

## **SUMMARY**

### **BACKGROUND**

On August 19, 2008, Ministère de la Santé et des Services sociaux (MSSS) declared a listeriosis outbreak in Québec. Listeriosis is an illness caused by a bacterium, *Listeria monocytogenes*, that is sometimes found in food. The illness must be reported to MSSS as soon as it is detected.

It was the responsibility of Ministère de l'Agriculture, des Pêcheries et de l'Alimentation (MAPAQ) to identify the contamination source(s) and arrest the spread of the disease. Based on a survey questionnaire by regional public health branches and food samples from retailers, MAPAQ concluded that the contamination source was linked to the consumption of Québec cheese.

In order to end the listeriosis outbreak, on September 4 and 5, 2008, MAPAQ instituted a massive recall of cheese from two Québec cheesemakers. On September 6 MAPAQ took action targeting some 300 retailers and destroyed all recalled cheese as well as all other products likely to have been in contact with it.

### **INVESTIGATION OBJECTIVES**

The investigation's first objective was to determine whether the ministries concerned had responded appropriately to public health needs and if the means used by MAPAQ (i.e., recalling and destroying cheese) were appropriate and reasonable given its risk evaluation.

A second objective sought to verify whether management of the crisis was in keeping with current regulations and standards for food-borne illnesses.

The investigation also aimed to gauge whether MAPAQ, which is also responsible for supporting and promoting the agrifood industry, had considered the impact of its actions on owners and developed a plan to support the industry once public health had been assured.

### **FINDINGS AND RECOMMENDATIONS**

#### **Public Health Protection**

Listeriosis caused by *Listeria monocytogenes* is dangerous to humans, particularly certain groups at risk, including people with impaired immune systems and pregnant women.

MSSS was quite right to declare a listeriosis outbreak on August 19, 2008, since there had been an unforeseen increase in the number of cases, and lab analysis had confirmed a link between them (the presence of the outbreak strain of *Listeria monocytogenes* [type 93]).

Preventive action can reduce the number of cases of listeriosis. In future, additional prevention efforts should be made, particularly by informing and advising those groups most at risk, particularly pregnant women, who were especially affected in 2008.

The Québec Ombudsman therefore **recommends** that MSSS bolster its prevention strategies aimed at groups at risk and all MSSS staff who monitor these groups.

(Recommendation 1, p. 26)

### MAPAQ's Decision to Destroy Cheeses from Over 300 Retailers

MAPAQ's destruction of products likely to have been in contact with recalled cheeses on September 6 was an exceptional measure that can nonetheless be justified given the information at its disposal concerning

- the rapid increase in the number of listeriosis cases,
- analysis showing the presence of *Listeria* in intact cheese wheels from two Québec plants, and
- the extent of crosscontamination between retailers.

However, a number of weaknesses have been found in MAPAQ's decision-making process and its handling of the crisis.

In the process that led MAPAQ to decide to destroy substantial quantities of cheese, the ministry failed to respect its own risk analysis rules. No separate and independent risk analysis was ever carried out, a failing that should be corrected to improve the way future food crises are handled. Rigorous and independent risk assessment is an essential part of making an informed decision.

MAPAQ also has no guidelines or action plan in place to specifically address an emergency or food crisis. The public has therefore no guarantee that measures adapted to each situation will be consistently put in place from one crisis to the next.

Moreover, in the absence of written directives to inspectors, the operation was not implemented even-handedly from one region to another. Guaranteeing the same quality of intervention and, consequently, uniform safety levels across Québec therefore proved impossible.

The Québec Ombudsman therefore **recommends** that MAPAQ have guidelines or an action plan for emergencies and food crises in order to clearly set out the roles and responsibilities of all those involved in the risk analysis process and the implementation of risk management options, namely

- ways to ensure sufficient quantities of sterile equipment are available to enable inspectors to carry out their work in line with MAPAQ's biosafety regulations,
- a provision that the decision to manage risk be set out in writing in a concise document stating why one risk option is to be preferred to another as well as the risk evaluation upon which the decision is based, and
- a provision that in addition to verbal directives, a written directive be sent to inspectors whenever they have to apply extraordinary measures in order to ensure that the chosen action is uniform, consistent, and effective. **(Recommendation 5, p. 48)**

### **MAPAQ Investigation Methods**

MAPAQ has no sampling guidelines for the investigation of food-borne illnesses, and its investigation and sampling procedure is currently determined on a case-by-case basis. At the start of the outbreak, the first investigations led by MAPAQ were incomplete. Prior to August 26, inspectors only sampled individually portioned cheese from retailers rather than intact cheese wheels. Their analysis was therefore unable to identify the source of the contamination, which hindered efforts to act as quickly as possible to protect public health and limit the impact the crisis had on the industry.

The Québec Ombudsman therefore **recommends** that MAPAQ update its action plan for food-borne illnesses to clearly set out the sampling procedure and investigation methods to be applied in order to quickly obtain all the information required to identify contamination sources, including food sampling in original packaging when available.

**(Recommendation 2, p. 39)**

### **Individually Portioned Cheese Recalls**

Before September 5, certain recalls of individually portioned cheeses were based on an incomplete investigation of cheese portions on sale to retailers. These recalls did not adequately protect the public as they did not identify the source of *Listeria* contamination. Furthermore, these recalls very likely created an uneven playing field for the affected processing plants.

The Québec Ombudsman therefore **recommends** that MAPAQ provide compensation for the losses associated with the recall of *Riopelle de l'Île*, *Tomme de Grosse-Île*, and *Mont-Jacob* cheeses produced by Société coopérative agricole de l'Île-aux-Grues and Fromagerie Blackburn, based on an independent assessment of the losses incurred.

**(Recommendation 4, p. 40)**

### **Intervention Standards Following Detection of the *Listeria monocytogenes* Bacterium**

MAPAQ did not follow its own intervention guide on what to do following detection of the *Listeria monocytogenes* bacterium in ready-to-eat products (*Guide d'intervention à la suite de la détection de la bactérie Listeria monocytogenes dans un aliment prêt à consommer*), which draws a distinction between food that supports growth of the bacterium (soft cheese) and food that does not (firm cheese). MAPAQ thereby drew no distinction between cheese types for which its own standards called for differing intervention standards.

Moreover, recalls were issued for processing plants whose cheeses had not been confirmed as contaminated and without any risk evaluation being carried out. This cast suspicion on these companies' products without sufficient evidence.

The Québec Ombudsman therefore **recommends** that MAPAQ apply its own intervention standards set out in *Guide d'intervention à la suite de la détection de la bactérie Listeria monocytogenes dans un aliment prêt à consommer*, according to the type of product concerned (whether or not it supports growth of the bacteria), the appropriate class of recall, and the recommended type of action, or failing that, that MAPAQ proceed with a suitable risk evaluation before disregarding the standards.

**(Recommendation 3, p. 39)**

The MAPAQ intervention procedure set out in the intervention guide does not specify the sampling and intervention procedure to follow in retail businesses or processing plants when the *Listeria* bacterium has been detected. MAPAQ's interventions are therefore determined on a case-by-case basis, depending on the situation.

As a result, MAPAQ intervened in three different ways with retailers during the listeriosis crisis. In plants, sampling plans varied and were different to those used before the crisis. Applying different sampling procedures in the absence of known and uniform criteria cannot guarantee high quality work, nor consistent intervention from one case to the next.

The Québec Ombudsman therefore **recommends** that MAPAQ update *Guide d'intervention à la suite de la détection de la présence de Listeria monocytogenes dans un aliment prêt à consommer* in order to plan and make public the sampling and intervention procedures to be applied whenever *Listeria* is detected

- in retail businesses and
- in food processing plants.

(Recommendation 6, p. 49)

### Raw and Heated Milk Processing Plant Controls

Starting September 2008, MAPAQ significantly increased microbiological controls in raw and heated milk processing plants. This marked a dramatic shift from the previous procedure of minimal control by MAPAQ over these businesses. This is a sudden and substantial change that has had a big impact on these businesses. In order to strike a balance between meeting MAPAQ objectives and holding plants to account while continuing to monitor them, we believe plant owners could move more progressively to greater self-inspection, provided they get the support and direction they need.

The Québec Ombudsman therefore **recommends** that, in concert with plant owners, MAPAQ set out guidelines to direct and regulate self-inspection measures implemented by milk processing plants, and that MAPAQ regularly follow up to monitor performance.

It further recommends that these plants be authorized to carry out their own microbiological controls and, until they have a reasonable opportunity to implement their own self-inspection measures, that lab analysis required under the program continue to be funded by MAPAQ.

(Recommendation 7, p. 53)

### Communication and Informing the Public

Neither MSSS nor MAPAQ has a communications plan for emergencies or crises related to food-borne illnesses, with the result that the messages conveyed during the crisis were not always well coordinated and did not work as intended with the public. Public health needs were overshadowed by the spectacular cheese destruction operation.

The Québec Ombudsman therefore **recommends** that MSSS and MAPAQ each have a communications framework for emergencies and crises, and that they work together on a crisis communications plan to define the roles and responsibilities of all stakeholders as well as the broader communications strategies to be adopted, particularly in the event of a food-borne illness outbreak.

(Recommendation 8, p. 57)

## Economic and Financial Considerations

The growth and development plan announced on October 3, 2008, for the Québec specialty cheese industry (*Plan de développement et de croissance du secteur des fromages fins québécois*) sets out a number of financial support measures, some of which have been deemed inadequate by the industry, notably the one-year interest-free loans on offer to plants. Independent analysis would provide a means of assessing to what extent the measures meet industry requirements and of making adjustments as need be.

The Québec Ombudsman therefore **recommends** that MAPAQ have an independent assessment carried out of the financial support measures provided for in *Plan de développement et de croissance du secteur des fromages fins québécois* to see to what extent they meet the needs and demands of this sector of the industry, and that it adapt the plan to the findings. **(Recommendation 9, p. 64)**

The marked increase in MAPAQ controls and monitoring procedures in raw and heated milk processing plants since September 2008 has had a sizeable impact on processing since samples are now analyzed and kept in the plant while waiting for the results. Given the artisanal nature of many of these businesses and the huge shift these measures represent compared to the previous monitoring procedure, the Québec Ombudsman believes that an adjustment period and one-time support will be required to ensure a smooth transition for the majority of businesses.

The Québec Ombudsman therefore **recommends** that MAPAQ provide financial support as needed to raw and heated milk processing plants it is responsible for, based on the real needs of each business, so that they can adapt their production processes to the new microbiological control requirements as quickly as possible. **(Recommendation 10, p. 64)**

## Preventive Measures and Regular Followup for Retailers and Cheese Processing Plants

In MAPAQ's guide to cleaning and sanitation in food establishments (*Nettoyage et assainissement dans les établissements alimentaires*) for retailers, the ministry fails to consider the specific risk of crosscontamination between two ready-to-eat products. Therefore, according to the best practices recognized by MAPAQ, were a new contamination source to appear in a retailer's cheese counter, owners would once again have to destroy all products that may have come into contact with the contaminated product.

The Québec Ombudsman therefore **recommends** that MAPAQ evaluate all likely risks and, in collaboration with cheesemakers, produce a best practices guide to preventing and managing *Listeria* crosscontamination for

- retail businesses and
- food processing plants.

(Recommendation 11, p. 71)

MAPAQ's risk-based inspection guide (*Guide d'inspection basée sur le risque*) and all the other tools used by inspectors to evaluate food risk are not readily available to cheese processing plants. For processing plants in particular, owners therefore have little idea of what MAPAQ considers to be the best manufacturing practices for them. The result is that owners have to apply rules they are not familiar with.

The Québec Ombudsman therefore **recommends** that MAPAQ issue food establishments with the documents and reference guides that inspections are based on, particularly those concerning the inspection of dairy plants.

(Recommendation 11, p. 71)

MAPAQ inspectors who monitor dairy processing plants are not specialists, even though these plants use complex manufacturing processes that require special expertise. For lack of appropriate training, inspectors cannot verify operations at cheese processing plants in any detail, which means that hygiene regulations cannot be rigorously enforced.

The Québec Ombudsman therefore **recommends** that MAPAQ adequately train inspection staff responsible for dairy plants and that they be specifically assigned to this type of inspection.

(Recommendation 12, p. 72)

Our investigation revealed flaws in how often raw and heated milk processing plants were monitored by MAPAQ. For instance, the current inspection procedure states that regular inspections should be held no more than 12 months apart, but in September 2008, 30% of plants hadn't been visited within the previous 12 months, which meant that the safety of these establishments could not be guaranteed.

The Québec Ombudsman therefore **recommends** that MAPAQ ensure that regular inspections of processing plants are carried out within the required 12 months.

(Recommendation 13, p. 72)