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Discussion Paper on Household and Individual Food Insecurity

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Introduction

Food security is a broad concept, encompassing issues related to the nature, quality, and security of the food supply as well as issues of food access. As described in Canada's Action Plan on Food Security (1998), food security "exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life". As food insecurity has come to be recognized as a public health problem and a serious social problem in Canada, there have been calls for assessment and monitoring activities to appraise the scope of the problem and evaluate interventions. A number of measurement activities have occurred at the local, regional and national levels, but there remains no coordinated plan for monitoring food insecurity nationally or provincially.

This paper presents an examination of issues pertaining to the inclusion of direct and indirect indicators of food insecurity in a national nutrition monitoring system, focusing on individual- and household-level food insecurity that arises in the context of financial resource constraints. Here the term, food insecurity, is used to denote the limited, inadequate, or insecure access of individuals and households to sufficient, safe, nutritious, personally acceptable food both in quality and quantity to meet their dietary requirements for a healthy and productive life. The focus on limited, inadequate or insecure access to food due to financial resource constraints reflects the recognition that, while financial resources are only one of a range of factors that operate to determine individuals' food consumption patterns, they are the primary barrier to food access among low income groups.

While much remains to be understood about the nature and severity of food insecurity and the short- and long-term consequences of this phenomenon, the concept of food insecurity has now been clearly elucidated. It can be understood most simply as deprivation in the basic need for food. Importantly, the experience of food insecurity is not static but dynamic in nature, defined by a temporal sequence of events and experiences. Graded levels of severity have been defined that appear generalizable across groups. Less severe food insecurity is characterized by qualitative compromises in food selection and consumption and possibly anxiety related to food sufficiency. As resources become increasingly depleted, food insecurity is characterized by quantitative compromises in food intake and the attendant physical sensation of hunger. At its most severe stage, food insecurity is experienced as absolute food deprivation (i.e., not eating at all). Across this continuum of severity, food insecurity also has defined psychological and social manifestations.

Why Monitor Food Insecurity in Canada?

The profound deprivation that underlies experiences of food insecurity suggests that this condition is a matter of public health concern and a social problem worthy of monitoring in its own right. Food insecurity is also important to monitor as a risk condition for other health concerns. The dietary manifestations of chronic and severe food insecurity clearly pose threats to nutritional health and well-being. In addition, there is emerging evidence that food insecurity can have deleterious social and psychological consequences for those directly affected by this problem. Through the systematic monitoring of food insecurity, the incidence and prevalence of this condition can be identified, and the characteristics of individuals and

households who experience food insecurity can be defined. Furthermore, through such monitoring the relationship between household-level problems of food insecurity and changing social and economic conditions, policies, and intervention programs can be understood. As such, monitoring food insecurity would lay a valuable foundation for the development of policies and programs to address this problem.

The fact that food insecurity denotes a dimension of nutritional vulnerability that is different from but complementary to traditional dietary assessments means that this problem must be monitored in its own right if we wish to understand it. The extent and severity of food insecurity cannot be readily inferred from other nutritional monitoring activities. However, the measurement of household or individual-level food insecurity in tandem with other measures of nutritional vulnerability would importantly facilitate the identification of population subgroups whose nutritional health is potentially compromised because of financial resource constraints.

Measuring Food Security

The measurement of food insecurity in affluent, western nations has been the focus of considerable research in recent years. In particular, there have been marked advances in the development of **direct indicators** to measure household food insecurity at a population level. Four direct measures of food insecurity employed in recent, major studies in North America and for which measurement properties have been documented are reviewed in this paper: the food sufficiency status question; the Community Childhood Hunger Identification Project instrument; the Radimer/Cornell instrument; and the Food Security Core Module. All of these instruments

have been designed to be administered to the household head or person most responsible for food and food provision in the household, and to provide insight into household food insecurity. All four instruments have been developed and used extensively in the U.S., but all four have also found their way (in whole or in part) onto Canadian surveys and studies of food insecurity. Each has built upon the accomplishments of its predecessors. The most recent instrument, the Food Security Core Module, provides a brief, well-designed, and thoroughly calibrated measure of severity that would be suitable for use on Canadian population surveys with minimal additional work.

Given the substantial resources required to obtain direct measures of food insecurity in the population and the intrusiveness of these measures, it is worthwhile to also consider the use of **indirect indicators** of food insecurity. Three classes of indirect indicators are examined in this paper: indicators of financial resource constraints that could be reasoned to predispose households to food insecurity or the risk of it; indicators of resource augmentation strategies that suggest food insecurity (e.g., food bank usage); and indications of programmatic activities at the community level that could be interpreted to suggest the presence of local problems of food insecurity. Monitoring poverty, welfare rates, or food bank usage could yield some insight into problems of food insecurity, but the usefulness of these indicators is presently limited by the paucity of population-based data on the relationship between them and the prevalence and severity of food insecurity.

Recommendations for Further Work

From this examination of conceptual and methodological issues related to the measurement of food insecurity in Canada, a number of knowledge gaps are identified. Further work in five specific areas is recommended to support the inclusion of food insecurity in a national nutrition monitoring and surveillance system.

1. An appraisal of the levels of severity and the dimensions of food insecurity most relevant to monitor in relation to policies and programs in Canada.

Conceptually, food insecurity is not a simple binary variable, but a multidimensional array of behaviours and perceptions. The potential consequences of food insecurity are also wide ranging and multidimensional. In undertaking monitoring activities, it is important to consider what dimensions and what degrees of severity of food insecurity are most relevant to the Canadian context. The Food Security Core Module captures levels of severity associated with quantitative food deprivation - a condition that may be considered the most severe manifestation of food insecurity. Monitoring such extreme deprivation can be seen as a moral imperative because such hardship is unconscionable in a country as affluent as ours. However, it should be recognized that this level of food insecurity is likely to be much less common in our country than less severe manifestations. Chronic compromises in dietary quality, for example, are likely to be more prevalent and may have more serious implications for health and well-being over the long term than periodic episodes of absolute deprivation. Similarly, it could be

argued that the broader social implications of chronic food insecurity related to social exclusion and alienation are relevant to population health irrespective of whether they are associated with measures of quantitative food deprivation.

Prior to the inclusion of food insecurity as part of a nutrition monitoring system in Canada, it is imperative that the broader goals of this monitoring be established. These goals will dictate the needs for measurement. They will also lay a foundation for the identification of other sociodemographic and behavioural factors that must be measured in concert with food insecurity in order to identify vulnerable subgroups.

2. Research to further develop direct measures of food insecurity relevant to nutrition monitoring goals in Canada.

Although an extensive body of research on food security measurement now exists, there may be a need for some additional research to tailor existing measures and develop new measures to meet the specific priorities identified for direct measurement in this country. In particular, research may be required to i) confirm the suitability of the Food Security Core Module for use here and establish what categorical measures of household food security drawn from this scale will be most relevant for monitoring purposes; and ii) develop additional direct measures of food insecurity at the household or individual level to extend the understanding that can be gleaned from the Food Security Core Module. To maximize the contribution of these initiatives, it is imperative that any new research

be grounded in a thorough understanding of the present literature and that new undertakings clearly build upon existing work.

Other areas of research that are required to support the appropriate application and interpretation of a direct measure of food insecurity for monitoring and program evaluation include studies to determine how sensitive particular aspects of food insecurity are to changes in household resources and develop methods to assess the frequency and duration of particular experiences of food insecurity. Given the differential nature of individuals' food experiences within households, further research is also needed to characterize the experiences of individual members in households defined by varying levels of food insecurity. Importantly, this research must move beyond present work that differentiates between women and children's experiences to elucidate age- and gender-related differences more fully.

3. Research to facilitate the comparison of new, more comprehensive measures of food insecurity to other direct indicators that have been included on previous population surveys.

Questions on food insecurity have already been included on several population surveys (e.g., the Canadian Community Health Survey, the National Population Health Survey, the National Longitudinal Survey of Children and Youth, and selected provincial

nutrition surveys). To facilitate fuller interpretation of these data and enable systematic comparison of previous survey findings with more comprehensive measures of food insecurity on future population surveys, some empirical work is required to determine the relationship between individual survey items and a systematically-derived set of scaled indicator questions.

4. Research to provide an empirically-based framework within which to interpret key indirect indicators of household food insecurity.

Despite the recent development of a direct indicator of household food insecurity with known measurement properties that is suitable for inclusion in population surveys, there are likely always to be situations in which indirect indicators of food insecurity are needed (e.g., at the regional and community levels where national survey samples may be insufficient to provide good estimates). Thus it would be important to conduct sufficient analytic work to provide an interpretive framework for at least three major indirect indicators of food insecurity: income-based measures of poverty, welfare rates, and food bank usage. A valuable foundation for the interpretation of these indicators could be gained now through the focussed analysis of existing population-level survey data.

5. Research to provide an empirical foundation upon which to interpret measures of household food insecurity in Canada.

Despite the tremendous advances in food security research over the last decade, much remains to be understood about the short- and long-term consequences of food insecurity as it arises and is experienced at the individual and household level in Canada. Research is also needed to better understand the causes of food insecurity in this country and to elucidate the relationships between household-level problems of food insecurity and changing social and economic conditions, social policies, and intervention programs. A broad range of research into the causes and consequences of varying levels of severity and chronicity of food insecurity among Canadian households would importantly inform the interpretation of monitoring efforts.