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Cash Economy and Store-Bought Food Biases in Food Security Assessments of Inuit Nunangat

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ABSTRACT. Researchers, community organizations, and Inuit leaders increasingly question the suitability of methods to assess the prevalence of food insecurity in Inuit Nunangat (the Inuit homeland in Canada). Particularly contentious is the US Department of Agriculture's (USDA) Household Food Security Survey Module (HFSSM). The HFSSM is applied in modified form as part of Health Canada's nationwide Canadian Community Health (CCHS) and Aboriginal Peoples Surveys. The 18-question HFSSM is the primary survey tool used by the Government of Canada to assess food security prevalence. Yet the HFSSM asks only about the affordability of store-bought foods (also termed "market foods" elsewhere in the literature) when collecting data to designate food security status. This is despite communities in Inuit Nunangat having complex dual or mixed food systems, that is, they rely on foods harvested from ancestral lands (country foods) in combination with store-bought foods to sustain mixed cash-subsistence economies and diets. Sourcing country foods requires money for the purchase of equipment and machinery. However, country foods also have numerous access and availability criteria dictated by non-financial factors. In this paper, we explore the problem of the monetary bias (the focus on an individual or household's ability to purchase foods) in the HFSSM and discuss the knock-on effects of using monetary metrics as the sole means of measuring and monitoring food security in dual food environments. We contend that relying on monetary access as a measure presents an incomplete picture of the reality of food insecurity in Inuit Nunangat. Presently, there is little consideration of the nuance of social norms and cultural values that govern dual food systems or the importance of less tangible, non-financial factors that might affect food access (e.g., knowledge of where and how to harvest and of machine maintenance, suitable environmental conditions for travel, conducive harvest regulations, social relationships, ecological stability). Ultimately, this contributes to restricted policy-level understandings of what it means to ensure stable, culturally adequate, and just food systems, and limits self-determination in northern food environments.

Keywords: food security; food sovereignty; nutrition transition; Arctic Canada; food systems; Household Food Security Survey Module; HFSSM

RÉSUMÉ. Les chercheurs, les organisations communautaires et les dirigeants inuits mettent de plus en plus en doute le caractère adéquat des méthodes servant à évaluer la prévalence de l'insécurité alimentaire dans l'Inuit Nunangat (la patrie des Inuits au Canada). Le module d'enquête sur la sécurité alimentaire des ménages (HFSSM) du ministère américain de l'Agriculture (USDA) porte particulièrement à controverse. Une version modifiée du HFSSM est employée dans le cadre de l'Enquête sur la santé dans les collectivités canadiennes (ESCC) et de l'Enquête auprès des peuples autochtones, deux enquêtes d'envergure nationale réalisées par Santé Canada. L'enquête du HFSSM contient 18 questions. Il s'agit du principal outil d'enquête dont se sert le gouvernement du Canada pour évaluer la prévalence de la sécurité alimentaire. Toutefois, les questions du HFSSM ne portent que sur l'abordabilité de la nourriture achetée en magasin (aussi appelée « nourriture du marché » ailleurs dans la littérature) dans le cadre de la collecte de données servant à déterminer l'état de la sécurité alimentaire. C'est le cas même si les communautés de l'Inuit Nunangat ont des systèmes alimentaires complexes doubles, ou mixtes, c'est-à-dire qu'elles utilisent la nourriture récoltée sur les terres ancestrales (la nourriture du terroir) et la nourriture achetée en magasin pour soutenir les régimes et les économies mixtes de vente et de subsistance. La récolte de nourriture du terroir ne se fait pas sans argent pour acheter de l'équipement et de la machinerie. Cependant, la nourriture du terroir est également assortie de nombreux critères d'accès et de disponibilité dictés par des facteurs autres que l'argent. Dans cet article, nous explorons le problème du biais monétaire (l'accent sur l'aptitude d'un particulier ou d'un ménage à acheter de la

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nourriture) entourant le HFSSM et nous discutons des effets indirects de l'utilisation des données monétaires comme unique moyen de mesure et de surveillance de la sécurité alimentaire dans les environnements où coexistent deux systèmes alimentaires. Nous soutenons que le fait de se fier à l'accès monétaire comme outil de mesure dresse un tableau incomplet de la réalité de l'insécurité alimentaire dans l'Inuit Nunangat. À l'heure actuelle, peu de considération est accordée à la nuance des normes sociales et des valeurs culturelles qui gouvernent les deux systèmes alimentaires ou l'importance de facteurs non financiers moins tangibles susceptibles d'avoir une incidence sur l'accès à la nourriture (comme le fait de savoir où et comment faire les récoltes, comment entretenir les machines, quelles sont les conditions environnementales propices aux déplacements, quels sont les règlements favorables aux récoltes, à quoi ressemblent les relations sociales, et la stabilité écologique). Au bout du compte, cela se traduit par la compréhension restreinte des politiques, à savoir ce que signifie l'assurance de systèmes alimentaires justes, culturellement adéquats et stables, et limite l'autodétermination des milieux alimentaires nordiques.

Mots-clés : sécurité alimentaire; souveraineté alimentaire; transition nutritionnelle; Arctique canadien; systèmes alimentaires; Household Food Security Survey Module; HFSSM

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INTRODUCTION

In 2012, the UN General Assembly Special Rapporteur on the right to food, Mission to Canada, stated that "[a] long history of political and economic marginalization has left many [I]ndigenous [P]eoples [in Canada] living in poverty with considerably lower levels of access to adequate food relative to the general population" (UNGA, 2012:16). A decade on, achieving food security in Inuit Nunangat, the homeland of Inuit in Canada, remains a formidable socio-political, cultural, and public health challenge. Although the Government of Canada recognized the right to food in 1976 (through ratifying and bringing into force the International Covenant on Economic, Social and Cultural Rights), almost four decades later, in 2017, approximately 76% of Inuit over the age of 15 living in Inuit Nunangat were food insecure, experiencing either low, very low, or marginal food security (ITK, 2021a). Similarly, the Inuit Health Survey 2007–08 indicated that 34% of households in the region with children between the ages of three and five experienced severe food insecurity, while 36% experienced moderate food insecurity (Egeland, 2009; ITK, 2021a).

The Food and Agriculture Organization of the UN (FAO) defines food security as "a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO et al., 2022:202). Inuit Tapiriit Kanatami (ITK), the national representational organization responsible for protecting and advancing the rights and interests of Inuit in Canada, has adopted this definition and recognizes food security as a social determinant of health alongside factors such as inadequate and crowded housing, poverty, and education (ITK, 2014, 2021a). Nutrient-poor diets and malnutrition arising from food insecurity in Inuit Nunangat have been linked to a range of health and well-being issues, including elevated instances of obesity, anaemia, diabetes, cardiovascular disease, some cancers, poorer mental health, and increased susceptibility to infectious diseases (Chateau-Degat et al., 2010; Anderson, 2015; Fox et al., 2015; Wallace, 2015; Jamieson et al., 2016; Rønn et al., 2017; Little et al., 2021).

Research addressing food security in Inuit Nunangat was popularized in academia in the late 1990s, followed by the formalized measurement of food security by the Government of Canada in the early 2000s through the application of the US Department of Agriculture's Household Food Security Survey Module (HFSSM) (see Lawn and Harvey, 2003, Rosol et al., 2011; Huet et al., 2012; Arrigada, 2017). A broad body of social and health sciences scholarship has since developed to identify causal factors and outcomes associated with food insecurity in the region (e.g., Ford and Berrang-Ford, 2009; Egeland et al., 2011; Ford and Beaumier, 2011; Beaumier et al., 2015; Gilbert et al., 2021; Little et al., 2021). Elevated household food insecurity in Inuit Nunangat has been attributed to the exorbitant price of store-bought foods (also often referred to as market foods) and a greater cost of living in the region relative to southern communities, challenges associated with the harvesting of country foods (culturally and nutritionally significant foods derived from lands and waters close to communities), and wider phenomena interwoven with contemporary and historical colonialism (Ford et al., 2013, 2019; Council of Canadian Academies, 2014; ITK, 2017; Mosby and Galloway, 2017; Kenny et al., 2018a; St-Germain et al., 2019; Willows et al., 2019).

Federal policies of the 1950s and 1960s aimed at ending the semi-nomadic livelihoods of Inuit were particularly damaging to Inuit traditional food environments and foodways (pathways between food and culture and tradition). Stemming from a desire to assert sovereignty over northern lands and forcibly apply the apparatus of the state, the federal government pushed families into permanent, static, and dramatically sedentary communities. Inuit were moved hundreds of kilometres as part of the High Arctic relocation in the early 1950s. Inuit children were also forcibly enrolled in residential schools for the sole purpose of assimilating them into a settler society (Tester, 2006; Debicka and Freedman, 2009; Salter, 2019). This led to the disruption of livelihoods that were once predicated on semi-nomadic migration according to seasonal animal movements, and increased reliance on store-bought foods and costly mechanized forms of transport, such as the snowmobile, the latter being adopted

to ensure that country foods could still be harvested (Damas, 2002; Pavri, 2005; Ready and Power, 2018). Over time, these factors have also altered dietary profiles and resulted in a nutrition transition in Inuit Nunangat whereby a greater proportion of foods consumed are now nutrient-poor, sugar- and preservative-rich, and purchased from stores (Council of Canadian Academies, 2014; Kenny et al., 2018a; St- Germain et al., 2019).

Despite considerable academic research and investment in federal, regional, and community-based initiatives to tackle what has become known as the northern food crisis, for stakeholders, the appropriate definition of food insecurity and effective steps to alleviate food insecurity in Inuit Nunangat are far from settled issues. The concept of food security remains dynamic, nuanced, and multifaceted and is contested in both academic and institutional discourses in Canada and the wider international community (Ready, 2016; Naylor et al., 2023a). As early as the year 2000, there were over 200 definitions of food security in academic and policy literatures (Hoddinott, 1999), and researchers and Indigenous organizations have questioned the applicability of such a nebulous concept and its measurements to Indigenous Peoples (Power, 2008; Elliot et al., 2012; Harder and Wenzel, 2012; ICC-Alaska, 2015; Ready, 2016; Naylor et al., 2023b). Some critics argue that ineffectual and divergent food policies in Inuit Nunangat and elsewhere, which have often failed to capture the complexity of Indigenous food systems, have made it harder to reach consensus on what truly constitutes food security (Grochowska, 2014; ITK, 2017; Ford et al., 2019; St-Germain et al., 2019). In 2015, commenting on the issue of food security, the Inuit Circumpolar Council (Alaska) (ICC-Alaska, 2015:4) noted: "[w]e have often heard people within academia, policy and management speak to us of nutritional value, calories and money needed to purchase food. All of this is important, but not what we are talking about when we say food security." Instead, the Inuit Circumpolar Council underlined the need to recognize food security as fundamentally intertwined with the entire Arctic ecosystem. In their comments, they emphasized complex and nuanced factors that affect food security, including cultural foodways, language, the role of self-governance in food systems, and Indigenous knowledge systems and spirituality. All of these factors are prerequisites for harvesting foods, they argued, and each links to modern-day economic systems (ICC-Alaska, 2015).

This article expands on current critiques of the conceptualization and measurement of food security in the context of its application to Inuit Nunangat (e.g., Harder and Wenzel, 2012; ICC-Alaska, 2015; Ready, 2016). The inspiration and arguments in this manuscript arose from conversations and discussions with representatives from ITK and Nutrition North Canada; territorial, regional, and community food security co-ordinators and government delegates; academics; and community members whilst attending and facilitating the event Moving from Understanding to Action on Food Security in Inuit Nunangat at the ArcticNet Annual Scientific Meeting in December 2022 (see Naylor et al., 2023a, b). Based on these discussions and the wider literature, here we contend that the uncritical labelling of food insecurity, when classified through a monetary lens, often at the expense of understanding northern food systems as socially dynamic and complex, has influenced the development of federal food strategies for the region. This approach has ultimately limited academic and policy-level understandings of what it means to ensure stable, culturally adequate, and just food systems, and limited Inuit self-determination in diverse food environments.

THE DEVELOPMENT OF FOOD SECURITY

The FAO definition of food security, as adopted by the Government of Canada (GC, 1998), was first developed at the 1996 World Food Summit. In turn, the 1996 definition, along with its more recent 2022 iteration (quoted above), evolved from a concept that entered the academic and political vernacular following an earlier 1974 World Food Summit. There, participants established the first of what would become four dimensions, or pillars of food security: availability. The notion of food availability focused on the ability to physically supply and produce sufficient volumes of food for global markets. Specifically, the 1974 World Food Summit stated that food security was the "availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices" (FAO, 1975:14).

With time, researchers began to critique the focus of food security and food systems on the global scale**.** For example, Amartya Sen's (1981) entitlements theory pointed out the failure of a world food supply hypothesis in light of the 1973 Ethiopian and 1974 Bengal famines (see also Devereux, 2001). Such resistance to the focus on supplies for global markets led to a transition towards a more intra-national, household-level view of factors affecting food security in individuals and families. From availability, attention turned to access, that is, the ability of people to purchase food. The contemporary FAO definition of food security echoes this transition. Alcock (2009) pinpointed one specific text behind this new focus on monetary access: a World Bank (1986) report entitled, Poverty and Hunger (1986). Alcock argued that by distinguishing between chronic and transitory food insecurity, the report was influential in developing a more temporal focus on food security. The report also identified a lack of household purchasing power as a key cause of food insecurity (FAO, 2003). For Alcock (2009), the report's publication was the inflection point after which academic and institutional perspectives on food security conceptualized an individual or household's ability to access food as directly dependent on their income, as opposed to their social networks or other factors not tied to retail markets.

Later, through other world food forums and meetings of the FAO Committee on World Food Security, researchers and policymakers in this area added three more pillars to the food security concept—availability, utilization, and stability—thereby developing the modern definition of food security (see FAO, 1996, 2009a). However, in discourse and research addressing food security, economic access remains the most prevalent and measured pillar among institutions (Coates, 2013). More recently, two further pillars, sustainability and agency, have also been considered, but they have yet to receive formal approval by the FAO (FAO et al., 2022; see also Clapp, 2022). Using this modern conception, organizations and governments gauge individual, community, regional, or national food security based on their health or fragility in relation to the four pillars:

> Availability: [W]hether or not food is actually or potentially physically present, including aspects of production, food reserves, markets and transportation, and wild foods.
> Access: [W]hether or not households and individuals have sufficient physical and economic access to that food.
> Utilization: [W]hether or not households are maximizing the consumption of adequate nutrition and energy.
> Stability: [T]he condition in which the whole system is stable, thus ensuring that households are food secure at all times.
>
> FAO et al., 2022:202

MONETARY BIAS IN MEASURING FOOD SECUTRITY IN CANADA

The current definition and conceptualization of food security, as per the FAO, has formed the basis for creating assessments that can quantify and categorize food security status. In Canada and Inuit Nunangat, this is achieved through the HFSSM, adopted by the Government of Canada in 1995 and integrated into a number of surveys, such as the annual Canadian Community Health Survey and the Aboriginal Peoples Survey (both administered by Statistics Canada), in addition to occasional community-level studies by independent researchers (e.g., Lawn and Harvey, 2004; Ford and Berrang-Ford, 2009; Guo et al., 2015). The HFSSM contains a 10-item adult and eight-item child scale, including questions addressing issues such as food access, rate of consumption, and anxiety over food availability (see Health Canada, 2012). If, like the World Bank, those evaluating food security want to determine levels of purchasing power, and if food security is conceptualized as an issue of monetary access, then the HFSSM can be an excellent tool. The very first question makes specific reference to purchasing foods from stores (i.e., buy more). "You and other household members worried that food would run out before you got money to buy more. Was that often true, sometimes true, or never true in the past 12 months?" (FSC_Q010: Question 1 on the 2017 Canadian Community Health Survey HFSSM; Health Canada, 2018). All subsequent questions within the survey identify factors such as "because there wasn't enough money" and "couldn't afford enough" as reasons for cutting the size of meals, skipping meals, or experiencing anxiety around food access (Health Canada, 2007:47, 2018). The framing of these questions, after the first, without further clarification is an example of question order bias, where answers to earlier questions may skew responses to the later ones (Tourangeau et al., 2020). This framing also reveals that the HFSSM is not attempting to tap into other money-related variables that may affect food procurement in Inuit Nunangat (e.g., purchase of gasoline or equipment to go hunting in a subsistence economy). Nor does the HFSSM ask about the availability (one of the four pillars); the frequency with which foods can be procured (beyond in the last 12 months) (i.e., stability pillar); whether the types of foods bought are of sufficient cultural or nutritional significance; or how these foods are subsequently used in the household (i.e., the utilization pillar) (see Health Canada, 2012, 2018). In terms of classification, the most common means of quantifying food security prevalence when using HFSSM data is through the Health Canada methodology, which determines the degree to which an individual is deemed food secure or food insecure—marginal, moderate, or severe—based upon affirmative, negative, or non-responses to the monetary access questions in the HFSSM (Health Canada, 2020).

Due to the emphasis of the HFSSM on monetary access to store-bought food, its suitability to examine, within Inuit and First Nations communities in Canada, the entire range of pillars that comprise the FAO's definition of food security has become a point of contention (Harder and Wenzel, 2012; Ashby et al., 2016; Ready, 2016; Naylor et al., 2023b). Ready (2016), in a study assessing the utility of a modified version of the HFSSM, suggests that a failure to ask about food beyond affordability or having enough money means that data derived from the HFSSM do not adequately reflect the complexities and cultural nuance of contemporary Inuit food environments. Other food security surveys expressly designed to measure alternative pillars of food security, or identify root causes, are rarely used, if at all, in Inuit Nunangat (e.g., the WFS Food Consumption Score, which assesses food quality), which lends credence to critiques of the reliance on the HSFFM. Although the interdisciplinary research program called PROOF, currently considered the pre-eminent voice in food security in Canada, now defines food insecurity as "inadequate or insecure access to food due to financial constraints," the organization did not include data from the territories (Yukon, the Northwest Territories, and Nunavut) in its most recent 2021 food security reports (PROOF, 2022a, b:4). Instead, it directed readers to other relevant and more context-based resources, such as the upcoming Inuit-led *Qanuippitaa?* National

Inuit Health Survey and the Inuit Nunangat Food Security Strategy (ITK, 2021a). These resources, in addition to those produced by the Inuit Circumpolar Council and the Qikiqtani Inuit Association, place more emphasis on self-determination and Inuit rights, including the principle of food sovereignty as factors contributing to food security. The Qikiqtani Inuit Association defines food sovereignty as "the right to nutritious locally-sourced [country] food" (QIA, 2019:7). Food sovereignty is an emerging concept within discourses on northern food environments. However, the concept has yet to be meaningfully incorporated into food security measures applied throughout Inuit Nunangat.

WHY IS A STORE-BOUGHT FOOD BIAS IN THE HFSSM PROBLEMATIC?

As argued above, the HFSSM primarily assesses the ability of a household to purchase foods from stores. However, Inuit food systems stand in stark contrast to the more eurocentric and westernized means of food procurement (those predicated on financial transactions) that the HFSSM is designed to assess. Researchers and food security organizations often describe Inuit food environments as mixed or dual, where monetary access to store-bought foods comprises just one of two main components (Wenzel, 2019). The other involves harvesting and sharing culturally and spiritually significant country foods from lands, ice, and marine ecosystems proximal to communities. Means of distributing country foods are often also at odds with those of store-bought foods. The sale of country foods is contentious in some communities (Ford et al., 2016: Searles, 2016), and ethics governing the sharing of country foods are complex, often striking a balance among cultural expectation, kinship, need, and reciprocity (Condon et al., 1995; Ready, 2017; Ready and Power, 2018). According to Gombay (2005:418), involvement in this aspect of the dual food system reflects and preserves "a whole set of moral principles about the world that contribute to, and reflect, people's construction of place" (see also Datta, 2021). Involvement in the subsistence economy itself is also often a costly endeavour. Past research has identified the considerable upfront costs associated with machinery and ongoing costs relating to gasoline, naphtha (camp stove fuel), spare parts, and oil and ammunition as substantial obstacles to Inuit participation in harvesting (Fawcett et al., 2018; Naylor et al., 2021a). In this sense, wider strategies aimed at poverty reduction may be a baseline condition for healthy, sustainable sharing or even productivity. However, there are also substantial non-monetary resources required for the subsistence economy, including hunters with sufficient knowledge and time, environmental conditions that are suitable to safe travel, conducive harvest regulations, and healthy animal populations (Pearce et al., 2011; Natcher et al., 2016; Snook et al., 2020; Kourantidou et al., 2021; Naylor et al. 2021a, b; Gilbert et al., 2021; Ready and Collings, 2021).

Besides the cultural and spiritual significance of country foods, a recent set of dietary profiles developed from data in the *Qanuippitaa?* 2017 Nunavik Inuit Health Survey emphasized the value of these foods from a nutrition and dietetics perspective. Based on a sample of 1176 Inuit living in the region, Aker et al. (2022) found that 36% had either a country-food dominant (12.6%) or diverse consumption (store-bought and country foods) (23.4%) diet. Research by Kenny et al. (2018b), based on data from 2095 respondents to the 2007–08 Inuit Health Survey, established that country foods accounted for 23%–52% of dietary protein among adults and comprised a principal source of their macronutrient intakes of iron, niacin, and vitamins D, B6, and B12. Yet, there is currently no widely applied method or means of assessing food security in Inuit Nunangat that fully incorporates country foods access and availability.

A point of progress and notable exception to the monetary bias in food security surveys came in the form of the *Qanuilirpitaa*? 2017 Nunavik Inuit Health Survey, which will also form the basis of the planned Inuit Nunangat–wide *Qanuippitaa?* National Inuit Health Survey. When developing the survey, investigators were aware of the shortcomings of the first question of the HFSSM (and subsequent questions). In response, in their food security module, they went beyond the focus on financial resources available for food to include a social-relationships perspective, encouraging participants to think beyond cash. They also explored, as food security determinants, the importance of both the ability to harvest and equipment access:

> In the last year since... (''interviewer to say month of the survey'') last year ... How often did you worry that the food in your house would run out before you had the resources to get more (e.g. money to buy food, equipment to hunt, fish or gather food, social connections to get food from etc)?
>
> Identify your use of the following strategies when you don't have enough food to eat in your household …
>
> [a] I go hunting, fishing, or gathering country food myself
> [b] Someone other than me in my house goes hunting/fishing/gathering country food
> [c] Go to family or friend's house to eat/ask for food from family or friends
>
> (Questions PHFS_S9_Q2, PHFS_S9Q11A, PHFS_S9_Q11E, and PHFS_S9Q11F [combined by authors]: *Qanuilirpitaa?* Nuanvik Inuit Health Survey, 2020; 289, 291; see also Furgal et al., 2021 for a discussion on methodological adaptations of HFSSM questions for the *Qanuilirpitaa?* Nuanvik Inuit Health Survey)

Research evidence from as far back as the early 2010s showed the importance, in food security assessments in

Inuit Nunangat, of conceptualizing resources as more than simply cash. For example, studies showed that homes with sufficient harvesting equipment and a hunter (i.e., an individual with knowledge and skills to harvest) were less likely to experience food insecurity (Ford and Berrang-Ford, 2009; Huet et al., 2012). Similarly, more recent work by BurnSilver et al. (2016) and Baggio et al. (2016) has highlighted the importance of less tangible social ties in resource-sharing networks and the role of high-productivity households when assessing the robustness of mixed-economy communities in Alaska.

The distribution and sharing patterns of harvested country foods are, however, linked to diverse and complex kin relationships in northern communities, and possible relationships between sharing and food security are multifaceted, requiring further research (Dombrowksi et al., 2013; Ready, 2017; Little et al., 2023). The relative omission of how country foods influence Indigenous food environments in discourses and measures of food security has led some academics to question the degree to which "etic concepts such as food insecurity relate to the lived experience of food insecure [Indigenous] people" (Elliot et al., 2012; Harder and Wenzel, 2012; Ready, 2016:277). For some time, the FAO (2009b:9) has recognized that, "considering its 'cultural dimensions', food security for Indigenous peoples goes far beyond the mere satisfaction of needs." Despite this, concepts such as food sovereignty and self-determination have gained limited traction in the Government of Canada's approach to food security policy in Inuit Nunangat.

POLICY IMPLICATIONS OF THE HFSSM AND FUTURE DIRECTIONS

The figures and metrics developed as part of the HFSSM and associated food security studies do have some use. The HFSSM can provide a broad-brush indication of food scarcity and how this may vary by communities within the same food environments. In addition, a body of literature examining food poverty and food pricing highlights that, in Nunangat, healthy, nutrient-rich foods are typically more costly than ultra-processed, non–nutrient-dense equivalents, and that the latter are consumed with a greater frequency as a result (Sharma et al., 2010; Akande et al., 2015; Kenny et al., 2018a; Little et al., 2021). Therefore, understanding to what extent a household is struggling to afford food from stores may allow some inferences to be made about their dietary intake.

Data from surveys have also been used by a number of Indigenous rights groups as a means of positive empowerment, as they can provide an opportunity to expropriate a tool and a language, legitimated and used by the governments of Canada and the US, to evidence the structural violence of colonialism, the ineffectiveness of current federal food policies, and the need for greater self-determination. An example of this can be seen in the recent 2021 Inuit Nunangat Food Security Strategy, which leverages food security data from the 2017 Aboriginal Peoples Survey to argue for action. In a preface to the strategy, Natan Obed, president of ITK, describes the state of food security in Inuit Nunangat as "a shameful human rights violation that Canada is legally obligated to remedy" (Obed in ITK, 2021a:2; see also NFSC, 2014). Following the strategy's development, ITK has used it to lobby the federal government for funds to aid in its implementation.

The Inuit Nunangat Food Security Strategy Implementation Plan (ITK, 2022a) outlines an intent to measure food security through the Inuit-led *Qanuippitaa* National Inuit Health Survey. That survey will approach food security from a resource perspective (as opposed to one of monetary access). Much like the *Qanuippitaa?* Nunavik Inuit Health Survey, the national survey will underscore the importance of northern food sovereignty by focusing on actions to address food security as a holistic phenomenon, rather than a metric measured by survey data.

Developed by Inuit for Inuit and rooted in community priorities, the Implementation Plan provides a roadmap for concrete and achievable steps to combat the root causes of food insecurity, as understood through lived experience and quantitative and qualitative research. Examples of steps within the plan include i) assessing the efficacy of current social assistance programs and, where lacking, creating poverty reduction measures; ii) fostering increased economic self-reliance in Inuit Nunangat to combat the high costs of harvesting, living, and store-bought foods; iii) ensuring that harvesting and participation in country food economies can be a viable livelihood; and iv) addressing the issue of supply chains in store-bought foods, which are increasingly affected by climate change and which result in costly goods, in part due to capitalist, profit-driven models of consumption (ITK, 2022a).

Despite widespread support among community members and researchers and specialists for the strategy and its implementation plan, and a commitment from the Government of Canada to support the strategy through the Inuit-Crown Partnership Committee, no funding for the strategy has been provided to date (ITK, 2022b). In its 2022 pre-budget submission to the government of Canada, ITK stated that "an initial investment of $100 million over four years for the implementation of the Inuit Nunangat Food Security Strategy would ensure that Inuit-driven food security solutions can effectively address the priorities of our communities" (ITK, 2021b:3). Similarly, in their 2023 budget, ITK reiterates that, despite a commitment for federal funds and support, "no resources have been dedicated to date" and makes the same request for $100m to implement the strategy (ITK, 2022b:5).

Notwithstanding the utility of food security statistics derived from the HFSSM for speaking truth to power when highlighting the need for systemic change, the HFSSM is limited in its ability to identify root causes. Therefore, the overreliance of the federal government on data from food security surveys in policy development has implications for

Inuit self-determination and for dismantling access barriers to culturally appropriate foods and food sovereignty. Deaton and Scholz (2022) observe an upstream problem with using data from surveys with a monetary bias: these impact the direction of assessments of interventions emerging from the 2019 federal Food Policy for Canada. They argue that programs intended to address the action areas laid out in the policy will likely measure their efficacy (and impact on rates of food security) based on the income-related Health Canada HFSSM. This might explain funding disparities between interventions focused on store-bought foods versus those that seek to reform the food environment and foodways of the north or increase access to country foods: a monetary bias in the measurement of food security leads to policies that reinforce that bias (Deaton and Scholz, 2022). Thus, the former tend to receive more support. By extension, we must ask to what degree current policy approaches make interventions that are effective at reducing actual food insecurity (as defined by Inuit) as opposed to measured food security.

As discussed above, a monetary bias in food security has resulted in a long-term focus, of interventions in the North, on the costs of store-bought foods. This is part of a wider trend in settler-Indigenous relations globally whereby, as per Green (2015), settler governments attempt to placate calls for decolonization and increased self-determination through economic investment, while simultaneously bypassing any meaningful concession of jurisdiction or control. In a recent analysis of food policy interventions in Labrador by Bowers et al. (2020) that mapped the pillars of food security against food programmes, initiatives focusing on access were the most dominant, being addressed in nine of the 25 policies identified. Pertinent examples of access policies might include the federal Food Mail Program of the late 1960s, and its subsequent replacement in 2011 by the Nutrition North Canada program. Both of these programs aimed to make store-bought foods more affordable, either by reducing the shipping costs of foods or by attempting to reduce their actual costs in stores through a subsidy. Despite a 2022–23 budget of Cdn$131.3 million, considerable controversy remains as to whether Nutrition North has been effective in its goal of making perishable foods more accessible and reducing food insecurity (Galloway, 2014; Ford et al., 2019; St-Germain et al., 2019; Naylor et al., 2020). Nutrition North operates on a market competition–driven model, despite an oligopoly of food retailers operating in many northern communities. Many researchers now critique the program for consolidating power in the hands of food retailers, as opposed to the communities, and point out a lack of community consultation in program development, arguing that both features stifle the prospect of Inuit self-determination and governance over northern food environments (Galloway, 2014; Chin-Yee and Chin-Yee, 2015).

Recently there has been an increase in federal initiatives aiming to improve or sustain country food harvests. Many of these retain a focus on economic access through subsidies, such as the Nunavut Harvester Support Program, the Inuvialuit Harvesters Assistance Program, or the Inuit Nunangat-wide Harvester Support Grant administered through Nutrition North Canada. Support grant eligibility and the proportion of costs covered varies by region and grant, often providing either a portion of the upfront costs associated with hunting (e.g., toward the cost of a new snowmobile) or funds for ongoing costs (e.g., gasoline, naphtha). For instance, under the Harvester Support Grant, harvesters can claim up to 50% of the costs associated with travelling to a hunting area (CIRNAC, 2020). However, notwithstanding the importance of grants for sustaining the subsistence economy, income generated from harvesting is both inconsistent and infrequently sufficient to overcome major economic and social inequities in northern communities (Natcher et al., 2016; Gilbert et al., 2021; Ready and Collings, 2021). Expansion of the Nutrition North program stands in stark contrast to the comparatively minimal economic support by federal funders for more comprehensive poverty alleviation strategies. Yet the latter strategies may be the baseline condition for continued development of the subsistence economy, healthy, sustainable sharing, and northern community economies more widely.

Moreover, while harvest support programs are predicated on cost-benefit analyzes, a limited understanding of which factors result in the success of harvesters complicates subsidy-based approaches. Research has demonstrated how intangible factors, such as Indigenous knowledge about hunting, time spent on the land, social relationships and sharing, household demography, and species preference complicate associations between cash-necessitating variables, such as gasoline use or equipment ownership, and hunting productivity and success (Collings, 2009; Ready, 2018; Naylor et al., 2021a; Hilleman et al., nd.). This is not to suggest that the subsidies associated with offsetting the costs of harvesting are not essential and necessary for a dual food system (Natcher et al., 2016; Naylor et al. 2021a, b). The long list of intangible factors does, however, show the rigid limitations of an approach based on subsidies when deciding which programs should get funding. The heavy focus on subsidies could also explain why such sparse funding exists for land camps (a land-based Inuit and First Nations approach to knowledge production and sharing) or other education programs that focus on nuanced factors affecting harvesting and greater self-determination and control over food environments (Kenny et al. 2018a). Dissatisfaction with past subsidy programs and a previously limited focus on country foods in funding initiatives generally led to suggestions by the Qikiqtani Inuit Association in 2019 that a more effective policy intervention to increase rates of country food production and sharing in communities would be to make hunting a paid profession (QIA, 2019). A less formalized version of this has been enacted with success for some time in Nunavik through the Nunavik Hunters Support Program, where harvesters can be paid per day for involvement in

community-organized hunting activities (Kishigami, 2000; Gombay, 2009). Further research is needed to evaluate such programs to determine if they are more effective at reducing food insecurity in comparison to economic subsidies, their wider implications for poverty reduction in communities, and their possible effect on the dynamics of country food-sharing networks.

CONCLUSION

This commentary has examined and evaluated the monetary bias in food security assessments in Inuit Nunangat. We argue that a focus on the affordability of store-bought food in food security measures in the region has important negative repercussions on Inuit food sovereignty and self-determination. First, monetary bias skews the measurement and understanding of the degree of food insecurity in household and communities. Second, in communities undergoing nutrition transition, it helps shape and lend priority to food security interventions that are biased towards buying foods from stores. Although the central thesis of this work is that monetary bias in the measurement of food security leads to policies that reinforce that bias, we want to acknowledge that other factors also contribute to this tendency. These factors include the social and cultural nuances within the dual food systems in Inuit Nunangat, the complex relationship between the subsistence economy and money, and the unwillingness or inability of federal food policy to embrace or account for these. We have focused on Inuit Nunangat, principally due to the level of comment and discourse on the issue of food security in the region. However, our argument has implications for understanding policy approaches and food security measurement in dual food systems across Canada and North America. Indeed, the monetary bias in food security assessment deafens policymakers to the voices of Indigenous Peoples when these Peoples assert that hegemonic conceptualisations and metrics do not represent their lived realities and food environments. There is a critical need to take on board these calls and to work with communities to develop more appropriate, comprehensive measures and understandings of what policymakers mean when examining food security. Presently, the federal government is failing to amend measures of food security to improve their applicability for Indigenous peoples or change how food security initiatives are appraised to better reflect the nuance of northern food environments. Whilst there is widespread understanding that food security, as either a measured or more nebulous concept, is a persistent issue in Inuit Nunangat, funding for Inuit-led and Inuit-determined strategies and steps to deal with the root causes of the crisis remain scarce. Despite this, Inuit organizations and communities are now taking the initiative to develop measures for, and monitor their own, food security based on a desire to have self-determined, culturally appropriate research and policy on their territories.

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