

Initial observations on the interaction between diet, physical activity and food distribution as they relate to health among reproductive age women in Kullorsuaq Greenland

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Kullorsuaq is a settlement of roughly 450 people in Northern Greenland. It has a growing population and people are very attached to living there. Kullorsuaq has a beautiful school & it is a dry settlement.

Methods for Research



Because of the high levels of reproduction in Kullorsuaq, this project contributes to understanding the factors that influence nutrition and physical activity for women there, as proper nutrition and physical activity are essential for the health of reproductive age women, as well as for the health and development of their children ((WHO/FAO), 2004, Nazni, 2014).

- This research used a socio-ecologic framework to guide the collection of data, so that research addresses the interconnections of individuals, families, culture, community, the environment, and policies
- This project is a masters research project, which is a small piece of a project in Kullorsuaq that uses Community Based Participatory Research practices and is built off of relationships that have been built over time between community members and research team members
- Data collection was done using the following methods:
 - Interviews with reproductive age women in Kullorsuaq
 - Activity monitoring, for the sleeping hours and daily steps of reproductive age women in Kullorsuaq
 - Surveys of food availability and of exercise accessibility in Kullorsuaq
 - (and also in Upernavik, and Ilulissat and Sisimiut for comparison)
 - Interviews with grocery store managers in Kullorsuaq, Upernavik and Ilulissat and with distribution headquarters in Sisimiut
- This presentation will focus on the community, and environmental and policy components

Food Availability in Kullorsuaq

- In April of 2016, the store in Kullorsuaq had no fresh fruits or vegetables; sprouted red onions were the only root vegetable available
- The community advisory board discussed with us concerns about how the community often runs very low on food in the spring, and often runs out of other necessary supplies, including infant formula, dog food and fishing line
- The CAB also presented concerns with the amount of candy, ice cream and sugar rich food eaten in the community-which were some of the products most often purchased

Women's opinions on the Food Environment

- Women reported eating a mix of local and purchased foods, they reported feeling best when they eat traditional Greenlandic food
- Women expressed concern about the food supply in Kullorsuaq in the late spring, as they often run out
- Reproductive age women we interviewed think about food as it impacts their health-but they do not think of it in terms of specific quantity or nutritional breakdown; which is a challenge for data collection and research analysis, but an example of local thinking





Food & Culture in Kullorsuaq

- Eating local foods is an important part of connection to each other and to place
- Many local foods were available in Kullorsuaq, and were consumed by women; like polar cod and wolfe fish and seal
- Gatherings and celebrations included many types of traditional food
- The mindset surrounding food in Kullorsuaq is flexible, teachers stop class at when they want to for meal times and women spoke about eating and feeding their children when they are hungry rather than with specific meal times...
 - (The impact of this approach to eating when traditional foods are replaced by processed foods should be further explored)

Food Distribution

- According to the headquarters manager of the Pilersuisoq's (shops in settlements), food distribution policies were taken from a danish model
 - This means they are constantly playing catch up, rather than working off of policies designed for specifically for Greenland
- Currently, food store management does not have a clear plan for ensuring sufficient supplies year round or a process for deciding which types of foods should be shipped when supplies are low
- In winter months, there are some informal agreements about types of food that should be transported, however....Some shop managers believe only real food items should be sent, while others allow for non nutritious foods like energy drinks to be sent
- Grocery shop managers are often left to try and coordinate with Air Greenland to get foods sent by helicopter in the winter months.
 - Air Greenland prioritizes food shipments after people and after cargo (such as mail)-and food often still arrives spoiled



- **Example:** In Autumn of 2015...the last ship did not make it to Kullorsuaq because of weather
 - There was a shipment of food destined for Kullorsuaq, this shipment of foods was left in Upernavik for Kullorsuaq....but the shipment was left in storage there..and not sold...so potatoes sprouted and some foods went bad...
 - In may of 2016...when weather was better, those foods that had waited for 7 months in Upernavik were sent

Physical Activity for women in Kullorsuaq

- Reproductive age women in Kullorsuaq want to get physical activity and enjoy playing soccer.
- Some of the women have formed a walking group to encourage activity amongst themselves.
- They do not focus on quantifying exercise into intensity level or time spent in activity; they value group activity for the emotional support.
- Women are happy when there is ice to walk out on and that is the easiest time for them to get activity and that is when they feel best
- Reproductive age women report often having to skip physical activity (like community soccer matches) to take care of children and family.





Recommendations for supporting reproductive age women in Kullorsuaq

- Context

- Developing research tools and instruments specifically for Arctic populations and for use by Arctic people to ensure research is contextualized;
- Creating guidelines for grocery shops to inform the decisions about which foods are distributed during the winter months and agreements on how distribution will happen
- Reducing the proportion of high sugar items to other food items available in Kullorsuaq and reducing the amount of sugar in the diet of reproductive age women

- Collaboration

- Food distributors and communities must establish a process for long term planning and storing of foods that results in sufficient food availability year round
- Engage health care providers, school educators, local hunters and shop-keepers to promote a diet that includes local food and de-promotes non-nutritious packaged items—shifting from focus on what is not available-to the healthy foods that are available
- Improving communication between settlements and food distribution headquarters
- Delivery of healthcare recommendations for reproductive age women and for pregnant women that are tailored for life in isolated settlements—presenting realistic options

- Thank you
- Thank you also to the community in Kullorsuaq, especially the women who took part in the research
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- Questions?



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