

## CASE WRITING WORKSHOP

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### Bio-Security

Andrew Scott, Deputy Minister, Ministry of Agriculture, Food and Fisheries (MAFF), located in Victoria, BC, in June 2004, was challenged to engage all relevant federal, provincial, community and industry stakeholders in the development of an action plan that would improve bio-security and emergency response capacity in the BC poultry sector, using the lessons learned from the 2004 Avian Influenza crisis in the Central Fraser Valley.

### Background

On February 19, 2004, the Canadian Food Inspection Agency (CFIA) confirmed the highly pathogenic avian influenza virus was in the Central Fraser Valley. Lead responsibility for identification, control and eradication of foreign animal diseases in Canada rested with the CFIA. However, engagement by provincial and local governments was vital for a successful outcome, because the immediate impacts of an outbreak on animal and human health and on the economy were felt at the local level. Moreover, a great deal of support was needed from local health and agriculture authorities and industry to deal with a disease outbreak.

In the Central Fraser Valley, by June 2004, 42 commercial premises were depopulated, causing severe physical, financial and emotional costs for all involved. It was estimated that the poultry industry put 20 million dollars a week through the Abbotsford economy alone. The cull basically closed down the industry completely for six months. CFIA and MAFF authorities anticipated for most of the industry, the return to the pre-February 2004 state, no sooner than 18 months. Some specialty farmers would require up to four years to restore their flocks (because of special genetic and/or breeding conditions). Stakeholders faced enormous internal and external pressure to get the bio-security situation under control immediately.

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*This case was written by Marilyn Hamilton at the Royal Roads University Case Writing Workshop under the supervision of Professor James A. Erskine. It was prepared solely to provide material for class discussion. The author does not intend to illustrate either effective or ineffective handling of a managerial situation. The author may have disguised certain names and other identifying information to protect confidentiality.*

## **Multiple Stakeholders**

The number of stakeholders who had mandates and/or vested interests in developing a bio-security and emergency response system exceeded two dozen, if one counted the BC, federal, local, other provincial/territorial government agencies and the private sector organizations. (See Exhibit 1 for a glossary of the key stakeholders.) Few of these agencies had direct lines of reporting and/or protocols for interacting and/or interagency communications.

## **Zoonotic Disease**

Zoonotic diseases (diseases originating in animals and transferable to humans), included HIV, SARS, West Nile Virus, BSE, and avian influenza. Avian influenza appeared to be endemic in wild birds that generally had a natural immunity to or tolerance of it. However, domestic poultry were generally intolerant of avian flu and required preventive measures such as vaccination and boundary management to control the disease.

Avian influenza became highly problematic because of the capacity of the virus to mutate and transfer to humans in a more virulent – often lethal – form. A series of avian flu outbreaks in recent years (in Asia, the Netherlands, Texas and BC) have occurred in the month of February (for as yet unknown reasons). Avian flu, classified into types, certain of which were more contagious (i.e. highly pathogenic) than others, was considered by the World Health Organization (WHO) as a potential human hazard. WHO monitored the characteristics, environmental and farm conditions, response protocols and spread rate closely, under similar protocols for other zoonotic diseases like SARS.

Disease management for avian flu has been both preventative and containment based. The detection in the Central Fraser Valley in February 2004 resulted in the pre-emptive slaughter of almost all the supply-managed poultry inventory from February to May 2004. Of the 17 million birds slaughtered, 1.7 million potentially contaminated birds were destroyed while the remaining healthy birds were marketed through normal channels. The cull also included many backyard and specialty flocks that were inside specific “hot zones”. Each barn that was depopulated was sanitized to CFIA specifications and no barn was allowed to be re-populated until the entire cull was completed and no further incidents were reported for three weeks.

## **Economic and Political Response**

International animal health protocols were also used to monitor avian flu outbreaks. Each country had its own protocols related to animal and human health for closing its borders to the import of live and slaughtered poultry, dependent on a variety of conditions. During the pre-emptive slaughter in BC in 2004, the export of poultry from BC ceased,

until six months after the last barn was emptied and sanitized. It was not scheduled to resume until November 2004.

The province of BC managed and monitored the crisis closely, bringing in provincial Emergency Program staff to play a coordinating role. It was vitally concerned about the full scope of primary and secondary economic impacts, maintenance of consumer confidence in food safety and the fiscal impact on the government. The memory of the SARS shut-down of Ontario's tourist industry in 2003 was painfully recent, and every precaution was taken to protect BC's world-class reputation.

## **Need for Multi-Stakeholder Approach**

In June 2004, after the last barn was depopulated, Scott was aware that "MAFF does not have a black-and-white mandate for its role in animal health. Our animal health lab cooperates closely with CFIA and private veterinarians. But even with the disposal of the mortalities there is a blurring of the situation with federal protocols. MAFF has technical experts who understand the issues, but we need a new national Foreign Animal Disease Eradication Support (FADES) plan."

Even so, Scott realized that, "renegotiating the FADES plan was just one element of a much larger action plan." MAFF had some responsibility for animal health, but MAFF could neither prevent nor contain avian flu if it did not obtain multi-agency buy-in and accountability for an action plan addressing bio-security, emergency response and public health protection.

Furthermore, these agreements had to be initiated by CFIA and implemented not just by BC but also by all the provinces. The various stakeholders had been forced to engage in managing the avian flu crisis from February to May 2004; however, they had never worked together like this before, so they had to make decisions under less than optimal conditions as they went along. While the disease was eradicated for the time being in the Central Fraser Valley location, there was still a high risk of re-occurrence in one or more locations, at any time. The risk to human health was also now very apparent (from continued reports of the situation in Asia) and it was even more urgent to take steps to address, prevent and contain the animal-human interface and important human health issues as well. Federal, provincial and local public health authorities expected significant new safeguards by animal health authorities and the industry.

## **The Issue**

The major challenge facing Andrew Scott was how to urgently capture the lessons learned from the recent crisis and generate commitment and accountability across multiple stakeholders for a durable action plan that would (i) quickly reduce future risk of a disease outbreak through improved, enforceable bio-security measures and (ii) be better prepared with coordinated emergency response mechanisms should another outbreak

occur." Moreover, Scott admitted, "this engagement must occur in a post-crisis atmosphere of exhaustion, economic hurt, intense public scrutiny and wish by some parties to assign blame for what happened. Most follow-up actions will entail new costs for industry and government and must be supported at a national level to be effective, even though the crisis occurred in only one province."

Finally the stakeholders had to remain aware that avian influenza could return to BC at any time.

## **Exhibits**

1. Glossary of Key Stakeholders

## **Exhibit 1: Glossary of Key Stakeholders**

### **Federal**

The *Canadian Food Inspection Agency (CFIA)* had the over-all responsibility for food. This included receiving lab reports from provincial veterinarians/ technicians and eradicating zoonotic disease outbreaks like avian influenza.

The *Public Health Agency of Canada* was located in Winnipeg and was responsible for assessing and responding to threats to human health, associated with infectious disease outbreak, and reporting to the World Health Organization.

### **BC**

The *BC Ministry of Agriculture Food and Fisheries (MAFF)* was responsible for providing options for the safe disposal of poultry carcasses and waste from flocks that had been infected by avian flu. MAFF coordinated with industry and took the lead on economic recovery assistance.

The *BC Ministry of Water, Land and Air Protection* ensured disposal was safe for air, land, and water and issued permits for disposal operations.

The *BC Solicitor General* was responsible for emergency response programs, including the interpretation and application of emergency response legislation.

The *BC Ministry of Health Services*, through regional health authorities throughout BC and the *BC Centre for Disease Control* were responsible for assessing and responding to threats to human health.

### **Other Provinces**

Commensurate Ministries in 9 other provinces plus 3 territories.

### **Central Fraser Valley**

*Fraser Valley Health Authority* was responsible for human health in the Fraser Valley.

The *City of Abbotsford* was responsible for city bylaws and responding to resident inquiries.

### **Poultry Industry**

The *Four Feathers Groups* (covering producers of broiler chickens, table eggs, turkeys and batching eggs) were BC and Canadian poultry industry organizations for major poultry production.

Backyard Flock Owners

Specialty Flock Owners

Poultry Processors and Further Processors

Egg Graders

Distributors, Retailers, Exporters