

INTRODUCTION

Charlotte Jeppesen, Ph.D. fellow
Centre for Health Research in Greenland
National Institute of Public Health
University of Southern Denmark

In 1996 the World Food Summit defined food security as present when “all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life.” In this definition, “access” is meant as both physiological and economic access. Traditional foods are the basis for food security in many circumpolar regions since they are a natural resource of the environment. It was not surprising, then, to see a focus on access to traditional foods at the Congress. Specific attention was given to climate change, as it has a major impact on food security in circumpolar regions. Currently, alterations are being seen in the natural habitat for both terrestrial and marine wildlife, as well as wild fowl. Access may be indirectly worsened by climate change, which would make it difficult for people to remain in their current places of residence and could lead to population migration. It can also lead to a lack of the resources needed to obtain appropriate food for a nutritious diet. A good example of this is seen in Greenland, where climate change has caused the sudden appearance and disappearance of cod and shrimp stocks, resulting in massive migrations from areas such as Qasigiannuguit, which has been left with the highest unemployment rate in Greenland for this decade. Food insecurity can also be caused by decreased utilization, that is, food not being appropriately used because of an insufficient knowledge of basic nutrition or how to use and prepare traditional food.

Another example is pollution. It plays a significant role because heavy metals and various contaminants accumulate in top predators like whales and seals. Indeed, pollution has prompted new food recommendations in the Faroe Islands, where pilot whale meat is not advised for human consumption due to mercury contamination. These examples show that food security in combination with climate change play their own part in

the nutrition transition and altered lifestyle that we see among many Arctic populations.

Two sessions were held on the topic of Food Security and Politics of Food. Gaps in research and in policies regarding food security were identified in many of the presentations. But the overall theme was the contribution that cross-sectional collaborative programs make, as demonstrated by the Healthy Food North program in Canada. Part of the activities of such programs included the promotion of self-efficacy and knowledge about food in many levels of the community. In the session titled “Factors Affecting Food Security,” the research focused on clarifying the determinants of food insecurity. Access to food plays a significant role for the Arctic populations. High fuel costs, lack of knowledge, expenses and quality of food were important factors for community members. According to health staff and community leaders, people are losing the ability to prepare traditional food. Store managers stressed the length of time needed to transport food to Arctic regions and the effect of Arctic climate as key issues. In Nunavut, food insecurity was correlated with household density, distribution of men/women and their age in the household, the level of social assistance, socio-economic indicators, access and consumption of traditional food and regional variation. Speakers highlighted how traditional food and the activities associated with gathering, preparing and cooking a traditional meal were factors that gave the Inuit people a feeling of health and well-being. The “Health Impacts” session dealt with the environmental changes that are taking place presently in the Arctic regions. Changes in temperature were explored, and the impacts of weather changes on human health. Increasing temperature in the Arctic was shown to be related to the mortality of elderly persons and youngsters, whereas coldness increased mortality in general. The last session

of oral presentations was called "How Are We Eating?" and basically treated topics within dietary assessment and diet in relation to various health outcomes. There have been tendencies within the research of nutritional epidemiology to study food patterns instead of the single components in the diet, which has been traditional for many years. Bjerregaard showed that traditional food patterns have both benefits and disadvantages for health that cannot be explained by single nutrients in the diet. It was also shown that the measurement of dietary quality could be a tool to assess the at-risk groups in the population. The research showed that Inuit populations both in Greenland and in Nunavik were shifting to Westernized diets, both in regard to increased sugar intake and in regard to eating habits, for example,, by cutting off fat from store-bought meat, as seen in the study of Bernier et al. Experiences from the Healthy Foods North showed that the population in the Northwest Territories had an inadequate mean daily intake of fibre, calcium, vitamin A, E, and C and folate. The total intake of fruit and vegetables was low as well.

The posters about food security covered multiple aspects. Mead et al. presented a qualitative part in the Healthy Food North program which showed that increasing food knowledge, self-efficacy and intentions in communities of Inuvialuit resulted in healthier cooking methods, which used less fat in the cooking process. Indeed, healthy food was obtained more frequently when self-efficacy was encouraged in the community. It was found in another study that iron deficiency was still present among children in some Nunavut communities (Pacey et al.). This complemented Nancarrow et al. whose study found that traditional food can provide the full Estimated Average Requirements (EAR) of many micronutrients including iron. Caribou was found to be the most common food item of traditional food in Nunavut. In the Novosibirsk region of Russia, Simonova et al. showed that the nutrition transition was widespread and the same tendencies were seen in Novosibirsk as in other Arctic regions. The burden of obesity was increasing also in Novosibirsk, since 21% of men and 45% of women were obese and this was an increase over the last decade. Dietary data from Simonova et al. showed that the energy percentage of fat was between 39 and

46 E% where the contribution of N₃ fatty acids from marine food was 1%. Concurrent, the sugar intake was very high, approximately 70–79 g/day, and daily fruit intake very low.

Concluding remarks

Many people living in the Arctic regions still experience food insecurity. If we want to combat food insecurity in the Arctic, it is important to clarify the determinants and underlying causes of food insecurity in order to create optimal strategies. The ofICCH14 sessions on food security clarified determinants and strategies at national, societal and local levels, as well as at household or even individual levels.

Food insecurity in the Arctic is affected negatively by climate change and accumulation of contaminants in the environment and animals. Climate changes seem to threaten not only the environment but also sufficient diet and nutrition, human well-being, physical health, social understanding, and maintenance of norms and traditions in the Arctic societies. This combination of determinants results in multisectorial and multilevel effects in the nutrition transition in the Arctic. Therefore, we need to think in interdisciplinary ways to produce community-based strategies to combat the effects that food insecurity and climate change have upon each other. Much of the research at the ICCH14 presented approaches where knowledge and education is integrated at different levels in the community. Some Arctic regions face the double burden of micronutrient deficiencies (hidden hunger) and, at the same time, obesity and lifestyle diseases. Health education is an instrument in health promotion. No matter what kind of a nutritional problem, education is a tool to improve food intake and health status, leading to better nutritional status of a population.

Education can also take place with the sharing of knowledge between researchers and regions. We need to learn from each other, and my personal opinion is that comparable studies can make a great contribution to the understanding of similarities and differences between regions and the diversity of problems in food insecurity. By sharing knowledge and experiences from the different aspects of nutrition transition, we can increase the chance of combating loss of culture, traditional social understanding and norms related to traditional food.