

Food insecurity: A public health issue for BC

As a wealthy province with publicly funded health care and schools, employment insurance, and social security, and a reliable food supply, no British Columbian should lack access to sufficient nutritious food. Still, over 8% of BC residents experience food insecurity,¹ and food bank use is up over 20% since 2008.²

Food security means more than having enough to eat. Even people depending on soup kitchens may get enough food, but the food they receive is often of poor quality and low nutritional value. The Ministry of Health considers a safe, nutritious, culturally acceptable diet obtained through a just and sustainable food system to be the foundation to healthy eating.³ Although poverty is an important risk factor, food insecurity exists where you may not expect it. New immigrants, people who lack food skills, working families, pensioners, university students, people with limited mobility, and residents of new suburban developments without neighborhood grocery stores also experience food insecurity.

Food insecurity leads to poor health through a complex network of factors. Nutrition and living conditions in the prenatal and early childhood periods impact health throughout life^{4,5} and into future generations.^{4,6} Children experiencing food insecurity have poorer school performance,⁷ and having not learned healthy eating habits in childhood, they face additional challenges to healthy living as adults. Food insecurity is associated with higher prevalence of diabetes^{8,9} as well as cardiovascular,^{8,9} dental,¹⁰

and psychosocial⁹ outcomes in adults. Food-insecure women are more likely to be obese.^{8,9,11} Researchers are conflicted as to whether these health conditions are caused by food security or the suite of circumstances related to socioeconomic deprivation, but the impacts on health and life course are real.^{5,12,13}

Though its causes extend beyond the scope of clinical practice, physicians should consider the impact of food insecurity on patients' health and treatment options.

Identify patients at risk

First Nations, single-parent families, recent immigrants, and people living on disability assistance, employment insurance benefits, or social assistance are at particular risk for food insecurity.^{2,14} Income in relation to living expenses, transportation to grocery stores, housing, and food literacy all affect diet quality. The Canadian Community Health Survey Household Food Security Survey Module provides 10 questions to assess the presence and severity of food insecurity.¹⁵

Consider food insecurity in treatment plans

Patients on limited budgets might have to choose between buying medication or food.¹³ They may avoid waste by consuming foods of questionable quality or safety. Managing chronic conditions is harder for patients whose food choices are restricted by finances, mobility, or social conditions. Healthy diets—for well-being, chronic disease management, or weight loss—cost more,¹⁶⁻¹⁸ and are difficult to obtain through charitable food sources.^{19,20}

Learn about available food security resources

HealthLink BC and the Ministry of Health websites provide information about community-based food security programs, advice about healthy eating on a limited income, and details of provincial and federal nutrition support benefits.^{21,22}

The BC Centre for Disease Control and the Population and Public Health Program at the Provincial Health Services Authority are engaged in research, program and policy development, and knowledge sharing to improve access to safe and healthy food for all. In addition to their clinical practice, physicians can further support patient health by advocating for policies that improve food security in British Columbia.

—Karen Rideout, PhD

—Tom Kosatsky, MD

References

1. Health Canada. Household food insecurity in select provinces and the territories in 2009-2010. Health Canada; 2012. Accessed 9 December 2013. www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/insecurit/prov_ter-eng.php.
2. Food Banks Canada. HungerCount 2013. Accessed 17 December 2013. www.foodbankscanada.ca/hungercountsurvey.
3. Government of British Columbia. Ministry of Health. Core public health programs. Health improvement. Food security. Accessed 9 December 2013. www.health.gov.bc.ca/public-health/core-programs/health-improvement/food-security/.
4. Lynch J, Smith GD. A life course approach to chronic disease epidemiology. *Annu Rev Public Health* 2005;26:1-35.
5. Belsky DW, Moffitt TE, Arseneault L, et al. Context and sequelae of food insecurity in children's development. *Am J Epidemiol* 2010;172:809-818.

Continued on page 46

This article is the opinion of the BC Centre for Disease Control and has not been peer reviewed by the BCMJ Editorial Board.

Continued from page 29

6. Burdge GC, Lillycrop KA. Nutrition, epigenetics, and developmental plasticity: Implications for understanding human disease. *Annu Rev Nutr* 2010;30:315-339.
7. Roustit C, Hamelin A-M, Grillo F, et al. Food insecurity: Could school food supplementation help break cycles of inter-generational transmission of social inequalities? *Pediatrics* 2010;126:1174-1181.
8. Seligman HK, Laraia BA, Kushel MB. Food insecurity is associated with chronic disease among low-income NHANES participants. *J Nutr* 2010;140:304-310.
9. Vozoris NT, Tarasuk VS. Household food insufficiency is associated with poorer health. *J Nutr* 2003;133:120-126.
10. Muirhead V, Quiñonez C, Figueiredo R, et al. Oral health disparities and food insecurity in working poor Canadians. *Community Dent Oral Epidemiol* 2009;37:294-304.
11. Franklin B, Jones A, Love D, et al. Exploring mediators of food insecurity and obesity: A review of recent literature. *J Community Health* 2012;37:253-264.
12. Loopstra R, Tarasuk V. What does increasing severity of food insecurity indicate for food insecure families? Relationships between severity of food insecurity and indicators of material hardship and constrained food purchasing. *J Hunger Environ Nutr* 2013;8:337-349.
13. Gundersen C, Kreider B, Pepper J. The economics of food insecurity in the United States. *Applied Economic Perspectives Policy* 2011;33:281-303.
14. Health Canada. Household food insecurity in Canada in 2007-2008: Key statistics and graphics. 2012. Accessed 17 December 2013. www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/insecurit/key-stats-cles-2007-2008-eng.php.
15. Health Canada. Determining food security status. 2012. Accessed 9 December 2013. www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/insecurit/status-situation-eng.php.
16. Jetter KM, Cassady DL. The availability and cost of healthier food alternatives. *Am J Prev Med* 2006;30:38-44.
17. Rao M, Afshin A, Singh G, et al. Do healthier foods and diet patterns cost more than less healthy options? A systematic review and meta-analysis. *BMJ Open*. 2013;3:e004277.
18. Dietitians of Canada. The cost of eating in British Columbia. Accessed 17 December 2013. www.dietitians.ca/Secondary-Pages/Public/The-Cost-of-Eating-in-British-Columbia.aspx.
19. Bocskei EM, Ostry AS. Charitable food programs in Victoria, BC. *Can J Diet Pract Res* 2010;71:46-48.
20. Irwin JD, Ng VK, Rush TJ, et al. Can food banks sustain nutrient requirements? A case study in Southwestern Ontario. *Can J Public Health* 2007;98:17-20.
21. Government of British Columbia. Ministry of Health. Healthy Living Branch. Healthy eating and food security. Food security. Accessed 11 December 2013. www.health.gov.bc.ca/healthyeating/foodsecurity.html.
22. HealthLink BC. Food security. Accessed 11 December 2013. www.healthlinkbc.ca/healthyeating/professionals/food-security.html.

doctors of bc

KEY CONTACTS: Directory of senior staff

Mr Allan Seckel

Executive Director & CEO
604 638-2888
aseckel@doctorsofbc.ca

Ms Christiane AhPin

Chief Operating Officer
604 638-2852
cahpin@doctorsofbc.ca

Ms Marisa Adair

Executive Director of
Communications and Public Affairs
604 638-2809
madair@doctorsofbc.ca

Mr Jim Aikman

Executive Director of
Economics and Policy Analysis
604 638-2893
jaikman@doctorsofbc.ca

Dr Sam Bugis

Executive Director of
Physician and External Affairs
604 638-8750
sbugis@doctorsofbc.ca

Mr Paul Straszak

Executive Director of Negotiations
604 638-2869
pstraszak@doctorsofbc.ca

Mr Rob Hulyk

Director of Physician
and External Affairs
604 638-2883
rhulyk@doctorsofbc.ca

Ms Sandie Braid

Director of Insurance
604 638-2817
sbraid@doctorsofbc.ca

Ms Cathy Cordell

General Counsel
604 638-2822
ccordell@doctorsofbc.ca

Mr Peter Denny

Director of Systems
604 638-2897
pdenny@doctorsofbc.ca

Ms Amanda Bernabe

Director of Human Resources
604 638-2812
abernabe@doctorsofbc.ca

Ms Anne Keeble

Director of Finance
604 638-2821
akeeble@doctorsofbc.ca

Mr Tod MacPherson

Director of Negotiations
604 638-2885
tmacpherson@doctorsofbc.ca

Ms Deborah Viccars

Director of Policy
604 638-7865
dviccars@doctorsofbc.ca