

BASIC INCOME GUARANTEE

SERIES | JUNE 2017

IMPLICATIONS OF A BASIC INCOME GUARANTEE FOR HOUSEHOLD FOOD INSECURITY

By Dr. Valerie Tarasuk

Research Paper No. 24

NORTHERN
POLICY INSTITUTE

INSTITUT DES POLITIQUES
DU NORD



Who We Are

Some of the key players in this model, and their roles, are as follows:

Board: The Board of Directors sets strategic direction for Northern Policy Institute. Directors serve on operational committees dealing with finance, fundraising and governance, and collectively the Board holds the CEO accountable for achieving our Strategic Plan goals. The Board's principal responsibility is to protect and promote the interests, reputation, and stature of Northern Policy Institute.

President & CEO: Recommends strategic direction, develops plans and processes, and secures and allocates resources to achieve it.

Advisory Council: A group of committed individuals interested in supporting, but not directing, the work of Northern Policy Institute. Leaders in their fields, they provide advice on potential researchers or points of contact in the wider community.

Research Advisory Board: A group of academic researchers who provide guidance and input on potential research directions, potential authors, and draft studies and commentaries. They are Northern Policy Institute's formal link to the academic community.

Peer Reviewers: Ensure specific papers are factual, relevant and publishable.

Authors and Research Fellows: Provide independent expertise on specific policy areas as and when needed.

Standing engagement tools (general public, government stakeholders, community stakeholders): Ensure Northern Policy Institute remains responsive to the community and reflects THEIR priorities and concerns in project selection.

President & CEO

Charles Cirtwill

Board of Directors

Martin Bayer (Chair)
Michael Atkins
Pierre Bélanger
Thérèse Bergeron-Hopson (Vice Chair)
Lucy Bonanno
Terry Bursey
Dr. Harley d'Entremont

Alex Freedman
Dr. George Macey (Vice Chair & Secretary)
Dawn Madahbee Leach
Hal J. McGonigal
Gerry Munt
Emilio Rigato (Treasurer)
Dr. Brian Tucker

Advisory Council

Kim Jo Bliss
Don Drummond
John Fior
Ronald Garbutt
Jean Paul Gladu
Audrey Glibeau
Peter Goring
Frank Kallonen

Seppo Paivalainen
Allyson Pele
Duke Peltier
Kathryn Poling
Peter Politis
Tina Sartoretto
Bill Spinney
David Thompson

Research Advisory Board

Dr. John Allison
Dr. Hugo Asselin
Dr. Randy Battocchio (Chair)
Dr. Stephen Blank
Dr. Gayle Broad
George Burton
Dr. Robert Campbell

Dr. Iain Davidson-Hunt
Dr. Livio Di Matteo
Dr. Morley Gunderson
Dr. Anne-Marie Mawhiney
Leata Rigg
Brenda Small
J.D. Snyder
Dr. Lindsay Tedds

This report was made possible through the support of our partners Lakehead University, Laurentian University and Northern Ontario Heritage Fund Corporation. Northern Policy Institute expresses great appreciation for their generous support but emphasizes the following: The views expressed in this commentary are those of the author and do not necessarily reflect the opinions of the Institute, its Board of Directors or its supporters. Quotation with appropriate credit is permissible.

Author's calculations are based on data available at the time of publication and are therefore subject to change.

© 2017 Northern Policy Institute
Published by Northern Policy Institute
874 Tungsten St.
Thunder Bay, Ontario P7B 6T6

ISBN: 978-1-988472-47-8

Contents

- WHO WE ARE _____ 2
- ABOUT THE AUTHOR _____ 3
- INTRODUCTION _____ 4
- WHAT IS FOOD INSECURITY? _____ 6
- FOOD INSECURITY IN ONTARIO _____ 7
- A POTENT SOCIAL DETERMINANT OF HEALTH AND HEALTH CARE SPENDING _____ 8
- WHO IS FOOD INSECURE? _____ 10
- THE LINK TO INCOME _____ 12
- B.I.G. AS A SOLUTION TO FOOD INSECURITY? _____ 13
- THE EFFECTS OF INCOME VERSUS PROGRAMS TO SUBSIDIZE BASIC NEEDS _____ 15
 - I) AFFORDABLE HOUSING _____ 15
 - II) FOOD PROGRAMS _____ 15
 - III) IMPROVED WAGES _____ 16
- TARGETED VERSUS UNIVERSAL INTERVENTIONS _____ 16
- CONCLUDING COMMENTS _____ 17
- REFERENCES _____ 18

About the Author **Dr. Valerie Tarasuk**



Valerie Tarasuk is a professor in the Department of Nutritional Sciences and Dalla Lana School of Public Health at the University of Toronto.

Much of Dr. Tarasuk’s research is focused on food insecurity. Over the past two decades, she has conducted a number of studies to determine the scope and nature of household food insecurity in Canada, identify the household characteristics and contextual factors associated with vulnerability to this problem, and examine the impact of community responses to problems of food insecurity. Most recently, she has led PROOF, an interdisciplinary research program funded by the Canadian Institutes of Health Research and designed to identify effective policy approaches to reduce household food insecurity in Canada. This research has established food insecurity as a potent social determinant of health and health care costs, but also demonstrated that both the prevalence and severity of household food insecurity in Canada are highly sensitive to policy decisions that impact household finances.

INTRODUCTION

Household food insecurity—the inadequate or insecure access to food due to financial constraints—affects almost one in eight households in Ontario. The prevalence has been stable over the past decade, despite the Province’s investments in a poverty reduction strategy. Given the abundance of evidence that household food insecurity erodes individuals’ health, effective interventions are needed to address this problem.

In this paper, I review what is known about food insecurity in Ontario, considering the socio-demographic patterning of this problem and its relation to household income. I then examine the evidence suggesting that a basic income guarantee (B.I.G.) would be an effective policy intervention to reduce household food insecurity among those most vulnerable to this problem.

The case for a B.I.G is contrasted to what is known about the potential for alternative strategies such as an increased minimum wage or living wage, more affordable housing, and public food support programs to have a meaningful impact on household food insecurity.



WHAT IS FOOD INSECURITY?

Food insecurity, as the term is applied in the Canadian context, refers specifically to the inability of individuals and households to access adequate food because of financial constraints. Although often discussed in the context of much broader definitions of *food security*¹, household food insecurity is indicative of a state of material hardship that goes beyond problems of food access. Because the inability to afford such a basic necessity as food is tightly aligned with other financial hardships (Loopstra and Tarasuk 2013), food insecurity is a highly sensitive measure of material deprivation.

Food banks have long been the public face of food insecurity, and problems of food insecurity, or *hunger*, have often been equated with food bank use in Canada. However, with the systematic measurement of food insecurity on national population surveys, it is clear that food bank statistics are a very poor indicator of food insecurity in our communities (Loopstra and Tarasuk 2015). Fewer than one quarter of food insecure households in Canada appear to seek charitable food assistance.² While those who do use food banks are very likely to be severely food insecure (Loopstra and Tarasuk 2012), statistics on food bank usage grossly underestimate the prevalence of food insecurity and changes in food bank usage are not a sensitive indicator of changes in food insecurity rates (Loopstra and Tarasuk 2015).

Since 2004, household food insecurity has been assessed on the Canadian Community Health Survey (CCHS)³ using the Household Food Security Survey Module (HFSSM) (Health Canada 2007). This is a standardized, validated, 18-item scale of severity, developed by the

U.S. Department of Agriculture to monitor food insecurity in that country. The experiences of food insecurity captured on this module range from *worry about running out of food before there is more money to buy more*, to *the inability to afford a balanced diet*, to *going hungry, missing meals*, and in extreme cases, *not eating for a whole day because of a lack of food and money for food*. Questions differentiate between the experiences of adults and children in households because of an abundance of research indicating that when families are struggling to cope with extreme financial constraints, adults will often deprive themselves of food as a way to free up scarce resources for children.

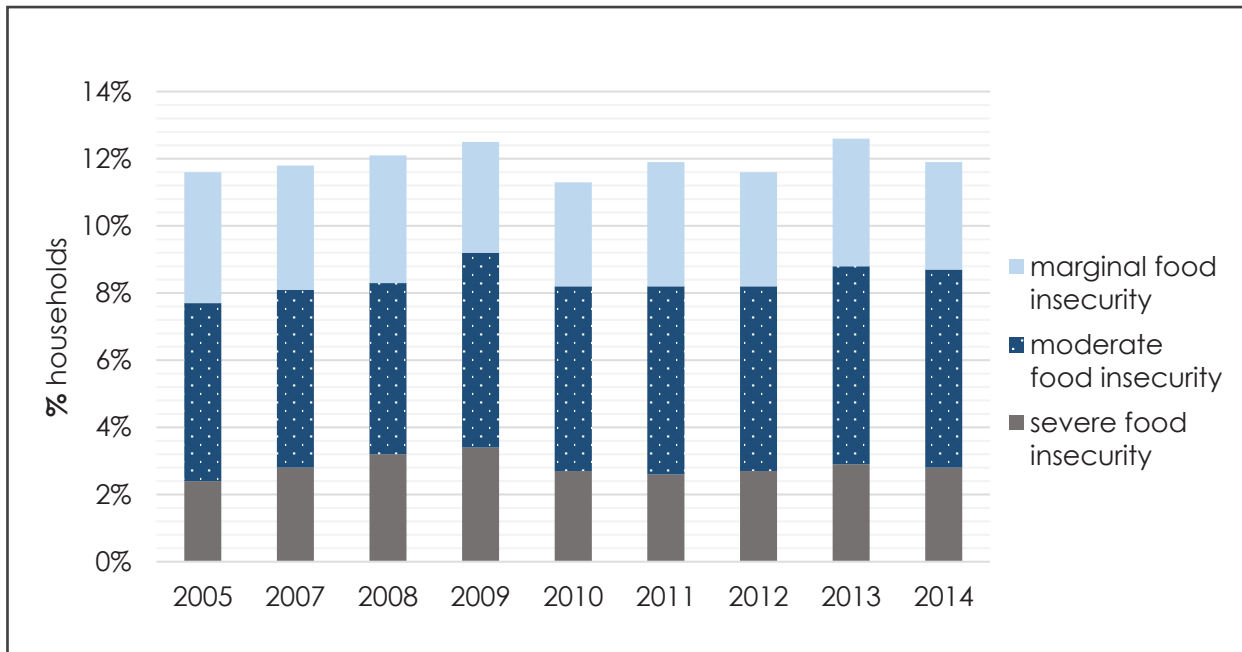
Household food insecurity status is determined based on the number of positive responses to the 18 questions that comprise the HFSS.⁴ Food secure households are those who gave no indication of any income-related problem of food access. Those who are marginally food insecure have reported some concern or problem of food access over the past 12 months, most commonly indicating worry about running out of food. Households classified as moderately food insecure have reported compromises in the quality and/or quantity of food consumed among adults and/or children. Those classed as severely food insecure have reported more extensive compromises, including reduced food intake among adults and/or children because of a lack of money for food.

Household food insecurity is indicative of a state of **material hardship** that goes beyond problems of food access...

FOOD INSECURITY IN ONTARIO

Since monitoring began, the prevalence of food insecurity among households in Ontario has vacillated between 11.3 percent and 12.5 percent (Figure 1). While these numbers are similar to those observed nationally (Tarasuk, Mitchell, and Dachner 2014), they indicate that a substantial proportion of Ontario households are struggling to put food on the table for themselves and their families. Even more concerning is the fact that food insecurity rates have not diminished over a period when the Province has been actively engaged in poverty reduction (Government of Ontario 2008; Government of Ontario 2010).

Figure 1. Prevalence and severity of household food insecurity in Ontario, 2005–2014



Source: Statistics Canada, Canadian Community Health Survey 2005, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014.

1 | Food security is commonly defined as the state that “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” (Agriculture and Agri-Food Canada 1998).

2 | See Loopstra and Tarasuk (2012) for a detailed examination of the reasons why low-income families report not using food banks.

3 | Each cycle of CCHS comprises a population-representative survey of approximately 130,000 individuals 12 years and older, excluding individuals who were full-time members of the Canadian Forces or lived on First Nations Reserves, Crown Lands or in some remote regions of Quebec. The survey for 2005–2006 was concentrated in 2005 but since 2007, CCHS cycles have been run over two consecutive years. The application of household weights developed by Statistics Canada, designed to take into account the sampling design and patterns of nonresponse, yields a population-representative sample of Canadian households for each survey year.

4 | A copy of the questions that comprise the HFSSM, and a detailed description of the coding methods applied to classify households as food secure, marginally food insecure, moderately food insecure or severely food insecure can be found in the PROOF reports on Household Food Insecurity in Canada (Tarasuk, Mitchell, and Dachner 2016)

A POTENT SOCIAL DETERMINANT OF HEALTH AND HEALTH CARE SPENDING

Food insecurity is a strong predictor of poorer physical and mental health, independent of other well-established social determinants of health such as income and education (Gundersen and Ziliak 2015). It is a potent marker of nutritional inequity in Canada (Kirkpatrick and Tarasuk 2008; Kirkpatrick et al. 2015), but the associations between food insecurity and health extend far beyond nutritional vulnerability. Among Canadian children, food insecurity has been linked to poorer health status and the subsequent development of a variety of chronic health conditions, including asthma and depression (Kirkpatrick, McIntyre, and Potestio 2010; McIntyre et al. 2012). Among adults, household food insecurity has been associated with multiple indicators of poorer physical and mental health, including greater probability of having been diagnosed with multiple chronic diseases (Anema et al. 2009; Bhargava et al. 2012; Bronte-Tinkew et al. 2007; Che and Chen 2001; Davison, Marshall-Fabien, and Tecson 2015; Heflin, Siefert, and Williams 2005; Huddleston-Casas, Charnigo, and Simmons 2009; McLeod and Veall 2006; Nakhaie and Arnold 2010; Nelson et al. 2001; Seligman et al. 2007; Seligman, Laraia, and Kushel 2010; Seligman and Schillinger 2010; Siefert et al. 2001; Stuff et al. 2004; Tarasuk et al. 2013; Vozoris and Tarasuk 2003). Household food insecurity poses barriers to disease management for individuals with chronic conditions and heightens their chances of negative disease outcomes (Aibubla et al. 2016; Anema et al. 2013; Cox et al. 2016; Ford 2013). The relationship between household food insecurity and health reflects a gradient, with more severe food insecurity associated with greater likelihood of negative health outcomes (Carmichael et al. 2007; Laraia et al. 2006; Parker et al. 2010; Seligman, Bindman, Vittinghoff, Kanaya, and Kushel 2007; Tarasuk, Mitchell, McLaren, and McIntyre 2013; Whitaker, Phillips, and Orzol 2006).

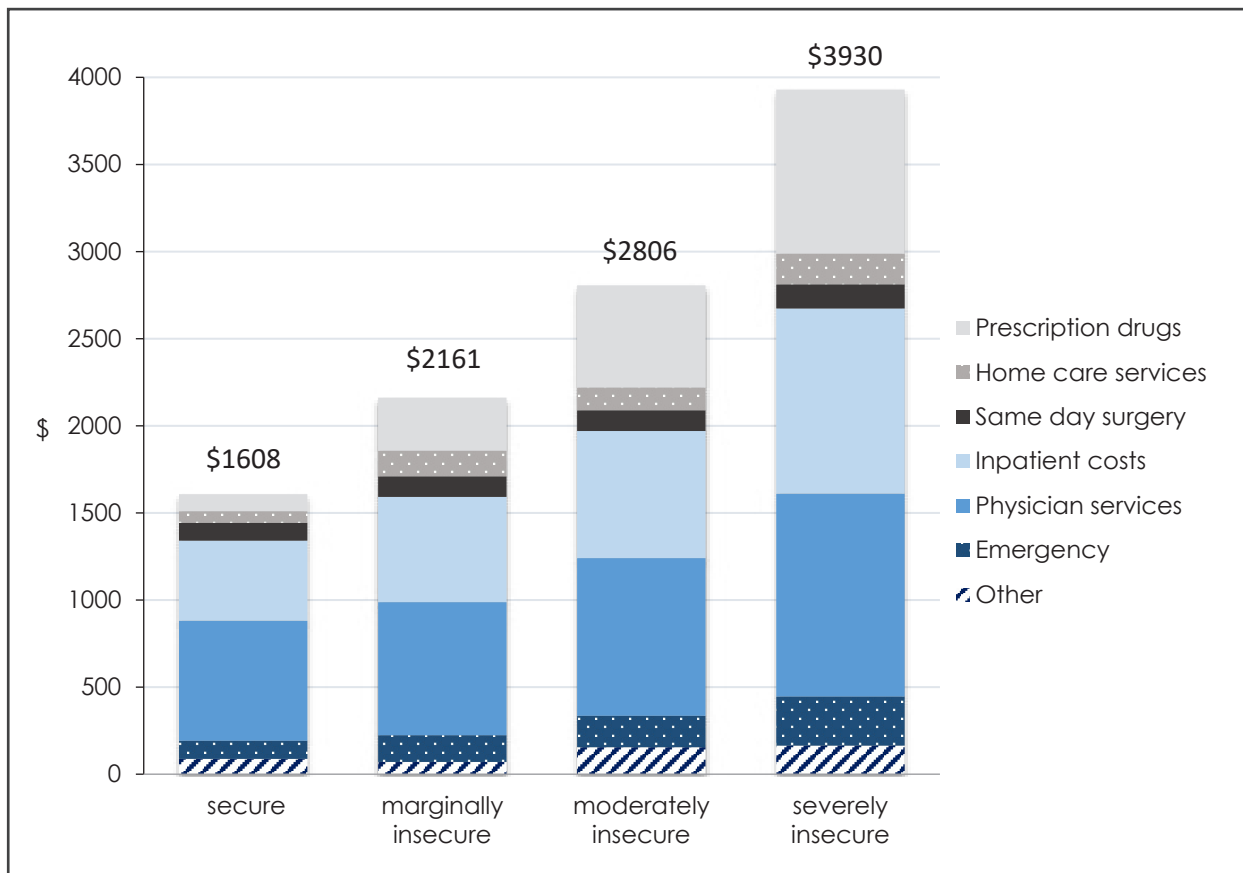
The consistent monitoring of food insecurity on CCHS since 2005, coupled with the linkage of CCHS data for Ontario with administrative data on health care at the Institute for Clinical and Evaluative Sciences (ICES), has enabled rigorous analyses of the effects of food insecurity on

health care use and costs in Ontario. The two studies published to date suggest that food insecurity is taking a serious toll on health care spending in the province.

Tarasuk et al. (2015) examined the relationship between the household food insecurity status of working-aged adults in Ontario over a 12-month period and their direct health care costs over this period (Tarasuk et al. 2015). The total costs incurred by adults who used health care rose systematically with the severity of food insecurity (Figure 2). After adjusting for socio-demographic factors associated with health and health care usage, total health care costs of adults in marginally food insecure households were, on average, 16 percent higher than the costs for adults in food secure households; 32 percent higher for adults in moderately food insecure households; and 76 percent higher for those in severely food insecure households when compared with adults in food secure households. These differences rose to 23 percent, 49 percent and 112 percent respectively when the costs of prescription drugs covered by the Province for social assistance recipients were included. The latter differences reflect the full cost of food insecurity among working-aged adults for Ontario's health care system.

...total health care costs of adults in severely food insecure households were **76 percent higher** than the costs for adults in food secure households...

Figure 2. Average health care costs per person incurred over 12 months for Ontario adults (18–64 years of age), by household food insecurity status.



Source: Figure based on data presented in (Tarasuk, Cheng, de Oliveira, Dachner, Gundersen, and Kurdyak 2015).

Fitzpatrick et al. (2015) examined the effects of food insecurity on health care use in the context of a study designed to identify socio-economic characteristics that would predict the probability that individuals would become high-cost health care users in the next 5 years. Their study was motivated by evidence that the top 5 percent of health care users in Ontario account for two thirds of total health care expenditures in the province (Fitzpatrick et al. 2015). Excluding individuals who were already high-cost users, they looked at what predicted who would become a high cost user in the next five years, considering a broad range of individual, household, and neighbourhood socio-economic factors, while adjusting for baseline clinical factors associated with health care needs. Food insecurity emerged as a stronger predictor of who would become a high-cost health user than any of the other socio-economic factors examined (Fitzpatrick et al. 2015).

WHO IS FOOD INSECURE?

Although household food insecurity status is determined through a series of questions about food access and consumption, this problem does not relate to people's food shopping skills or cooking abilities (Huisken, Orr, and Tarasuk 2016). There is no evidence that food insecurity can be mitigated by programs designed to strengthen budgeting and cooking skills (Chenhall 2010; Engler-Stringer and Berenbaum 2007; Loopstra and Tarasuk 2013; Tarasuk 2001). There is also no evidence that food insecurity is a problem of people's proximity to supermarkets (Kirkpatrick and Tarasuk 2010) or that the use of a home or community garden for food protects low-income families from food insecurity (Huisken, Orr, and Tarasuk 2016; Loopstra and Tarasuk 2013). In short, food insecurity is not a problem of food retail access or poor food skills, but rather a problem of people's abilities to afford the food they need.

The socio-demographic characteristics associated with food insecurity in Canada suggest that this is very much a problem of social and economic disadvantage. Multivariate analyses of population survey data have repeatedly documented an inverse association between the odds of food insecurity and household income, as well as the elevated odds of food insecurity among households reliant on social assistance (compared to those reliant on salaries and wages); renting rather than owning their dwelling; being lone-parent female-led; and being of Aboriginal status (Che and Chen 2001; Li, Dachner, and Tarasuk 2016; McIntyre et al. 2015; McIntyre et al. 2016; McIntyre, Bartoo, and Emery 2012; Olabiyi and

McIntyre 2014; Tarasuk and Vogt 2009; Vozoris and Tarasuk 2003). Households reliant on seniors' income sources have lower risk of food insecurity when compared to those in the workforce (Li, Dachner, and Tarasuk 2016; Tarasuk and Vogt 2009). The odds of food insecurity also move with education, with greater likelihood of food insecurity among households headed by individuals without high school completion or who began but did not complete a post-secondary program (Che and Chen 2001; Ledrou and Gervais 2005; Li, Dachner, and Tarasuk 2016; McIntyre, Wu, Fleisch, and Emery 2015; McIntyre, Bartoo, and Emery 2012; Olabiyi and McIntyre 2014; Vozoris and Tarasuk 2003). Interestingly, being a recent immigrant is not associated with higher risk of food insecurity, and some studies even suggest that it is protective against food insecurity (Li, Dachner, and Tarasuk 2016; Olabiyi and McIntyre 2014; Sriram and Tarasuk 2016). The risk associated with refugee status is unknown, however.

While multivariate analyses such as those summarized above identify household-level predictors of food insecurity, a fuller understanding of what it means to design interventions that address this problem comes from examining the distribution of various socio-demographic characteristics in our population by food insecurity status. A key distinction that emerges from such an examination is how different income sources relate to the problem. Households reliant on social assistance⁵ are most at risk of food insecurity, with 62.7 percent in Ontario reporting some degree of food insecurity in 2014, but they do not comprise the majority

In short, food insecurity is **not a problem** of food retail access or poor food skills, but rather a problem of people's **abilities to afford the food** they need.

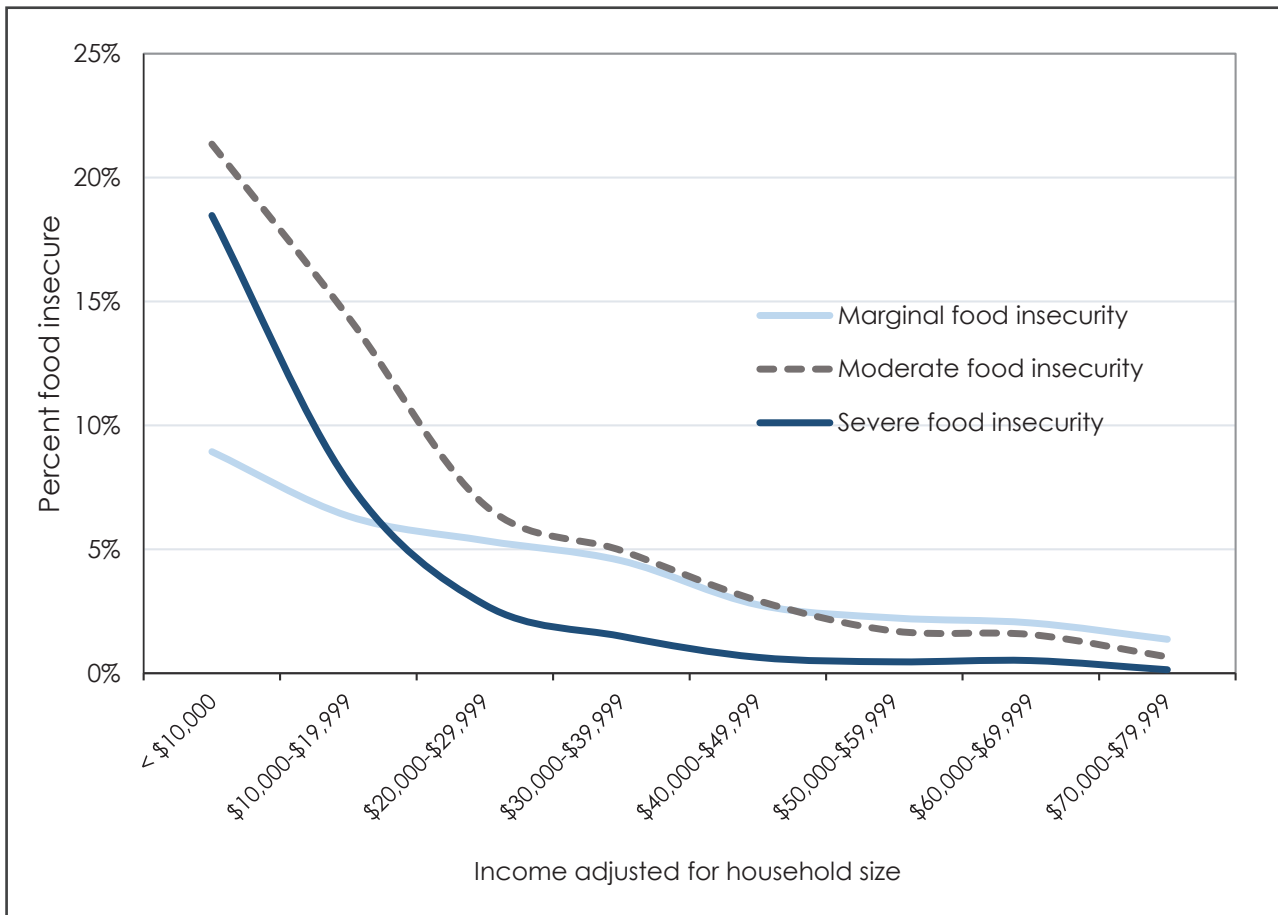
of food insecure households in the province (Tarasuk, Mitchell, and Dachner 2016). In 2014 in Ontario, 58.9 percent of food insecure households were reliant on wages and salaries (Tarasuk, Mitchell, and Dachner 2016). The reason for this is that a vast majority of households in our country (and province) are reliant on wages and salaries. Although the risk of food insecurity is much lower for people in the workforce than for those on social assistance (i.e., about 11 percent of Canadian households reliant on salaries and wages were food insecure in 2014), they comprise over half of all households that are food insecure. These are people who are in the workforce but are unable to earn enough money to cover their basic needs, because they are reliant on low-waged jobs, possibly with short-term and/or part-time employment (McIntyre, Bartoo, and Emery 2012). Food insecure households reliant on employment incomes are more likely to include earners reporting multiple jobs and higher job stress (McIntyre, Bartoo, and Emery 2012). The risk of food insecurity is also greater among multi-person households reliant on the earnings of only one or two members (McIntyre, Bartoo, and Emery 2012). This implies that in order to reduce the prevalence of food insecurity in Ontario, it is necessary to address both the extraordinarily high vulnerability of social assistance recipients in the province and the vulnerability of low-income households reliant on employment incomes.

A second important clarification that arises from considering the distribution of socio-demographic characteristics by household food insecurity status is how household composition relates to this problem. In Canada, food insecurity is more prevalent among households with children under 18 years of age than households without children, and this pattern persists in Ontario. In 2013-14, an estimated 17 percent of children under the age of 18 in Ontario were living in households that reported some degree of food insecurity (Tarasuk, Mitchell, and Dachner 2016). Single-parent female-led households are at higher risk of food insecurity than any other group.⁶ However, just as the majority of Canadian households do not include children, most food-insecure households do not include children under 18. In fact, the largest single group are unattached individuals (Tarasuk, Mitchell, and Dachner 2016). Such distinctions are important to consider when thinking about the kinds of public policy interventions needed to address food insecurity. Poverty reduction initiatives targeted to households with children (e.g., the Ontario Child Benefit—the cornerstone of Ontario's Poverty Reduction Strategy) miss a large proportion of households who are highly vulnerable to food insecurity.

THE LINK TO INCOME

As illustrated in Figure 3, the probability of a household being food insecure rises as household income⁷ falls. The curves differ markedly across the three levels of food insecurity, reflecting the graded nature of the association between severity of household food insecurity and income. Severe food insecurity is almost non-existent among higher income households, but the prevalence rises sharply as adjusted household income falls below \$30,000, highlighting the extreme material deprivation that characterizes this condition.

Figure 3. Relationship between food insecurity and household income



Source: Statistics Canada, Canadian Community Health Survey 2013–2014.

7 | The values for household income displayed in this figure have been adjusted for household size to depict the relationship between food insecurity and household income across all household configurations.

Also evident in Figure 3 is the fact that the relationship between household income and household food insecurity status is imperfect: there are food secure households with low incomes and food insecure households with what would seem to be quite high incomes. The absence of a one-to-one relationship between income and the risk of food insecurity reflects the complexity of household material conditions being captured in the measure of food insecurity. Studies of the conditions that give rise to household food insecurity in Canada suggest that this problem is a function of the adequacy and the security of income (Emery, Fleisch, and McIntyre 2013; Ionescu-Iltu, Glymour, and Kaufman 2015; Li, Dachner, and Tarasuk 2016; Loopstra, Dachner, and Tarasuk 2015; McIntyre, Dutton, Kwok, and Emery 2016), coupled with the availability of assets, most notably home ownership (McIntyre, Wu, Fleisch, and Emery 2015).

The curvilinear relationship between income and food insecurity suggests that modest changes in the incomes of very low-income households can have large effects on their probability of food insecurity. The few Canadian studies that have examined what precipitates changes in the food insecurity status of individual households confirm that improvements in income are central to improvements in household food insecurity. Relatively modest increases in income have been found to lessen severe food insecurity among low-income families (Loopstra and Tarasuk 2013; McIntyre 2003). Similarly, persistent or recurrent food insecurity has been shown to be a problem of chronically inadequate incomes (Loopstra and Tarasuk 2013; McIntyre, Pow, and Emery 2015).

B.I.G. AS A SOLUTION TO FOOD INSECURITY?

The potential for a B.I.G. to reduce the prevalence and severity of household food insecurity comes from its effect on the lower end of the income distribution charted in Figure 3. The strong curvilinear relationship between income and food insecurity implies that a significant reduction in food insecurity prevalence can be achieved by improving the financial resources of households currently with very low incomes. Empirical evidence to support this contention comes from a small, but growing body of research examining the effects of specific policy interventions on household food insecurity prevalence and severity.

One of the best illustrations of the impact that substantial improvements to the material circumstances of impoverished households can have on their risk of food insecurity comes from the Poverty Reduction Strategy launched in Newfoundland and Labrador in 2006 (Province of Newfoundland and Labrador 2014). Unlike Ontario's Poverty Reduction Strategy, which was heavily focused on reducing the prevalence

of child poverty, the strategy mounted by the Newfoundland and Labrador government was designed to tackle both the breadth and depth of poverty in the province. Although food insecurity reduction was not an explicit goal, the strategy had a profound effect on food insecurity rates in the province (Loopstra, Dachner, and Tarasuk 2015). Among the policy reforms of particular salience were those to social assistance. Income support payments were increased by 5 percent in 2006 and indexed to inflation in subsequent years (until 2012). The earnings exemption was increased, allowing clients to retain a higher proportion of earned income before their income support was reduced. In 2011, the shelter rate and liquid asset levels were also increased. The Province also increased health benefits and the special diet allowance for social assistance recipients, and in 2009, raised the low-income tax threshold, eliminating and reducing provincial income tax for the lowest and low-middle income households respectively. In addition, the Province introduced measures to

decrease and subsidize rents, and increase the stock of affordable housing. In tandem with this cascade of policy reforms, the prevalence of food insecurity among households who received income from social assistance fell, dropping from 59.9 percent in 2007 to 33.5 percent in 2012. While it is impossible to determine the specific effects of individual elements of Newfoundland and Labrador's poverty reduction action on household food insecurity, the cumulative impact of the changes was to improve the material circumstances of social assistance recipients in ways that manifested in improved food security.

Additional evidence of the sensitivity of household food insecurity to policy interventions that affect household finances comes from the modest reduction in prevalence documented among families with young children following the introduction of the Universal Child Care Benefit (Ionescu-Iltu, Glymour, and Kaufman 2015), and the small but significant decrease in household food insecurity among social assistance recipients in British Columbia following a one-time increase in social assistance (Li, Dachner, and Tarasuk 2016). It is important to note that the improvement in food security following the increase in benefits in British Columbia was eventually eroded by inflation because social assistance benefits in that province - as in most other provinces, including Ontario - are not indexed to inflation.

The most direct examination of the effect of a B.I.G. on food insecurity rates in Canada comes from Herb Emery and Lynn McIntyre's extensive analysis of the effects of the guaranteed annual income provided to Canadian seniors on food insecurity prevalence (Emery, Fleisch, and McIntyre 2013; Emery, Fleisch, and McIntyre 2013; McIntyre, Dutton, Kwok, and Emery 2016). Drawing on data from several cycles of the CCHS, they recently conducted a detailed examination of moderate and severe food insecurity rates among unattached, non-widowed individuals 55

group were reliant on income assistance, but from age 65 onward, the primary source of income was seniors' benefits—Old Age Security and the Guaranteed Income Supplement. Among individuals 55 to 59 years of age, 43 percent were food insecure; for those 65 years and older, the rate was 16 percent. Multivariate analyses, taking into account a wide spectrum of potentially confounding factors, confirmed that the probability of food insecurity among this group dropped in half at age 65. Importantly, these analyses also determined that the decline was a function of both the amount and the stability of the income delivered through seniors' benefits.

The research summarized here points to the responsiveness of household food insecurity in very low-income households to policy interventions that improve household finances. The centrality of inadequate, insecure incomes to problems of household food insecurity in Canada is well documented, and there is considerable evidence that when income constraints are lifted, vulnerable households become more food secure. The observed improvements in household food security are consistent with research into the effects of expanded child benefits on household expenditure patterns that revealed low-income families used the additional income to better meet basic needs (Jones, Milligan, and Stabile 2015). An important advantage of a B.I.G. over more targeted benefits (e.g., the Canada Child Benefit or Ontario Child Benefit), however, is the inclusiveness of this strategy. Food insecurity affects a diversity of households, including those with and without children, those reliant on wages, and those on income assistance. Having the adequacy of one's income be the sole criterion for the receipt of a B.I.G. optimizes the potential for this intervention to reach those most vulnerable to food insecurity.

...receipt of a B.I.G. optimizes the potential for this intervention to reach those most vulnerable...

to 75 years of age with annual personal incomes of \$20,000 or less (McIntyre, Dutton, Kwok, and Emery 2016). Prior to 65, most individuals in this

THE EFFECTS OF INCOME VERSUS PROGRAMS TO SUBSIDIZE BASIC NEEDS

One of the arguments against a B.I.G. is that similar, if not greater benefits can be achieved with greater cost-effectiveness through employment supports or programs designed to improve low-income households' access to basic needs. Studies of the effects of various interventions on the prevalence and severity of household food insecurity in Canada provide valuable empirical evidence of the potential for such indirect, in-kind strategies to alleviate serious problems of material hardship. Below, interventions to improve the availability of affordable housing, subsidize food costs, and increase minimum wages are briefly appraised in terms of their effect on household food insecurity.

i) Affordable housing

About one quarter of households who rent their dwellings are food insecure, and nearly two thirds of food insecure households are renters (Tarasuk, Mitchell, and Dachner 2016), raising questions about the extent to which the provision of more affordable rental housing might mitigate this problem. Affordable housing is typically defined as 30 percent of income going to housing, but our research indicates that achieving this ratio does not guarantee sufficient funds remaining for food. In fact, low-income families in subsidized housing are no less likely to be food insecure than those in market rental accommodation (Kirkpatrick and Tarasuk 2011). A recent examination of food insecurity among a national sample of households living in subsidized housing revealed that 51 percent were food insecure, with almost one in four reporting moderate food insecurity, and one in five being severely food insecure (Fafard-St Germain and Tarasuk 2017). A key determinant of food insecurity among this sample was income, suggesting that the level of housing subsidy provided was insufficient to compensate for the very low incomes of households deemed eligible for these programs. While housing subsidies undoubtedly improve the stability and security of housing for eligible individuals and families, these programs do not ensure household food security. This finding suggests that strategies to increase the stock of affordable housing are unlikely to improve household food security unless they also ensure that the amount of money left after rent is sufficient for households to meet other basic needs.

ii) Food programs

Many community-based food programs have been launched to alleviate or mitigate household food insecurity, providing fertile ground for examination of the impact of food-based interventions on this problem. The primary response to food insecurity in Canada has been food banks and other charitable food assistance programs, but studies of these efforts indicate that they lack the capacity to alter households' food insecurity (Loopstra and Tarasuk 2012; McIntyre et al. 2012; Tarasuk et al. 2014). There is also no evidence that community gardens, alternative food retail systems (e.g., the Good Food Box), and programs designed to improve food preparation and shopping skills have a significant effect on household food insecurity status (Engler-Stringer and Berenbaum 2007; Hamelin, Mercier, and Bedard 2008; Huisken, Orr, and Tarasuk 2016; Loopstra and Tarasuk 2013; Tarasuk 2001). Despite other possible benefits for participants, these initiatives lack the capacity to alter the extreme material deprivation that defines household food insecurity.

Recently, it has been suggested that food insecurity might be alleviated by the introduction of US-style public food assistance programs⁸. There has been extensive research into the effects of the Supplemental Nutrition Assistance Program (SNAP, formerly known as the Food Stamp Program), the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), and the National School Lunch

8 | In a white paper issued before the last election, the Ontario Progressive Conservative Party proposed the introduction of a food benefit for social assistance recipients, delivered on a debit card and only usable at designated food outlets (Ontario Progressive Conservative Party 2013). The objective was "to ensure that the portion of monthly benefits intended for essential food items is set and cannot be used on other expenses".

Program in the U.S. on food insecurity rates among target groups, with several studies documenting positive effects (Black et al. 2012; Gundersen, Kreider, and Pepper 2010; Kreider et al. 2012; Wilde and Nord 2005). However, it is important to recognize that these means-tested programs directly augment households' material resources. The largest of these programs, SNAP, provides participants with money in the form of an electronic benefit card, redeemable at approved food stores. When compared to other safety-net programs in the U.S., SNAP has not been found to be more effective at reducing food insecurity than programs providing direct cash benefits (Schmidt, Shore-Sheppard, and Watson 2013). There is no evidence that food insecurity is caused by households' failure to allocate sufficient income to food, thus, tying benefits to food spending offers no particular advantages. Modelling the effect of implementing a SNAP-like benefit in Canada, we found that it would yield a reduction in food insecurity rates, but our calculations assumed that the benefit would be added to the existing fabric of social programs (Gundersen et al. 2016). In the absence of evidence that food assistance programs like SNAP offer advantages beyond direct cash transfers, the costs associated with mounting publicly funded food assistance programs in Canada seem unwarranted.

iii) Improved wages

Finally, it is worth considering what kinds of changes in household food insecurity status can be expected from initiatives to improve employment opportunities and/or wages for vulnerable groups. While most food insecure households are reliant on employment incomes, small increases in minimum wages are unlikely to diminish their vulnerability. Insofar as the high prevalence of food insecurity among those in the workforce is a function of short-term, part-time, temporary employment, and multi-person households trying to survive on the wages of a single earner, small increments to the minimum wage will have only a trivial impact on the incomes of these households and will do nothing to improve their income security. Even the adoption of a \$15 minimum or 'living' wage is unlikely to have much impact. Some argue that the implementation of a higher minimum wage will help to address problems of precarious work because it will raise the labour costs for firms that currently pay low wages and have high worker turnover, and this might create a financial incentive for such employers to invest in job training and provide more secure, full-time employment (Green 2015). Our research would suggest that any improvements in household food security emanating from increased wages are contingent on this eventuality.

TARGETED VERSUS UNIVERSAL INTERVENTIONS

One overarching limitation of policies and programs designed to improve low-income households' access to basic needs by raising the minimum wage, increasing access to affordable housing, raising social assistance rates, or providing other in-kind supports to specific at-risk groups, is the piecemeal nature of these interventions. Problems of food insecurity are not limited to any single population subgroup defined by household structure, main income sources, or some other socio-demographic characteristic. The only common denominator is inadequate, insecure incomes. A major advantage of a B.I.G. over policy initiatives tailored to specific population subgroups such as seniors, social assistance recipients, working families, youth, etc., is that a B.I.G. can reach all individuals and households who are vulnerable to food insecurity by virtue of inadequate, insecure incomes.

CONCLUDING COMMENTS

Household food insecurity is a serious problem in Ontario, affecting one in eight households, with significant implications for individuals' health and well-being. **This problem is taking a substantial toll on provincial health care spending.** To date, the Province has taken no policy action with the explicit goal of reducing food insecurity, and the prevalence of food insecurity has remained stationary over the past decade despite the rollout of a provincial poverty reduction strategy. Yet, there has been extensive research into the conditions that give rise to this problem and the interventions that mitigate it.

All of this work points to the value of a B.I.G. as an effective strategy to reduce food insecurity.

References

- Agriculture and Agri-Food Canada. 1998. Canada's Action Plan for Food Security: A Response to the World Food Summit, 1–54. Ottawa, ON: Agriculture and Agri-Food Canada.
- Aibubla W, Cox J, Hamelin AM, Mamiya H, Klein M, and Brassard P. 2016. Food insecurity and low CD4 count among HIV-infected people: a systematic review and meta-analysis. *AIDS Care*.
- Anema A, Chan K, Weiser S, Montaner J, and Hogg R. 2013. Relationship between Food Insecurity and Mortality among HIV-Positive Injection Drug Users Receiving Antiretroviral Therapy in British Columbia, Canada. *PLOS One* 8 (5): e61277.
- Anema A, Vogenthaler N, Frongillo EA, Kadiyala S, and Weiser S. 2009. Food insecurity and HIV/AIDS: current knowledge, gaps, and research priorities. *Current HIV/AIDS Report* 6: 224–231.
- Bhargava V, Lee J.S., Jain R, Johnson M, and Brown A. 2012. Food insecurity is negatively associated with home health and out-of-pocket expenditures in older adults. *J. Nutr.*
- Black M.M., Quigg A, Cook J, Casey P.H., Cutts D.B., Chilton M, Meyers A, Ettlinger de Cuba S, Heeren T, Coleman S, Rose-Jacobs R, and Frank D.A. 2012. WIC participation and attenuation of stress-related child health risks of household food insecurity and caregiver depressive symptoms. *Archives of Pediatrics and Adolescent Medicine* 166 (5): 444–451.
- Bronte-Tinkew J, Zaslow M, Capps R, Horowitz A, and McNamara M. 2007. Food insecurity works through depression, parenting, and infant feeding to influence overweight and health in toddlers. *Journal of Nutrition* 137: 2160–2165.
- Carmichael SL, Yang W, Herring A, Abrams B, and Shaw GM. 2007. Maternal food insecurity is associated with increased risk of certain birth defects. *Journal of Nutrition* 137: 2087–2092.
- Che J, and Chen J. 2001. Food insecurity in Canadian households. *Health Reports* 12 (4): 11–22.
- Chenhall C. 2010. Improving Cooking and Food Preparation Skills: A Profile of Promising Practices in Canada and Abroad. Healthy Living Issue Group, Pan-Canadian Public Health Network.
- Cox J, Hamelin AM, McLinden T, Moodie E, Anema A, Rollet-Kurhajec K, Paradis G, Rourke S, Walmsley S, Klein M, and Canadian Co-infection Cohort Investigators. 2016. Food Insecurity in HIV-Hepatitis C Virus Co-infected Individuals in Canada: The Importance of Co-morbidities. *AIDS and Behavior* DOI 10.1007/s10461-016-1326-9.
- Davison K, Marshall-Fabien G, and Tecson A. 2015. Association of moderate and severe food insecurity with suicidal ideation in adults: national survey data from three Canadian provinces. *Social Psychiatry Psychiatric Epidemiology* 14 (1): 21–30.
- Emery JH, Fleisch V, and McIntyre L. 2013. How a guaranteed annual income could put food banks out of business. *SPP Research Papers* 6 (37): 1–20.
- . 2013. Legislated changes to federal pension income in Canada will adversely affect low-income seniors' health. *Preventive Medicine* 57: 963–966.
- Engler-Stringer R, and Berenbaum S. 2007. Exploring food security with collective kitchens participants in three Canadian cities. *Qualitative Health Research* 17 (1): 75–84.
- Fafard-St Germain A, and Tarasuk V. 2017. High vulnerability to household food insecurity in a sample of Canadian renter households in government-subsidized housing. *Canadian Journal of Public Health* forthcoming.
- Fitzpatrick T, Rosella L, Calzavara A, Petch J, Pinto A, Manson H, Goel V, and Wodchis W. 2015. Looking beyond income and education: socioeconomic status gradients among future high-cost users of health care. *American Journal of Preventive Medicine*.
- Ford E. 2013. Food security and cardiovascular disease risk among adults in the United States: findings from the National Health and Nutrition Examination Survey, 2003–2008. *Preventing Chronic Disease* 10: 130244.
- Government of Ontario. 2008. Growing Stronger Together. Ontario's Poverty Reduction Plan. Toronto ON: Government of Ontario http://www.health.gov.on.ca/english/public/updates/archives/hu_08/poverty_reduction_20080506.pdf.

- . 2010. Breaking the Cycle: the Second Progress Report. Ontario's Poverty Reduction Strategy 2010 Annual Report.
- Green D. 2015. The Case for Increasing the Minimum Wage. What Does the Academic Literature Tell Us? Canadian Centre for Policy Alternatives, BC Office.
- Gundersen C, Kreider B, and Pepper J. 2010. The impact of the National School Lunch Program on child health: a nonparametric bounds analysis. *Journal of Econometrics*.
- Gundersen C, Kreider B, Pepper J, and Tarasuk V. 2016. Food assistance programs and food insecurity: implications for Canada in light of the mixing problem. *Empirical Economics*.
- Gundersen C, and Ziliak J. 2015. Food insecurity and health outcomes. *Health Affairs* 34 (11): 1830–1839.
- Hamelin AM, Mercier C, and Bedard A. 2008. Perceptions of needs and responses in food security: divergence between households and stakeholders. *Public Health Nutrition* 11 (12): 1389–1396.
- Health Canada. 2007. Canadian Community Health Survey, Cycle 2.2, Nutrition (2004)—Income-Related Household Food Security in Canada. Ottawa, ON: Office of Nutrition Policy and Promotion, Health Products and Food Branch, Health Canada.
- Heflin CM, Siefert K, and Williams DR. 2005. Food insufficiency and women's mental health: findings from a 3-year panel of welfare recipients. *Social Science & Medicine* 61: 1971–1982.
- Huddleston-Casas C, Charnigo R, and Simmons L. 2009. Food insecurity and maternal depression in rural, low-income families: a longitudinal investigation. *Public Health Nutrition* 12 (8): 1133–1140.
- Huisken A, Orr S, and Tarasuk V. 2016. Adults' food skills and use of gardens are not associated with household food insecurity in Canada. *Canadian Journal of Public Health* 107 (6): e526–e532.
- Ionescu-Ittu R, Glymour M, and Kaufman J. 2015. A difference-in-difference approach to estimate the effect of income-supplementation on food insecurity. *Preventive Medicine* 70: 108–116.
- Jones L, Milligan K, and Stabile M. 2015. Child cash benefits and family expenditures: evidence from the National Child Benefit. Cambridge MA: National Bureau of Economic Research.
- Kirkpatrick S, and Tarasuk V. 2008. Food insecurity is associated with nutrient inadequacies among Canadian adults and adolescents. *Journal of Nutrition* 138: 604–612.
- . 2010. Assessing the relevance of neighbourhood characteristics to the household food security of low-income Toronto families. *Public Health Nutrition* 13 (7): 1139–1148.
- Kirkpatrick S, Dodd KW, Parsons R, Ng C, Garriguet D, and Tarasuk V. 2015. Household food insecurity is a stronger marker of adequacy of nutrient intakes among Canadian compared to American youth and adults. *Journal of Nutrition* 145 (7): 1596–1603.
- Kirkpatrick S, McIntyre L, and Potestio M. 2010. Child hunger and long-term adverse consequences for health. *Archives of Pediatrics and Adolescent Medicine* 164 (8): 754–762.
- Kirkpatrick S, and Tarasuk V. 2011. Housing circumstances are associated with household food access among low-income urban families. *Journal of Urban Health* doi:10.1007/s11524-010-9535-4.
- Kreider B, Pepper J, Gundersen C, and Jolliffe D. 2012. Identifying the effects of SNAP (Food Stamps) on child health outcomes when participation is endogenous and misreported. *Journal of the American Statistical Association* 107 (499): 958–975.
- Laraia BA, Siega-Riz AM, Gundersen C, and Dole N. 2006. Psychosocial factors and socioeconomic indicators are associated with household food insecurity among pregnant women. *Journal of Nutrition* 136: 177–182.
- Ledrou I, and Gervais J. 2005. Food insecurity. *Health Reports* 16 (3): 47–50.
- Li N, Dachner N, and Tarasuk V. 2016. The impact of changes in social policies on household food insecurity in British Columbia, 2005–2012. *Preventive Medicine* <http://dx.doi.org/10.1016/j.ypmed.2016.10.002>.
- Loopstra R, Dachner N, and Tarasuk V. 2015. An exploration of the unprecedented decline in the prevalence of

- household food insecurity in Newfoundland and Labrador, 2007–2012. *Canadian Public Policy* 41 (3): 191–206.
- Loopstra R, and Tarasuk V. 2012. The relationship between food banks and household food insecurity among low-income Toronto families. *Canadian Public Policy* 38 (4): 497–514.
- . 2013. Perspectives on community gardens, community kitchens and the Good Food Box program in a community-based sample of low-income families. *Canadian Journal of Public Health* 104 (1): e55-e59.
- . 2013. Severity of household food insecurity is sensitive to change in household income and employment status among low-income families. *Journal of Nutrition* 143: 1316–1323.
- . 2013. What does increasing severity of food insecurity indicate for food insecure families? Relationship between severity of food insecurity and indicators of material hardship and constrained food purchasing. *Journal of Hunger and Environmental Nutrition* 8: 337–349.
- . 2015. Food bank use is a poor indicator of food insecurity: insights from Canada. *Social Policy and Society* 14 (3): 443–455.
- McIntyre L. 2003. Food security: more than a determinant of health. *Policy Options* 24 (3): 46–51.
- McIntyre L, Bartoo A, and Emery J. 2012. When working is not enough: food insecurity in the Canadian labour force. *Public Health Nutrition* 17 (1): 49–57.
- McIntyre L, Bartoo A, Pow J, and Potestio M. 2012. Coping with child hunger in Canada: have household strategies changed over a decade? *Canadian Journal of Public Health* 103 (6): 428–432.
- McIntyre L, Dutton D, Kwok C, and Emery J. 2016. Reduction of food insecurity in low-income Canadian seniors as a likely impact of a Guaranteed Annual Income. *Canadian Public Policy* 42 (3).
- McIntyre L, Pow J, and Emery J. 2015. A path analysis of recurrently food-insecure Canadians discerns employment, income, and negative health effects. *Journal of Poverty*: 1–17.
- McIntyre L, Williams J, Lavorato D, and Patten S. 2012. Depression and suicide ideation in late adolescence and early adulthood are an outcome of child hunger. *Journal of Affective Disorders* 150 (1): 123–129.
- McIntyre L, Wu X, Fleisch V, and Emery J. 2015. Homeowner versus non-homeowner differences in household food insecurity in Canada. *J Hous and the Built Environ* DOI 10.1007/s109011-015-9461-6.
- McLeod L, and Veall M. 2006. The dynamics of food insecurity and overall health: evidence from the Canadian National Population Health Survey. *Applied Economics* 38: 2131–2146.
- Nakhaie R, and Arnold R. 2010. A four year (1996–2000) analysis of social capital and health status in Canada: The difference that love makes. *Social Science & Medicine* 71: 1037–1044.
- Nelson K, Cunningham W, Andersen R, Harrison G, and Gelberg L. 2001. Is food insufficiency associated with health status and health care utilization among adults with diabetes? *Journal of General Internal Medicine* 16: 404–411.
- Olabi O, and McIntyre L. 2014. Determinants of food insecurity in higher-income households in Canada. *Journal of Hunger and Environmental Nutrition* 9: 433–448.
- Ontario Progressive Conservative Party. 2013. *Paths to Prosperity: Welfare to Work*.
- Parker E, Widome R, Nettleton J, and Pereira M. 2010. Food security and metabolic syndrome in U.S. adults and adolescents: findings from the National Health and Nutrition Examination Survey, 1996–2006. *Annals of Epidemiology* 20: 364–370.
- Province of Newfoundland and Labrador. 2014. *Newfoundland and Labrador Poverty Reduction Strategy Progress Report*. Province of Newfoundland and Labrador.
- Schmidt L, Shore-Sheppard L, and Watson T. 2013. *The Effect of the Safety Net Programs on Food Insecurity*. Cambridge MA: National Bureau of Economic Research.
- Seligman HK, Bindman AB, Vittinghoff E, Kanaya AM, and Kushel MB. 2007. *Food Insecurity is Associated with Diabetes*

- Mellitus: Results from the National Health Examination and Nutrition Examination Survey (NHANES) 1999–2002. *Journal of General Internal Medicine* 22: 1018–1023.
- Seligman HK, Laraia BA, and Kushel MB. 2010. Food insecurity is associated with chronic disease among low-income NHANES participants. *Journal of Nutrition* 140: 304–310.
- Seligman HK, and Schillinger D. 2010. Hunger and socioeconomic disparities in chronic disease. *New England Journal of Medicine* 363 (1): 6–9.
- Siefert K, Heflin CM, Corcoran ME, and Williams DR. 2001. Food insufficiency and the physical and mental health of low-income women. *Women & Health* 32 (1/2): 159–177.
- Sriram U, and Tarasuk V. 2016. Economic predictors of household food insecurity in Canadian metropolitan areas. *Journal of Hunger and Environmental Nutrition* 11: 1–13.
- Stuff JE, Casey P.H., Szeto KL, Gossett JM, Robbins JM, Simpson PM, Connell C, and Bogle ML. 2004. Household food insecurity is associated with adult health status. *Journal of Nutrition* 134: 2330–2335.
- Tarasuk V. 2001. A critical examination of community-based responses to household food insecurity in Canada. *Health Education & Behavior* 28 (4): 487–499.
- Tarasuk V, Cheng J, de Oliveira C, Dachner N, Gundersen C, and Kurdyak P. 2015. Association between household food insecurity and annual health care costs. *Canadian Medical Association Journal* 187 (14): E429–E436.
- Tarasuk V, Dachner N, Hamelin AM, Ostry A, Williams P, Bocskei E, Poland B, and Raine K. 2014. A survey of food bank operations in five Canadian cities. *BMC Public Health* 14: 1234.
- Tarasuk V, Mitchell A, and Dachner N. 2014. Household food insecurity in Canada, 2012. Toronto, ON: Research to Identify Policy Options to Reduce Food Insecurity (PROOF).
- . 2016. Household Food Insecurity in Canada, 2014. Toronto ON: Research to Identify Policy Options to Reduce Food Insecurity (PROOF).
- Tarasuk V, Mitchell A, McLaren L, and McIntyre L. 2013. Chronic physical and mental health conditions among adults may increase vulnerability to household food insecurity. *Journal of Nutrition* 143 (11): 1785–1793.
- Tarasuk V, and Vogt J. 2009. Household food insecurity in Ontario. *Canadian Journal of Public Health* 100 (3): 184–188.
- Vozoris N, and Tarasuk V. 2003. Household food insufficiency is associated with poorer health. *Journal of Nutrition* 133 (1): 120–126.
- Whitaker RC, Phillips SM, and Orzol SM. 2006. Food insecurity and the risks of depression and anxiety in mothers and behavior problems in their preschool-aged children. *Pediatrics* 118 (3): e859–e868.
- Wilde PE, and Nord M. 2005. The effect of Food Stamps on food security: a panel data approach. *Review of Agricultural Economics* 27 (3): 425–432.

About Northern Policy Institute

Northern Policy Institute is Northern Ontario's independent think tank. We perform research, collect and disseminate evidence, and identify policy opportunities to support the growth of sustainable Northern Communities. Our operations are located in Thunder Bay, Sudbury, and Sault Ste. Marie. We seek to enhance Northern Ontario's capacity to take the lead position on socio-economic policy that impacts Northern Ontario, Ontario, and Canada as a whole.

Related Research

Do We Still Need a Basic Income Guarantee in Canada?

Evelyn L. Forget

Basic Income Guarantee and First Nations: Cautions for Implementation

Dr. Gayle Broad and
Jessica Nadjiwon-Smith

Food for Thought: Access to Food in Canada's Remote North

Holly Dillabough

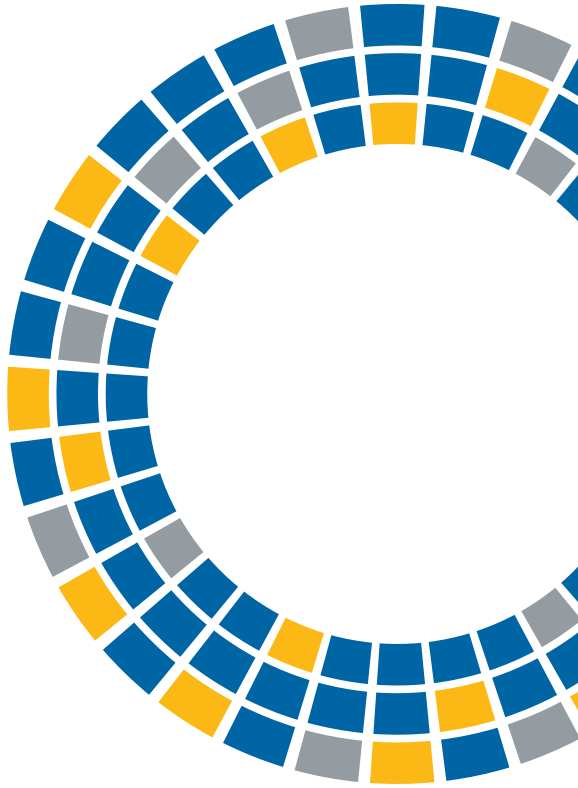
Access to Care for All Northern Ontarians: A Means to Optimizing Health

Emily Donato and John MacDonald

To stay connected or get involved, please contact us at:

1 (807) 343-8956 info@northernpolicy.ca www.northernpolicy.ca





NORTHERN
POLICY INSTITUTE

INSTITUT DES POLITIQUES
DU NORD

northernpolicy.ca