Climate change and food insecurity among females in an Inuit community

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Abstract
This case study explores ways in which a rapidly changing climate in the Arctic and socio-economic transformations impact the food security of Inuit women in the community of Igloolik, Nunavut. Focus group discussions in addition to semi-structured interviews with Inuit women and key informants helped identify various determinants of food insecurity, and assess the role of current and future climate change. Results highlight multi-level interactions between biophysical and human determinants of food security, with multiple stresses interacting to create acute food insecurity among certain community members.

Objective
Identify and characterize the key factors determining the vulnerability of Inuit women to food insecurity within the context of changes in livelihoods and climatic conditions, in the Inuit community of Igloolik, Nunavut.

Methodology
Research approach: Participatory community-based research in Igloolik, Nunavut (1538 people)
Purposive sampling: 36 Inuit women, permanent residents, aged 18 and over
Data collection:
- Semi-structured interviews with Inuit women (n=36)
- Semi-structured interviews with key informants (n=36)
- 5 focus groups with Inuit women (n=19)
- Environmental scan & Participant observation
Analysis:
- Thematic analysis using QSR NVivo
- Concept mapping

Experience of food insecurity among women in Igloolik
In 2007-2008, women had difficulty obtaining country food and store bought food:

- 40% did not have enough to eat at least once in the previous year; commonly occurring every month
- 55% were anxious about running out of food, especially close to payday
- 76% skip meals or cut size of their meals regularly
- 85% experienced a decrease in the access to country food, particularly caribou and walrus

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Determinants of Inuit women’s food insecurity

Weakening of Food Sharing
Women noted decreased food sharing in recent years, notably due to increasing hunting cost.

“As a child everybody was sharing what they caught. Nobody would buy country food from somebody else. And now the only time I see people sharing is if the hunting trip was very successful. [...] People are sorry because there is only a limited amount of food and they want to take it home to feed their own family.” (Leah A.)

Environmental Conditions
Women noted a shortage of country food (walrus and caribou).

“Lack of ice and floating ice, longer and later ice freeze up have been associated to the decrease in access to hunting areas and limited the ability for food trade with other communities at key times.”

Store Food Affordability, Availability, Quality & Budgeting Skills
94% of women noted that cost of store food and cost of living limit food availability.

“Food at the store is more than twice the price of food in Montreal. Fresh food items with high nutritional value are often not available/affordable/of sufficient quality.”

Women have difficulties in planning their expenses.

“Food budget was described as being more flexible than other expenses, with women reporting cutting down on food expenses when power bills and house rent payment are due.”

“It isn’t necessarily that the nutritious food is [always] more expensive than the poorer choices, [...] it’s also knowledge and preferences and skills with managing money that are a very big challenge, maybe one of the biggest barriers.” (Public health nutritionist)

Hunting cost and decline in hunting
Decline in full time hunters and fewer outpost camps have shrunk the supply of country food.

“High hunting costs prevent potential and capable hunters from hunting.”

Without availability of other things to do besides hunting, the youth have turned to things that they like to do, so the hunting has almost dwindled.” (Emma)

Gambling and Substance Addictions
Substance addiction and gambling were identified as increasing women’s food insecurity by constraining financial resources, affecting sharing, disrupting household dynamics, and straining family relationships.

“People share less food today than when I was young” because of the money, and the drugs, and the alcohol, and the gambling.” (Anonymous)

Conclusion
This research documents widespread food insecurity among Inuit women in Igloolik, NU. Susceptibility to food insecurity is determined by a complex interaction between multiple social-economic-environmental factors. Inuit food system being particularly sensitive to environmental condition, climate change is exacerbating women food insecurity in various ways, with implication for weakening of sharing networks, erosion of hunting skills among younger generations, and increasing cost pressures.

Store Food Knowledge
Women, in general, have a limited knowledge on store food, nutrition and cooking.

“Many women’s food choices are influenced by their taste preference, or that of their children rather than nutritional value or price.”

Few educational programs targeting health, nutrition and store foods preparedness are offered in Igloolik.

“I think we need more [program promoting healthy eating], Head Start is great, it helps us to cook properly and help us knowing how to buy stuff so that our meals get bigger.” (Leah A.)