Lessons Learned
Health Canada’s Response to the 2008 Listeriosis Outbreak

Executive Summary

The Listeriosis outbreak in the summer/fall of 2008 linked to ready-to-eat meats produced at a Maple Leaf plant in Ontario was a significant public health event. The listeriosis outbreak in the summer/fall of 2008 linked to ready-to-eat meats produced at a Maple Leaf plant in Ontario was a significant public health event. As of December 10, 2008, there were 20 deaths across five provinces where listeriosis was the underlying or contributing cause of death and the outbreak generated high media and public interest. The collective efforts of local and regional health authorities, provincial and territorial governments, federal officials and industry helped to detect and respond to the outbreak.

Health Canada (HC), the Public Health Agency of Canada (PHAC) and the Canadian Food Inspection Agency (CFIA) routinely review how they respond to outbreaks of food-borne illness and other food safety incidents. Following the 2008 listeriosis outbreak, each organization conducted internal lessons learned exercises to identify what worked well during this particular event and what needs improvement in terms of food safety management. Information for Health Canada’s lessons learned exercise was gathered by doing a thorough review of documents and policies, as well as conducting interviews and focus groups with federal staff involved in the outbreak.

Health Canada Lessons Learned

What worked well?

Overall, Health Canada responded well to the outbreak by providing consistent and timely laboratory services to its federal partners, such as sampling, testing, and health risks assessments, and coordinated well with its partners in transferring and sharing relevant laboratory information. Health Canada also collaborated with its partners to provide timely advice on health and food safety to the public.

Health Canada’s policy on Listeria monocytogenes in ready-to-eat foods was in place to provide guidance to the CFIA, industry, and other interested stakeholders on Listeria control and compliance criteria in Canada. The Food-borne Illness Outbreak Response Protocol was also used by Health Canada and its partners to guide the multi-jurisdictional response to the outbreak. This
tool allowed all regional, provincial, territorial and federal partners to work together in determining and responding to the root cause of the outbreak.

**Areas for improvement**

While Health Canada was well prepared to respond to the outbreak, some key lessons learned have been identified and point to the following areas for improvement:

- engaging in more proactive and targeted communications to the public;
- improving laboratory surge capacity for emergency situations;
- reviewing departmental policies and procedures to ensure that they reflect emerging food safety issues; and
- streamlining our internal processes for dealing with health risk assessments and interactions with other government departments during a crisis.

**Recommendations**

Specifically, Health Canada has suggested several recommendations to improve our response to similar outbreaks in the future. Many of these suggested actions are already underway, and/or require collaboration with our partners to implement.

1. **Clarifying HC’s Roles and Responsibilities:**
   - Raise awareness of Health Canada’s leadership role in laboratory testing during outbreak investigations, including the broader role of the Listeriosis Reference Service jointly run by HC and PHAC.
   - Improve the communication of HC’s role in policy development to federal partners.

2. **Policy and Procedures:**
   - Continue to review and update Health Canada’s Listeria Policy to ensure it reflects the best science available.
   - Work with PHAC and CFIA to revisit and formalize multijurisdictional food safety protocols, such as the Foodborne Illness Outbreak Response Protocol.

3. **Laboratory Activities:**
   - Enhance surge capacity preparedness to address demands for more rapid testing (e.g. additional training and cross-training to increase number of certified individuals for testing).
   - Develop more standardized procedures for sampling to improve the transfer and acceptance of sample information between federal laboratories.
   - Work with CFIA and PHAC, as well as the international scientific community, to determine the weight of evidence needed to take action, including communications and recalls.

4. **Health Risk Assessments:**
   - Assess surge capacity options to further reduce turnaround times.
   - Improve the request process by developing a more systematic approach to health risk assessments and communicating existing standard operation procedures to partners.
5. **Information Technology:**
   - Ensure adequate information technology systems are in place for urgent situations.
   - Consider how common information sharing tools can be used to facilitate data analysis.

6. **Federal Communications:**
   - Ensure continuous communication between federal partners in both routine and high profile situations.
   - Improve the effectiveness of federal communications by streamlining our internal processes for dealing with health risk assessments and interactions with other government departments during a crisis.
   - Enhance the integration of the First Nations and Inuit Health Branch into multijurisdictional food safety protocols, especially with respect to inter-organizational communications.

7. **Public Communications:**
   - Identify core communication leads for providing outreach to provinces and territories, stakeholders and the public.
   - Improve outreach by targeting and proactively communicating risks to vulnerable populations.
   - Review and update existing policies relating to crisis communications and conduct exercises around food safety scenarios to support staff taking on their respective roles in communicating with Canadians during a crisis.

**Key Steps to Date:**

Health Canada is continuing to examine the steps taken during the 2008 listeriosis outbreak and is taking measures aimed at preventing similar outbreaks in the future:

- In September 2008, HC issued Interim Market Authorizations to allow the use of sodium acetate and sodium diacetate as food preservatives in a number of foods, including ready-to-eat meats. These food additives can be used by food producers to help control the growth of harmful bacteria such as Listeria.

- HC, in collaboration with PHAC, is working to improve communications with the public around food safety issues. This includes improving the distribution of communications to the public, including those most at risk.

- HC is conducting laboratory experiments to improve upon Listeria detection methods and to examine the biological properties of the outbreak strains to try and better understand some of the factors that may have been involved in causing the outbreak.

- Health Canada is currently updating its 2004 policy on L. monocytogenes in ready-to-eat foods in view of enhancing the control of Listeria in high-risk foods.