

FOOD INSECURITY by Ingrid Ledrou and Jean Gervais

The presence of food banks and school “breakfast clubs” in Canada indicates that not everyone has ready access to a healthy diet. Insufficient food—either quality or quantity—can lead to vitamin and mineral deficiencies, and even to serious health problems.^{1,2}

In 2000/01, the Canadian Community Health Survey (CCHS) asked respondents aged 12 or older if, because of a lack of money, in the previous year they or someone in their household had not eaten the quality or variety of food that they had wanted; had worried about not having enough to eat; or had actually not had enough to eat. Respondents were considered to be living in a “food-insecure” household if they had been in at least one of these situations because of a lack of money. According to this definition, an estimated 3.7 million Canadians, or 14.7% of the population aged 12 or older, had experienced food insecurity.

Reflects income

Since food insecurity is defined in financial terms, rates reflect household income.^{3,4} More than 40% of people in low- or lower-middle-income households reported food insecurity. Even in middle-income households, almost 25% reported at least one aspect of the problem. While food insecurity was much less common in higher-income households, it was not unknown: 11% of people in upper-middle- and 4% in high-income households reported at least one dimension.

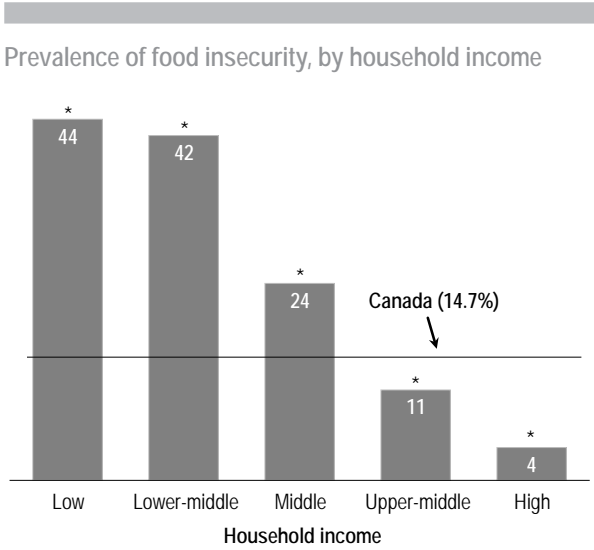
Food insecurity may exist at higher income levels because annual income is a static measure that is not sensitive to sudden economic changes that could contribute to temporary episodes of food insecurity.⁵ For example, the impact of a job loss or the death of an income-earner around the time of the CCHS interview would not be reflected in reported household income, which covered the previous 12 months.⁶

At risk

The younger the person, the more likely he or she was to report food insecurity. About 18% of people aged 12 to 44 had experienced food insecurity (Table A). This may partly be attributable to lower incomes of young people who are still in school or who have recently entered the labour market. It could also capture the financial responsibilities of many young families—paying for a home and raising children, for example.

While just 7% of seniors reported food insecurity, factors other than monetary resources may put their nutrition at risk. Illness or physical restrictions, for instance, may limit seniors’ ability to shop and prepare meals.

A higher percentage of women than men reported food insecurity: 16% versus 13%. This difference, however, is largely the result of factors such as household income and family structure. In fact, when these effects were taken into account, women were no more likely than men to report food insecurity (data not shown).



Data source: 2000/01 Canadian Community Health Survey
 * Significantly different from estimate for Canada (p < 0.05)

Nonetheless, one group of women was at especially high risk: a third (33%) of female lone parents reported food insecurity.⁷ This was almost double the figure for male lone parents (18%). Just 9% of people who were partners in a couple without children reported food insecurity.

The rate was also notably high among off-reserve Aboriginal people: 31% replied affirmatively to at least one of the food insecurity questions, more than double the rate for non-Aboriginals (14%).

Provincial/Territorial differences

Food insecurity is closely tied to geography, and residents of the territories were particularly vulnerable. In Nunavut, over half the population (56%) reported food insecurity. Rates in the Northwest Territories (28%) and Yukon (21%) were also well above the national level.

Food insecurity was less common in the provinces yet, at 17%, was significantly above the national level in Alberta, Saskatchewan, Nova Scotia and British Columbia. In Prince Edward Island, Ontario and Québec, rates were significantly low.

Level of severity

The three dimensions of food insecurity are not equally serious. Not eating the desired quality or variety of foods and “worrying” about not having enough to eat are less problematic than

actually not having sufficient food. As well, the dimensions of food insecurity follow a typical progression, with those who report the most serious level also reporting the less severe levels.

In 2000/01, 7% of Canadians reported that, in the past year, they or someone in their household did not have enough to eat because of a lack of money. Higher percentages had compromised the

quality or variety of their diet (12%), or had worried about not having enough to eat (11%). Not surprisingly, each dimension of food insecurity was most common in lower-income households.

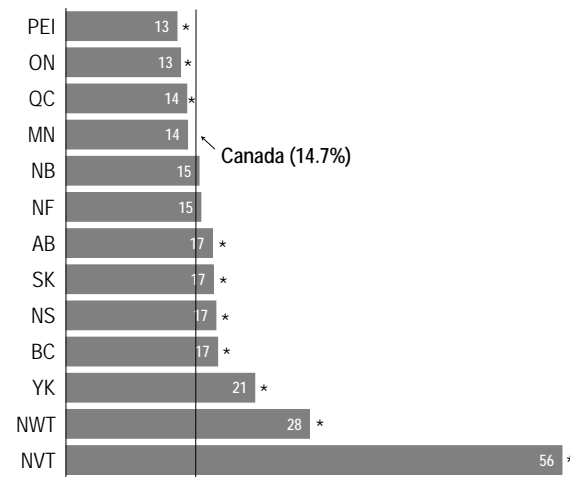
Not enough to eat

Overall, 28% of people in low- and lower-middle-income households had not had enough to eat at some point in the past year, compared with 5% of those in middle- to high-income households.

In almost every province, at least a quarter of residents of low- and lower-middle income households reported an instance of not having enough to eat in the past year. The proportion ranged from 24% in Prince Edward Island and Saskatchewan to almost 30% in Alberta and British Columbia.

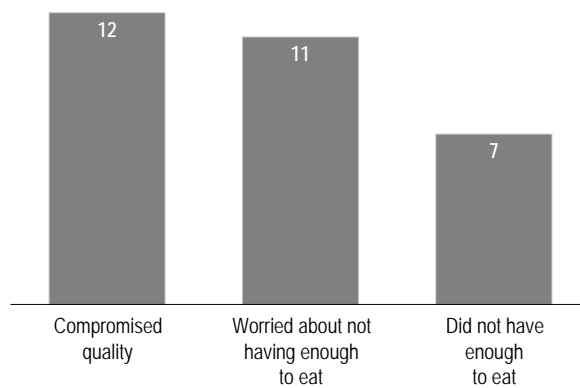
The problem tended to be even more common in low- and lower-middle-income households in the territories. In Nunavut, two-thirds (68%) of people in such households had had at least one occasion in the previous year when they had not had

Prevalence of food insecurity, by province or territory



Data source: 2000/01 Canadian Community Health Survey
 * Significantly different from estimate for Canada (p < 0.05)

Percentage of population reporting each dimension of food insecurity



Data source: 2000/01 Canadian Community Health Survey

enough food because of a lack of money. The comparable figure in the Northwest Territories was 49%. By contrast, the percentage in Yukon (30%) did not differ from the national level.

As well, in both Nunavut and the Northwest Territories, significantly large proportions of residents of higher-income households reported not having enough food at least once in the past year: 40% and 12%, respectively.

Prevalence of food insecurity and not having enough to eat, by household income

	Total food insecurity			Not enough to eat		
	Total	Low/ Lower-middle income	Middle to high income	Total	Low/ Lower-middle income	Middle to high income
	%			%		
Canada	15	42	12	7	28	5
Newfoundland and Labrador	15	45	9*	8	28	3*
Prince Edward Island	13*	34*	10*	6	24	4
Nova Scotia	17*	46	12	8	26	5
New Brunswick	15	46	10	7	28	4*
Québec	14*	42	10*	7	28	4*
Ontario	13*	41	11*	7*	27	5
Manitoba	14	39	11	7	26	5
Saskatchewan	17*	42	13*	7	24*	5
Alberta	17*	43	15*	9*	29	7*
British Columbia	17*	46*	14*	8*	30	6*
Yukon	21*	58*	18*	10	30 ^E	7 ^E
Northwest Territories	28*	61*	22*	18*	49*	12*
Nunavut	56*	74*	47*	49*	68*	40*

Data source: 2000/01 Canadian Community Health Survey

* Significantly different from estimate for Canada

^E Coefficient of variation between 16.6% and 33.3%

Food insecurity, however, is a subjective concept that is not understood in the same way by everyone. Moreover, these results are based on the assumption that all members of a household would reply in the same way as the person selected to respond to the CCHS, but this may not be true. For example, children living in a household identified as food insecure are not necessarily “food insecure” themselves,

because adults may compromise their own diets so that the children are not affected.^{6,9}

More detailed information about the prevalence and correlates of food insecurity in Canada will be available from cycle 2.2 of the CCHS, which was conducted in 2004 and focused on nutrition. That survey contains in-depth questions about the nature of food insecurity and the adults and children who are affected.

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The Questions

Food insecurity means that the availability of nutritionally adequate and safe foods or the ability to acquire food in socially acceptable ways is limited and uncertain.⁸ In cycle 1.1 of the Canadian Community Health Survey (2000/01), food insecurity was determined with three questions. “In the past 12 months, how often did you or anyone else in your household:

- not eat the quality or variety of foods that you wanted to eat because of a lack of money?”
- worry that there would not be enough to eat because of a lack of money?”
- not have enough food to eat because of a lack of money?”

For each question, the choices were: often, sometimes, or never. Respondents who replied “often” or “sometimes” to at least one question were considered to have experienced food insecurity. Those who replied “never” to all three questions did not experience food insecurity.

Data source

Estimates of food insecurity were obtained from the first cycle (1.1) of the Canadian Community Health Survey (CCHS), which was conducted between September 2000 and October 2001. The CCHS is a general health survey that covers the population aged 12 or older living in private households. It does not include residents of Indian reserves, Canadian Forces bases, and some remote areas. The overall response rate for cycle 1 was 85%; the total sample size was 131,535.

All differences were tested to ensure statistical significance. To account for survey design effects, standard errors and coefficients of variation were estimated using the bootstrap method.^{10,11} A significance level of $p < 0.05$ was applied in all cases.

The prevalence of food insecurity may be underestimated because the CCHS does not cover the homeless, or Aboriginal people living on Indian reserves, two groups among whom the prevalence of food insecurity might be relatively high.

Because the analysis is based on cross-sectional data, no conclusions about cause-and-effect relationships can be made.

References

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Table A**Prevalence of food insecurity, by selected characteristics, household population aged 12 or older, Canada, 2000/01**

	Estimated food-insecure population	
	'000	%
Total	3,739	14.7
Sex		
Male	1,679	13
Female	2,060	16
Age group		
12-17	428	18*
18-24	537	19*
25-44	1,659	18*
45-64	859	12
65+	256	7*
Household income		
Low	388	44*
Lower-middle	741	42*
Middle	1,256	24*
Upper-middle	882	11*
High	248	4*
Missing	223	9*
Family type		
Couple with child(ren) <25	1,584	13*
Couple without child(ren) <25	544	9*
Lone mother with child(ren) <25	625	33*
Lone father with child(ren) <25	80	18*
Unattached individual	812	19*
Other	44	15
Aboriginal status		
Yes	252	31*
No	3,448	14
Province/Territory		
Newfoundland and Labrador	70	15
Prince Edward Island	15	13*
Nova Scotia	133	17*
New Brunswick	96	15
Québec	844	14*
Ontario	1,316	13*
Manitoba	124	14
Saskatchewan	133	17*
Alberta	406	17*
British Columbia	578	17*
Yukon	5	21*
Northwest Territories	9	28*
Nunavut	11	56*

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* Significantly different from estimate for Canada ($p < 0.05$)