at: <http://www.fao.org/docrep/003/w3613e/w3613e00.htm>, Accessed 3/11/2013.
- iii McIntyre L, et al. Depression and suicide ideation in late adolescence and early adulthood are an outcome of child hunger. *J Affect Disord* 2012, <http://dx.doi.org/10.1016/j.jad.2012.11.029>. Kirkpatrick S, et al. Child hunger and long-term adverse consequences for health. *Arch Pediatr Adolesc Med* 2010; 164: 754-762.
- iv Che J, Chen J. Food insecurity in Canadian households. *Health Rep* 2001; 12: 11-22. Galesloot S, et al. Food insecurity in Canadian adults receiving diabetes care. *Can J Diet Prac Res* 2012; 73: e261-e266. Gucciardi E, et al. Exploration of the relationship between household food insecurity and diabetes care in Canada. *Diabetes Care* 2009; 32: 2218-2224. Fuller-Thomson E, Nimigon J. Factors associated with depression among individuals with chronic fatigue syndrome: findings from a nationally representative survey. *Fam Pract* 2008; 25: 414-422. Muirhead V, et al. Oral health disparities and food insecurity in working poor Canadians. *Community Dent Oral Epidemiol* 2009; 37: 294-304. Vozoris N, Tarasuk V. Household food insufficiency is associated with poorer health. *J Nutr* 2003; 133: 120-126. Willows N, et al. Associations between household food insecurity and health outcomes in the Aboriginal population (excluding reserves). *Health Rep* 2011; 22: 1-6. McLeod L, Veall M. The dynamics of food insecurity and overall health: evidence from the Canadian National Population Health Survey. *Applied Economics* 2006; 38: 2131-2146.
- v Anema A, et al. Food insecurity and HIV/AIDS: current knowledge, gaps, and research priorities. *Current HIV/AIDS Reports* 2009; 6: 224-231. Gucciardi E, et al. Exploration of the relationship between household food insecurity and diabetes care in Canada. *Diabetes Care* 2009; 32: 2218-2224. Marjerrison S, et al. Prevalence and associations of food insecurity in children with diabetes mellitus. *J Pediatr* 2010. Seligman HK, et al. Food insecurity and glycemic control among low-income patients with type 2 diabetes. *Diabetes Care* 2012; 35: 233-238.
- vi For more information about Aboriginal Peoples living in Canada, see <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/99-011-x2011001-eng.cfm>.
- vii There is a growing effort by Health Canada to collect data for First Nations living on Reserve. See for example, the First Nations Food, Nutrition and Environment Study (FNFNES) which include a food security module. <http://www.fnfnes.ca/>
- viii See Gaetz S, et al. *The State of Homelessness in Canada 2013*. Homeless Hub Paper #4. Toronto, ON: Canadian Homelessness Research Network Press, 2013.
- ix See *Income related Household Food Security in Canada*, Canadian Community Health Survey, cycle 2.2, Nutrition (2004) Health Canada, 2007, Cat. H164-42/2007E-PDF, ISBN 978-0-662-45455-7, HC Pub. No. 4696. http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/income_food_sec-sec_alim-eng.php#metho251.
- x Marginal food insecurity is not a category used in Health Canada's publications on this module. Following their classification system, those with a single response are considered food secure. The marginal category is included in this report because of a growing body of literature indicating that households reporting at least some level of uncertainty over their access to food are more vulnerable than those who have affirmed no items on the 18-item questionnaire. Coleman-Jensen, A J. U.S. food insecurity status: toward a refined definition. *Soc Indic Res* 2010; 95: 215-230.
- xi Percentages and numbers provided in this report refer to the total population with complete responses to the food security module. In the 2011 Canadian Community Health Survey, approximately 4 percent of Canadian households did not have complete responses to the food security module, and these households have been excluded.
- xii We measure general income adequacy by taking the household income as a ratio of Statistics Canada's Low Income Measure (LIM). Briefly, to calculate the LIM, household income is adjusted by the equivalent household size (by dividing household income by the square root of the number of household members) and the median over all individuals in the population is taken. The LIM for a single person household is 50% of the median of this adjusted household income. The LIM for households of other sizes are computed by multiplying the single person LIM by the equivalent household size. This figure excludes results for the territories because the Survey of Labour and Income Dynamics, the survey from which the LIM is derived, excludes the territories.
- xiii The number of households in the sample whose main source of income is dividends and interest is relatively small. Other research has shown that households whose main source of income is dividends and interest demographically resemble those age 65+ so they have been included in with households whose main source of income is pensions.
- xiv Although the Household Food Security Module was included in CCHS 2004, this survey has not been included in our comparison because it is not considered to be comparable to the subsequent annual surveys. See <http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/insecurit/prov-ter-2005-eng.php>
- xv Coleman-Jensen, Alisha, Mark Nord, Margaret Andrews, and Steven Carlson. *Household Food Security in the United States in 2011*. ERR-141, U.S. Department of Agriculture, Economic Research Service, September 2012.