

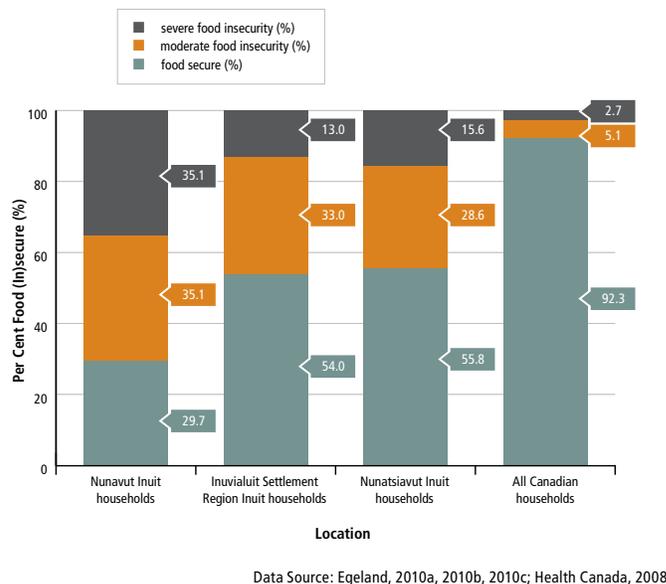
# Report in Focus

## ABORIGINAL FOOD SECURITY IN NORTHERN CANADA: AN ASSESSMENT OF THE STATE OF KNOWLEDGE

**F**ood security is a growing challenge. The global economic crisis and increased food prices have made the situation more urgent for the world's 870 million chronically undernourished people. In 2011, 12% of Canadian households experienced food insecurity, with one in eight households affected, or 3.9 million individuals. Of these, 1.1 million were children. Food insecurity presents a particularly serious challenge in Canada's remote Aboriginal communities. In 2011, off-reserve Aboriginal households in Canada were about twice as likely as other Canadian households to be food insecure. Due to the high cost of importing food to the North, the average cost of groceries for a household with children in Nunavut, Nunatsiavut (NL), and the Inuvialuit Settlement Region (NWT and YT) in 2007–2008 was \$19,760 per year, yet 49% of Inuit adults earned less than \$20,000. With growing importance being placed on northern economic development, there is increased pressure to deal with food insecurity. Solutions require the involvement not just of policy-makers but of those most affected by food insecurity: people living in the North.

### Food Security and Food Insecurity

As proposed by the FAO Committee on World Food Security in 2012, the most current definition of food security has been expanded to emphasize the importance of nutrition. *Food and nutrition security* exist "when all people at all times have physical, social and economic access to food, which is safe and consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for a healthy and active life." *Food insecurity* is the converse. It is an outcome of inadequate or uncertain access to an acceptable amount and quality of healthy food.



**Figure 1**  
Prevalence of Household Food Insecurity Across Northern Regions

### CHARGE TO THE EXPERT PANEL

In recognition of this problem, the Minister of Health, on behalf of Health Canada, asked the Council of Canadian Academies to appoint an expert panel to respond to the following question:

*What is the state of knowledge of the factors influencing food security in the Canadian North and the health implications of food insecurity for Northern Aboriginal populations?*

To undertake the assessment, the Council appointed a multidisciplinary panel of national and international experts that included Aboriginal and non-Aboriginal scholars, most of whom have lived and worked in northern communities. The Expert Panel examined peer-reviewed literature along with credible reports and articles, and they ensured that evidence was informed by traditional knowledge and community-based research. Council assessments do not involve widespread consultations, but the Panel worked with National Aboriginal Organizations to locate additional data and ensure that conclusions were based on a diversity of evidence sources.

# Food Security in the North – A People-centred Approach

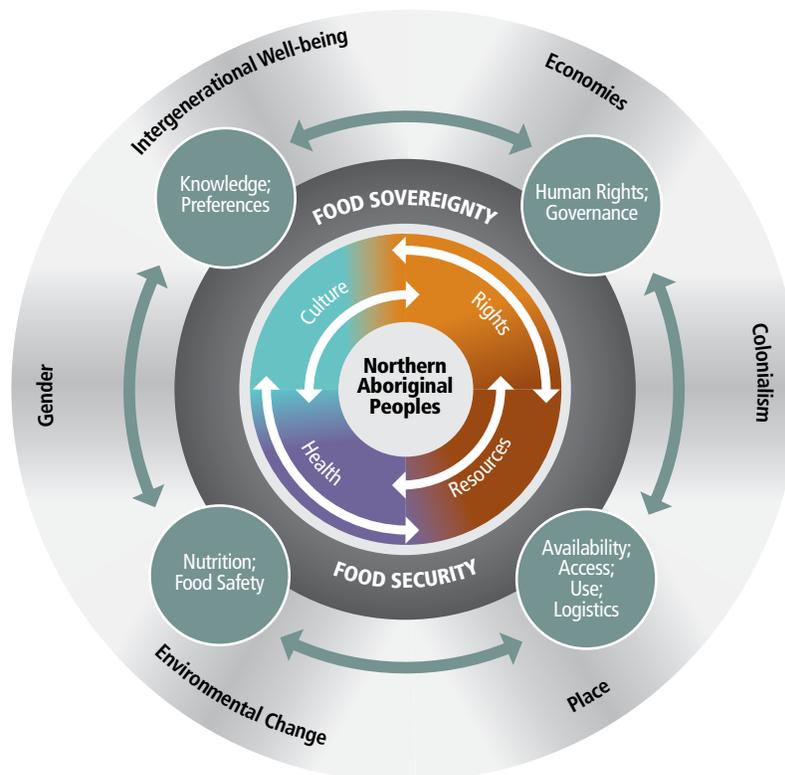
Beyond the price of groceries, food security is a complex issue of human health and well-being that requires multiple solutions. To understand food security in northern Aboriginal environments, the Panel took a holistic approach. This people-centred framework presents the many factors that influence life in the North. For example, environmental change poses a specific threat to traditional/country food sources in the North because it affects wildlife abundance and availability, the extent to which humans can safely access wild food, and the safety and quality of the food. Environmental change also affects the logistics of store-bought food. While shipping food may become easier in some cases, less predictable freezing and thawing of the sea ice can affect access to ports, and melting permafrost can interfere with airport infrastructure and the safety of ice roads.

Food security and food sovereignty are equally important (see Finding 4), and are not viewed by the Panel as separate. Rather, they are shaped by the interactions of all the factors

shown in the framework. These interrelationships create new considerations for understanding and addressing food security and food sovereignty in the North.

The innovative conceptual framework (Figure 2) considers the scope of evidence and expertise that is explored in the report. It demonstrates that the state of knowledge of Aboriginal food security in the North can only be understood through a multifaceted and nuanced perspective that respects the various experiences of diverse First Nations, Inuit, and Métis communities. The framework can serve as a tool for policy-makers, researchers, and, most of all, those individuals and communities affected by food security challenges in the North, to help build meaningful and lasting solutions.

Canada is in a position of strength to address the challenge of food insecurity. We have the tools and knowledge to build food security in the North, which is our collective responsibility.



**Figure 2**  
**The Panel's Conceptual Framework**  
 To view a descriptive video of this people-centred framework, please visit [www.scienceadvice.ca](http://www.scienceadvice.ca).

*Eating and hunting personify what it means for us to be Inuit.*

—Sheila Watt-Cloutier  
Former Chair of the Inuit Circumpolar Council

## Key Findings

*Aboriginal Food Security in Northern Canada: An Assessment of the State of Knowledge* offers policy-makers a holistic starting-point for discussion and problem-solving. It also provides evidence and options to researchers and communities engaging in local responses.

**1. Food insecurity is a serious problem in northern and remote Aboriginal communities across Canada.** Aboriginal households experience food insecurity at a rate about two times higher (27.1%) than non-Aboriginal households (11.5%). Households with children report even higher rates of food insecurity, and more women than men are affected. Results from the 2007–2008 International Polar Year Inuit Health Survey show that the people of Nunavut had the highest food insecurity rate for any Indigenous population in a developed country (68%). Food insecurity has negative impacts on individuals, families, and communities, as well as far-reaching social, public health, environmental, and economic implications for the North and the rest of Canada. Chapter 3 of the report examines the scope of the problem.

**2. Food security is a complex issue with significant implications for health and wellness.** Food insecurity is linked to negative physical outcomes such as under-nutrition and obesity, and to diet-sensitive chronic diseases such as diabetes and cardiovascular disease. It is also linked to poverty, poor educational outcomes, and stress. While these issues alone have serious social and economic impacts, Aboriginal definitions of health and wellness extend beyond the physical to include mental, spiritual, emotional, and social dimensions. Various assimilationist policies have denied Aboriginal peoples access to the lands and resources of their traditional territories, and have disrupted local economies, the sharing of local environmental knowledge, and intergenerational well-being. The impacts continue to resonate, with significant implications for food security.

**3. There is a nutrition transition taking place in the rapidly changing North.** While food sharing networks remain a key part of many northern Aboriginal cultures and economies, a nutrition transition is underway due to social, economic,

cultural, technological, political, and environmental changes. This transition, examined in Chapter 7 of the report, refers to the shift from nutrient-rich locally sourced food (hunted or harvested) to store-bought food. While a single portion of local animal or fish food results in increased levels of energy, protein, and many essential vitamins and minerals, much of the food bought from stores in the North tends to be highly processed and low in nutrients. As a result, the nutrition transition is associated with a decrease in dietary quality. Together, food insecurity and the nutrition transition represent a double burden.



Data Source: Nunavut Inuit Child Health Survey, 2007–2008, as presented in Egeland et al., 2010

**Figure 3**  
**Food Insecurity Among Inuit Preschoolers in Nunavut, 2007–2008**

**4. The concepts of food security and food sovereignty are equally important in understanding the problem and finding effective, multi-sectoral solutions.** While food security focuses on the pillars of *nutrition, access, availability, acceptability, adequacy, and use* to ensure that all people at all times have physical, social, and economic access to food, the concept of food sovereignty is based on human rights. At its core is the principle that decisions about food systems should be made by those who depend on them. While the obligation to realize the right to adequate food rests with national and provincial/territorial governments, partnerships between those governments and those affected are essential to developing useful, long-term solutions to food insecurity.

**5. Many factors enable or serve as barriers to food security and food sovereignty.** As depicted in the conceptual framework (Figure 2), the issue of food security is ultimately about the health and well-being of people. People and

“People are not just beneficiaries of programs; they are what make programs happen.”

– Expert Panel Chair, Dr. Harriet Kuhnlein, on creating successful food system interventions

communities have different relationships with these factors, depending, for example, on their reliance on locally sourced versus store-bought food. Food insecurity cannot be attributed to one cause. As Chapter 2 of the report makes clear, all of these factors have relationships with each other, many of which change over time.



**Figure 4**  
Cleaning the Day's Catch in Clyde River, NU

**6. There is no single experience of food insecurity.** Northern Canada is rich in cultural, social, ecological, geographic, economic, and climatic diversity. Distinct First Nations, Inuit, and Métis cultures, communities, and individuals have different experiences with food (in)security. Local strategies and adaptations to achieve food security and food sovereignty are similarly diverse. In a First Nations Regional Health Survey from the Dene Nation in NWT, for example, 90% of the 824 respondents indicated that, in the preceding year, an adult in their household either had cut the size of their meals or skipped meals, were hungry but did not eat, or ate less than they felt they should due to a lack of money for food. In 14 communities in northern Manitoba lacking all-weather roads or located north of the city of Thompson, 75% of households reported being food insecure; of these households, 42% were moderately food insecure and 33% were severely food insecure.



Data Source: Gionet & Roshanafshar, 2013

**Figure 5**  
Indigeneity, Gender, and Food Insecurity

**7. There is no single way to “solve” food security issues in the North. A range of holistic approaches is required.** A range of programs and policies will help reduce food insecurity. Short-term solutions can address acute needs, while policy and organizational changes can establish longer term solutions that focus on root causes. Collaboration among communities, institutions, local agencies, and local, provincial, and federal governments is important for successful initiatives. Geographic, cultural, environmental, and economic diversity calls for programs and policies that can respond to local needs and that are informed by traditional knowledge. Ideally, local food systems, sound economic development, and poverty-reduction strategies will also come into play.

**8. There exists a strong body of research and traditional knowledge with respect to food security and northern Aboriginal health, but several knowledge gaps persist.** These include gaps in our understanding of food security as a health determinant in the North, gaps associated with enablers of and barriers to food security, gaps with respect to store-bought

versus locally sourced food, and knowledge gaps with respect to the relationship between food security and local food. For example, more data are required on the differences in women and men's experiences of food insecurity, the extent to which Métis communities and households are food secure, the health and abundance of species used for food, and the supply chain costs of store-bought food systems.

**9. The food security measurement methods used to date have been valuable, but their ability to respond to the complex issue of food security in the northern Canadian Aboriginal context is limited.** It can be difficult to measure complex social issues using research tools. For example, the extent to which researchers can understand the links among traditional food systems, holistic health, community health, and individual health is limited. Beyond obtaining robust and comparable data sets, data collection tools and standards must be adapted to the varied realities of Aboriginal peoples in Canada. This adaptation could greatly benefit from involving Northerners. The inclusion of local knowledge and informal institutions is important for researchers to truly understand community health and risk management, as well as for policy-makers and communities to make decisions. A comprehensive picture of the situation across regions, age groups, gender, and communities is important to deliver evidence-based public policy.

## Promising Solutions

Many programs and policies, created and sustained by local leaders, communities, and governments, have already been implemented across northern Canada. Promising models from Canada and the circumpolar world are highlighted in Chapter 10 of the report.

*It is imperative at this time of adverse changes to our entire being as a peoples, that we engage the youth in every aspect of education of our ways of cultural survival and adaptation strategies.*

— Norma Kassi  
former Vuntut Gwich'in Chief

### Greenland: A Promising Practice

*Kalaaliminerniarfiit*, or open-air food markets, have been operating in Greenland for 150 years. They are maintained by local governments, and prices are set by the association of hunters and fishers. Licensed professionals sell their harvests commercially to local institutions, markets, and any of four government-controlled processing plants. Commercial access to country food was identified as a priority topic at the 2013 Nunavut Food Security Symposium. A first step in applying the Greenland experience to Canada may include revisiting requirements set by the Canadian Food Inspection Agency, which regulates the federal inspection of meat products. Some conditions for the processing, transportation, and sale of fish and meat products have been identified as barriers to food sovereignty and food security in remote and northern communities, in that some food that is actually available is not accessible to consumers. Monitoring the health of fish and wildlife populations is an equally important component.



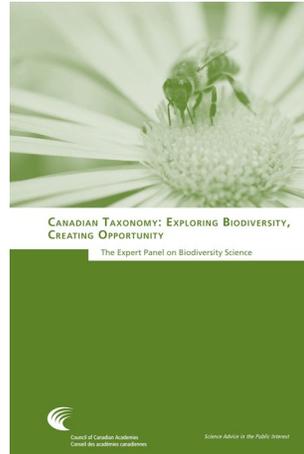
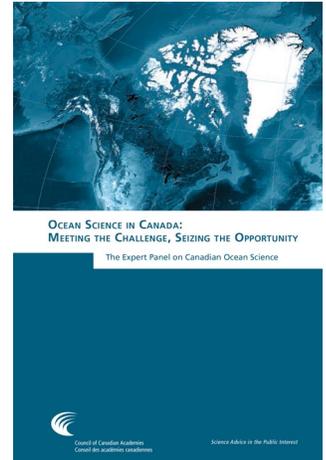
**Figure 6**  
Learning to Fish in Inuvik, NWT

## CONCLUSION

The North is undergoing important transitions that serve as both barriers to and enablers of food security. In order to deal with the issue, multi-sectoral approaches are called for, and any lasting solutions require policies and programs that are collaborative, grass-roots, and culturally appropriate. *Aboriginal Food Security in Northern Canada: An Assessment of the State of Knowledge* sets the stage for informed dialogue between policy-makers and northern communities about how to secure short-, medium-, and long-term solutions.

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**OTHER COUNCIL REPORTS THAT MAY BE OF INTEREST:**
**Vision for the Canadian Arctic  
Research Initiative: Assessing  
the Opportunities**

**Canadian Taxonomy:  
Exploring Biodiversity,  
Creating Opportunity**

**Ocean Science in Canada:  
Meeting the Challenge,  
Seizing the Opportunity**



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This *Report in Focus* was prepared by the Council based on the Report of the Expert Panel on the State of Knowledge of Food Security in Northern Canada.