Practical Tips for Paediatricians

Food insecurity in the paediatric office

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PRACTICAL TIP 1: THE RELATION OF FOOD INSECURITY WITH HEALTH OUTCOMES

Food insecurity (FI), is defined as unreliable access to sufficient quantities of affordable and nutritious food (1,2). It affects one in six Canadian children under 18 years and is most prevalent in vulnerable groups such as those living in poverty, families headed by single mothers, Indigenous, rural, immigrant, and refugee populations (1,2). FI is associated with long-term negative outcomes including anxiety, depression, developmental concerns, and decreased school engagement (2). Given the high prevalence of FI, Canadian paediatricians will likely encounter many children exposed to FI.

PRACTICAL TIP 2: ADDRESSING FI IN THE PAEDIATRIC OFFICE

The American Academy of Pediatrics recommends that paediatricians address FI at each well-child visit. However, the Canadian Paediatric Society has not yet released any similar guidelines (2). To better identify families at risk of FI, a validated and brief two-item screen has been developed by Hager et al:

1. "Within the past 12 months we worried whether our food would run out before we got money to buy more" (3)
2. "Within the past 12 months the food we bought just didn't last and we didn't have money to get more (3)."

Responding 'yes' to either question was 97% sensitive and 83% specific for the presence of FI (3). These questions should be used as a starting point to discuss the families' priorities and broader concerns in addressing FI.

PRACTICAL TIP 3: MANAGING FI IN THE PAEDIATRIC OFFICE

It should be emphasized that it is important to collaborate with families to identify programs that are best tailored to the families' needs. Immediate management of FI may include referral to community interventions and income supplementation programs, while long-term measures include advocacy for policy-level change (Table 1).

Community interventions

Food banks can provide immediate access to nonperishable foods for individuals facing severe food deprivation (4). However, they have limited access to fruits and vegetables and often have limited food supplies (4). Thus, they cannot and should not be used as long-term solutions. Community kitchens, where individuals gather on a regular basis to pool food resources and prepare meals, are more promising. As users report improved social and psychological benefits as well as improved dietary quality and diversity. However, most research on community kitchens is limited in scope and some investigators highlight a lack of accessibility (5).

School-based interventions aim to provide children with an adequate breakfast and/or lunch. A recent systematic review found that school food programs increased fruit and vegetable

Table 1. Resources to manage food insecurity in the paediatric office

Level	Resources	Tool
Community Resources	Food banks	Food bank locator: https://www.foodbankscanada.ca/Utility-Pages/Find-a-Food-Bank.aspx National Programs: https://www.foodbankscanada.ca/Our-Work/Programs.aspx
	Community Kitchens School Nutrition Programs	Finding Community Kitchens / School Nutrition Programs https://www.redcross.ca/in-your-community
Income Supplementation, Subsidies and Grants	Government Benefits	Benefits Finder: https://srv138.services.gc.ca/daf/q?id=8ad99340-762e-46fc-bb71-10950ae65307&GoCTemplateCulture=en-CA Canada Child Benefit: https://www.canada.ca/en/revenue-agency/services/child-family-benefits/canada-child-benefit-overview.html Free Tax Clinics: https://www.canada.ca/en/revenue-agency/campaigns/free-tax-help.html

consumption, improved educational difficulties, and reduced the risk of children experiencing FI (5). Unfortunately, Canada has no national school food program, but some local school nutrition programs do exist.

Income supplementation

Because of the strong relation between FI and poverty, income supplementation has been recognized as an intervention to address FI. An analysis of families receiving the Universal Child Care Benefit (UCCB) (now called the Canada Child Benefit), revealed that receipt of the UCCB reduced the prevalence of FI from 16.4% to 2.4% (6). This effect was pronounced in respondents from households with yearly income below population median and single-parent families (6). Accordingly, paediatricians can inquire about the eligibility and receipt of CCB or other tax benefits and refer families to local free tax clinics.

Advocacy and policy-level change

Regions such as the Northwest Territories and Nunavut have the highest proportion of children in food insecure households in all of Canada (29% and 60%, respectively) (1). In these regions, geographical and systemic factors play a large role. FI has been steadily increasing in Nunavut despite the implementation of Nutrition North (a government subsidy for retailers selling nutritious foods) as this policy was accompanied by subsidy cuts to clothing and household items (7). As local FI resources are lacking in these areas, management relies largely on advocacy efforts to promote holistic solutions and lobby against such subsidy cuts.

Larger-scale advocacy can focus on policy-level change. Given the strong correlation between FI and income, paediatricians could support policies that address income-related

interventions. One such policy is the low-fee universal day-care program implemented by Quebec in 1997. Studies surrounding this policy have demonstrated significant and long-term positive impacts on labour force participation and maternal employment, particularly those who are less educated. Another policy to advocate for is the implementation of a federal nutrition program. The USA has implemented the Supplemental Nutrition Assistance Program (SNAP) and Supplemental Nutrition Benefits for Women, Infants and Children (WIC), both programs have been demonstrated to reduce FI (2).

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References

1. PROOF. Food Insecurity Policy Research Fact Sheets. 2018. <<https://proof.utoronto.ca/resources/fact-sheets/#children>> (Accessed June 4, 2019).
2. American Association of Paediatrics, Policy Statement. Promoting food security for all children. *Pediatrics*. 2015;136(5):e1431–8.
3. Hager ER, Quigg AM, Black MM, et al. Development and validity of a 2-item screen to identify families at risk for food insecurity. *Pediatrics* 2010;126(1):e26–32.
4. Bazerghi C, McKay FH, Dunn M. The role of food banks in addressing food insecurity: A systematic review. *J Community Health* 2016;41(4):732–40.
5. Holley CE, Mason C. A systematic review of the evaluation of interventions to tackle children's food insecurity. *Curr Nutr Rep* 2019;8(1):11–27.
6. Ionescu-Ittu R, Glymour MM, Kaufman JS. A difference-in-differences approach to estimate the effect of income-supplementation on food insecurity. *Prev Med* 2015;70:108–16.
7. St-Germain AF, Galloway T, Tarasuk V. Food insecurity in nunavut following the introduction of nutrition North Canada. *CMAJ* 2019;191(20):E552–8.