



## Commentary

**What about the other 50 percent of the Canadian population? Food allergies ignored in national policy plan**

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Food allergy is a growing public health epidemic in Canada and much of the western—and developing—worlds (Atiim, Elliott, & Clarke, 2017; 2018; Du Toit et al., 2015; Prescott et al., 2013; Sicherer & Sampson, 2014). US evidence suggests prevalence is increasing (Sicherer & Sampson, 2014), and while recent Canadian prevalence data are pending, data from the Montreal Children's Hospital suggest the percentage of anaphylaxis cases among emergency department visits more than doubled between 2011 and 2015 (Hochstadter et al., 2016). And yet, the Prime Minister's mandate letter outlining an agenda that aims “to develop a food policy that promotes healthy living and safe food by putting more healthy, high quality food, produced by Canadian ranchers and farmers, on the tables of families across the country” (Trudeau, 2015) makes no mention of the 50 percent of Canadian households affected, directly or indirectly, by food allergy (meaning an individual may not be diagnosed or have a food allergic person in the household, but attends a school or workplace where there is a nut ban, for example (Harrington, Elliott, Clarke, Ben-Shoshan, & Godefroy, 2012)).

More recently, a September 2017 special issue of the journal produced by the Public Health Agency of Canada entitled *Health Promotion and Chronic Disease Prevention in Canada* focused on “The Food Environment in Canada”. The papers in the special issue deal with sugar, food marketing to children, assessing healthy foods in supermarkets, support for healthy eating in schools, and provincial policies such as the Ontario Food and Nutrition Strategy. Again, none of these papers address the 2.5 million Canadians with a food allergy (Soller et al., 2015), ignoring a significant chronic health issue and growing public health problem in Canada.

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Allergic reactions range in severity, and symptoms can include swelling of the lips, hives and rash, nausea, difficulty breathing, asthma and diarrhea. The most severe form of food allergy is anaphylaxis and can be life-threatening, affecting an individual's respiratory, cardiovascular and gastrointestinal systems (Harrington, et al., 2012). In the Canadian context, the most common food allergens are peanuts, tree nuts, fish, shellfish, egg, milk, soy, mustard, or sesame (Soller et al., 2012). While 2.5 million, or 7.5 percent of Canadians are affected directly by food allergy (Soller et al., 2012), prevalence differs geographically and across socioeconomic groups (Soller et al., 2015); and remember, a total of 50 percent of Canadian households are affected, directly or indirectly, by food allergy (Harrington et al., 2012).

Food allergies not only increase the risk of fatality for those most severely affected, they regularly disrupt life for those diagnosed and their families. Impacts on psychosocial health and quality of life have been documented in the academic literature (Dean et al., 2016; Fenton et al., 2011), with many of those affected negotiating both physical safety and social wellbeing, including stigmatization and social exclusion for many children and teens (Fenton et al., 2011). Further, food allergies affect food security for the most vulnerable and are a major health literacy issue for new Canadians (Minaker, Elliott, & Clarke, 2014; Lu et al., 2014).

In order to improve the quality of life of those impacted by food allergy, the Canadian research granting councils have funded a Network of Centres of Excellence (NCE) for the past 13 years, called AllerGen (the Allergy, Genes and Environment Network), hosted by McMaster University. AllerGen aims to investigate the causes and consequences of allergic disease, including food allergy<sup>1</sup>. As such, AllerGen researchers have produced more than 50 peer reviewed journal articles related to the prevalence and consequences of food allergy for Canadians. Not only does AllerGen create knowledge; a primary aim of this research team is to engage in knowledge dissemination and mobilization, in order to inform effective, equitable and evidence-based public policy and educational programming. For example, AllerGen researchers collected the first national prevalence data for food allergy in Canada (Soller et al., 2012), data that influenced national and regional policies related to food labeling and helped to create safe spaces for children in local communities.

Continuing to inform strong policy that can minimize risk for affected Canadians is critical, as there is currently no cure for food allergy (Marra et al., 2017). Management for food allergic individuals is limited to strict allergen avoidance (Fenton et al., 2011), by navigating food labels, restaurants, and relying on the actions of others (friends, family, flight attendants, teachers, cafeteria staff, servers in restaurants, etc.) to minimize risk on behalf of the food allergic. Symptomatic treatment of reactions exists, and the most common medication used for an anaphylactic reaction is a shot of epinephrine (commonly through an epinephrine auto-injector) given as a rescue medication. Anaphylaxis is potentially fatal, and while it does not happen often, it does occur. Some of these deaths are well known: Sabrina Shannon, after whom

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<sup>1</sup> <http://allergen-nce.ca>

Sabrina’s Law<sup>2</sup> is named, died in 2003 in her Pembroke, Ontario school cafeteria at age 13 as a result of cross contamination (Fenton et al., 2011). She was not the first—a university athlete died in 1986 after eating chili in a restaurant in Providence, Rhode Island, that was flavoured with peanut butter (The New York Times, 1986). Despite these deaths, safe spaces have still not been adequately created. Andrea Mariano died in the cafeteria at Queen’s University in September 2015 as a result of cross contamination in a smoothie she ordered (CBC News, 2016). Although most people affected by food allergy do not die, their lives and the lives of their families are constantly impacted: familial concern related to exposure risk, stigmatization, social restrictions, and isolation (e.g., birthday parties, sleepovers and school events become spaces of potential risk), bullying, restricted food choices and cross contamination concerns exist (Chan et al., 2016; Fenton et al., 2011). While some children outgrow certain allergies (for example, to milk and egg), others (peanut, tree nut) are rarely outgrown (Anagnostou & Clark, 2015). Although episodic acute food allergic events occur, food allergy is a chronic health issue.

As a relatively recent, emerging public health issue, food allergy has attracted interest from science, media, and the commercial sector. While both genetic and environmental risk factors are associated its development, the complete etiology of food allergy remains unknown (Harrington et al., 2012). While policy makers attempt to respond to the needs of affected individuals and develop risk management strategies in a range of settings, it is with a “weight of evidence” approach; meaning, while we do not have all the answers, we have enough information to make some strong policy choices (e.g., related to food labelling, creating safe spaces in school settings) that can intervene to maximize choice and minimize risk for affected Canadians, and place Canada at the forefront of food allergy management and research. As an increasing number of children with allergies are growing up and entering colleges, universities, and the workforce where no policies exist to provide safe spaces or compensate adverse reactions, the need for policy that recognizes food allergy as a chronic health issue that represents a significant public health problem in Canada is critical.

AllerGen has developed several legacy projects including a birth cohort (The Canadian Health Infant Longitudinal Development (CHILD) Study<sup>3</sup> and a team to develop a National Food Allergy Strategy for Canada (NFAST)<sup>4</sup>. Based on over a decade of commitment to working in an integrated fashion with end users and policy makers, NFAST is contributing to the creation of a culture of citizen-based, deliberative democracy in national food policy building and is a strong example of how community-academic partnerships can contribute to national policy building in this country. Until a national food policy in Canada accounts for the substantial and growing chronic public health problem of food allergies (e.g., expansion of school-based policies to post-secondary educational institutions; introduction of standardized restaurant training programs; provision of stock epi-pens [rescue medication used in the event of

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<sup>2</sup> Sabrina’s Law, the first of its kind in the world to seek to provide a safe school environment for food allergic children, was passed in Ontario in 2005. <https://www.ontario.ca/laws/statute/05s07>

<sup>3</sup> <http://allergen-nce.ca/research/strategy/child>

<sup>4</sup> <http://allergen-nce.ca/outcomes-impacts/kmb/nfast>

an anaphylactic reaction] in public places, similar to defibrillator machines), NFAST considers building a National Food Allergy Strategy a high priority.

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