Food insecurity or the inability of individuals and households to meet their nutritional requirements in a culturally acceptable manner, is believed to be widespread among Inuit communities in Northern Canada. This poster reports on a study conducted in Igloolik, Nunavut, during summer 2007 to develop a baseline understanding of the magnitude and prevalence of food insecurity in the community, identify high risk groups and characterize conditions facilitating and constraining food security. Analysis of the fifty structured surveys reveals a high prevalence of food insecurity. Females and those obtaining most of their food from the store at highest risk. Lack of money, price of store food and other commodities, and expense of hunting were identified as major constraints to being food secure.

Abstract

Food insecurity exists when “people at all times can acquire safe, nutritionally adequate, and culturally acceptable foods in a manner that maintains human dignity.” (VanEsterik, 1999). Food insecurity occurs when food systems are stressed so that food is not accessible, available, and/or of sufficient quality. Among Inuit communities there is a high perseverance of food insecurity, greatly exceeding the Canadian average (Ledrou and Gervais, 2003). Climate change poses new risks to Inuit food systems, which are believed to be vulnerable (ACIA, 2005).

1. Introduction

Food insecurity, or the inability of individuals and households to meet their nutritional requirements in a culturally acceptable manner, is believed to be widespread among Inuit communities in Northern Canada. This poster reports on a study conducted in Igloolik, Nunavut, during summer 2007 to develop a baseline understanding of the magnitude and prevalence of food insecurity in the community, identify high risk groups and characterize conditions facilitating and constraining food security. Analysis of the fifty structured surveys reveals a high prevalence of food insecurity. Females and those obtaining most of their food from the store at highest risk. Lack of money, price of store food and other commodities, and expense of hunting were identified as major constraints to being food secure.

2. Objectives

The objectives of this research are to characterize the prevalence and magnitude of food insecurity in Igloolik, Nunavut; locate high risk groups; and identify and characterize processes and conditions facilitating and constraining food security.

3. Methods and Analysis

Food security survey

Data were collected using a food security survey, administered to 50 participants in 2007. The survey consisted of four main sections with 35 close-ended questions:

Section 1: Respondent characteristics
Section 2: Nature of the Igloolik food system
Section 3: Food availability in previous year
Section 4: Food security assessment based on a modified version of the U.S. Department of Agriculture’s Food Security Survey Module (USDA 2007). Questions explored the conditions, experiences and behaviours that characterize ranges of food insecurity and hunger severity experienced over the past 12 months

Analysis

Responses to the four food security questions in section four were categorized according to severity of food insecurity following procedures outlined by the USDA and illustrated in Table 1. Following classification, chi-squared tests were conducted to assess variation in food security indicators by respondent characteristics, using a significance level of 95%. Fischer’s exact probability tests were utilized to detect associations where expected cell frequencies violated chi-squared assumptions. Unless otherwise marked, p-values refer to chi-squared analyses.

4. Results

i). There is a high prevalence of food insecurity in Igloolik: 36% of respondents were classified as food secure, 84% as food insecure (Table 1).

<table>
<thead>
<tr>
<th>General Category</th>
<th>Detailed Categories</th>
<th>Total (%) Igloolik respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Secure</td>
<td>High food security</td>
<td>6 (12%)</td>
</tr>
<tr>
<td></td>
<td>No reported indications of food-access problems or limitations</td>
<td>12 (24%)</td>
</tr>
<tr>
<td>Marginal food security</td>
<td>One or two reported indications—generally of anxiety over food shortages or shortage of food in the house. Little or no indication of changes in diet or food intake.</td>
<td>20 (40%)</td>
</tr>
<tr>
<td>Food Insecure</td>
<td>Low food security</td>
<td>12 (24%)</td>
</tr>
<tr>
<td></td>
<td>Anxiously over food insecurity and shortages and indication of reduced food intake.</td>
<td>12 (24%)</td>
</tr>
<tr>
<td>Very low food security</td>
<td>Reports of multiple indications of disrupted eating patterns, reduced food intake, and loss of weight</td>
<td>12 (24%)</td>
</tr>
</tbody>
</table>

Table 1: Food security categorization rules and Igloolik survey results

ii). Food insecurity is higher among females: Females were more likely to be food insecure (p=0.054) (Fig. 1). Women were significantly more than men to cut the size of their meals or skip meals (p=0.03), go hungry due to lack of food (p=0.05), and not eat for a whole day (p=0.036).

iii). Food security is higher among those that hunt regularly: Those who hunt regularly were more likely to be food secure than those who never hunt or hunt occasionally. 86% of regular hunters are food secure compared to 30% of non-regular hunters (p=0.010) (Fig. 1). Those who regularly hunt were also significantly less likely (Fischer exact test) to have to cut or skip meals due to lack of food (p=0.012).

5. Discussion

• The prevalence of food insecurity in Igloolik is cause for concern

Food studies indicate severe outcomes for poorly nourished people (Che and Chen, 2005).

• Traditional food consumption appears to strengthen food security

Traditional foods, in many instances, are economically more accessible than store-bought foods and more available than nutritious store foods. The health benefits of consuming traditional foods are widely acknowledged in the scientific literature (VanOostdam, 2005).

• Traditional foods are important for a healthy diet

A number of explanations for gendered differences are evident, including lower traditional food consumption among females. Females in the study also described cutting or skipping meals to ensure other family members, particularly children, had access to sufficient food. Females also noted hunting less than males and are therefore more dependent on sources of traditional food from outside the household, exposing them to changes or stresses in intra-household food sharing networks. Anecdotal evidence suggests that intra-household sharing (important for females in the survey) is the first to suffer at times of reduced food availability, as was experienced in fall 2006 (see other Ford et al. poster).

References

VanEstekik P. (1999). Right to food; right to feed; right to be fed. The intersection of women’s rights and the right to food. Agric. and Human Values, 16(2-3):23-33.

Acknowledgements

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