

Food in Canada: Eat at your own risk

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Canada's public and private sectors are not doing enough to prevent food-borne illnesses.¹ Among the major failings are inadequate active surveillance systems, an inability to trace foods from "farm to fork" and a lack of incentives to keep food safe along the "farm to fork" pathway. The result? Eleven million or more episodes of food-related gastroenteritis in Canada every year. This is a crude estimate at best, because at least one report suggests that fewer than 1 in 200 episodes are reported.²

A recent evaluation of food safety in 17 countries belonging to the Organisation for Economic Co-operation and Development, entitled *World Ranking: 2010 food safety performance*, ranked Canada in the middle with regard to rate of control of some but not all food-borne pathogens.³ Fortunately, most instances of food poisoning are mild, but illnesses from contaminated food represent a substantial health and economic burden to Canada, at an average cost of \$1089 per case.⁴ Furthermore, among vulnerable patients, such as the frail elderly, food-borne illnesses can be serious and even lethal.

Our lacklustre effort at detecting, controlling and reporting infections caused by food is problematic. It's even worse that when contaminations are confirmed, we are unable to trace the origins of the contamination along the food chain. At present, rules and monitoring vary considerably by food source, jurisdiction (municipal, provincial or federal) and location.⁴ What we need are more active forms of surveillance using common high standards for sampling foods throughout the food chain, for laboratory processing, for rapid removal of foods not meeting the standards and for reporting of laboratory results to the public. For the frail elderly and chronically ill, known high-risk microbes like *Listeria* are especially problematic — we should aim specifically at zero tolerance for ready-to-eat foods for this population.

The same *World Ranking* report rated Canada's food industries and government agencies 15th out of 16 on traceability.³ Traceability — knowing where food originates, how it is processed and what path it takes to the consumer — is another important aspect of food safety.

Without traceability, it is often impossible to determine where contaminated food originated or where along its route unsafe practices put the public in danger.

What is worrisome is that this is the situation almost three years after the listeriosis outbreak in 2008, when at least 20 people died as a consequence of eating contaminated meats.⁵ The Weatherill inquiry made 57 recommendations after that outbreak, but they focused on improving government processes. We now have more inspectors, but we still depend on company insiders overseeing inspections with no uniform national standards or process benchmarks.

Canadians are usually good at regulation. Canada's pragmatic yet stringent regulation of financial institutions ensured that the economic downturn has been less severe here than in other countries. In health, our blood system's surveillance programs and ability to trace products from "vein to vein" is another fine model.

Canada needs to adopt rigorous food safety standards that value food safety over profitability,⁶ and enforce them with higher-quality and more active surveillance and inspection measures that put more emphasis on higher-risk foods.⁴

No system can afford to trace and inspect 100% of foods. Thus, industry must assume primary responsibility for safe food production, processing and distribution. But, government policies and incentives are needed to promote safety where industry has no reason to do so. For instance, finding cost-effective incentives for poultry farmers to decrease *Salmonella* and *Campylobacter* in their flocks may decrease human infections. At present, not only do these organisms have little health effects on chickens, but strategies to decrease colony counts would decrease marginal profits.

Private and public oversight of food safety should be reformed to ensure sufficiently uniform practices across the country so that we can make comparisons among different regions, suppliers and types of food. Incentives need to be in place to encourage improvement in food safety at each step. Information on outbreaks of food-borne illnesses — including their possible causes and actions taken to stop them — should be

Competing interests: See www.cmaj.ca/misc/cmaj_staff.dtl. None declared by Jane Coutts.

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CMAJ 2011. DOI:10.1503/cmaj.110453

quickly and publicly reported to provide timely feedback to food producers and inspectors, and also to educate the public. Canada should also work with international partners for effective monitoring of the food we import.

Food will never be sterile and risk-free. However, without changes, many people will be harmed and some will die because of preventable contamination.

References

1. Attaran A, MacDonald N, Stanbrook M, et al. Listeriosis is the least of it. *CMAJ* 2008;179:739-40.
2. Thomas MK, Majowicz SE, Pollari F, et al. Burden of acute gastrointestinal illness in Canada, 1999–2007: interim summary of NSAGI activities. *Can Commun Dis Rep* 2008;34:8-15.
3. Charlebois S, MacKay G. *World ranking: 2010 food safety performance*. Saskatoon (SK): Johnson–Shoyama Graduate School of Public Policy; 2010. Available: www.schoolofpublicpolicy.sk.ca/_documents/_publications_reports/food_safety_final.pdf (accessed 2011 Mar. 17).
4. Holley RA. Smarter inspection will improve food safety in Canada. *CMAJ* 2010;182:471-3.
5. *Lessons learned report: Health Canada's response to the 2008 listeriosis outbreak*. Ottawa (ON): Health Canada, Health Products and Food Branch; 2009. Available: www.hc-sc.gc.ca/fn-an/pubs/securit/listeriosis-eng.php (accessed 2011 Mar. 17).
6. Food and Agriculture Organization of the United Nations and World Health Organization. *Assuring food safety and quality: guidelines for strengthening national food control systems*. Available: www.who.int/foodsafety/publications/capacity/en/Englsih_Guidelines_Food_control.pdf (accessed 2011 Mar. 17).