

CAHSN - The Canadian Animal Health Surveillance Network



National Farmed Animal Health and Welfare Forum

**Dec 4, 2013
Ottawa ON**

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Presentation Outline

1. What is CAHSN?
2. What CAHSN means to its partners
3. What the Guidance of NFAHWC means to CAHSN
4. The Future of CAHSN in a comprehensive national surveillance network



Original Project Concept

Address Canada's preparedness for:

- Foreign animal disease introductions, accidental and intentional
- New or emerging diseases, especially those with zoonotic potential
- Agro-terrorist attacks on the animal-based food supply and economy

Original goals:

- Establish a network of animal health diagnostic laboratories
 - Federal, provincial, and university
- Enhance laboratory capacity to test for Foreign Animal Diseases (FADs), and provide surge capacity
- Establish a comprehensive surveillance infrastructure by combining disease surveillance intelligence from many sources across Canada to rapidly detect emerging animal health threats
- Ultimately, enable rapid response to minimize consequences to human health and the economy

Original funding (4 years): an initiative of Defence Research and Development Canada – currently called the Centre for Security Sciences (formerly CRTI)



Partners in the Project

A federal-provincial-territorial-academic partnership:

- Canadian Food Inspection Agency
- Public Health Agency of Canada
- University of Prince Edward Island
- University of Guelph
- University of Montréal
- University of Saskatchewan
- Canadian Cooperative Wildlife Health Centre
- Prairie Diagnostic Services Inc.
- Government of Newfoundland and Labrador
- Government of Nova Scotia
- Government of New Brunswick
- Government of Québec
- Government of Manitoba
- Government of Saskatchewan
- Government of Alberta
- Government of British Columbia

Partners include:

- the animal health laboratories in Canada
- the academic institutions and governments who operate animal health laboratories
- Public Health Agency of Canada (PHAC)
- Canadian Cooperative Wildlife Health Centre (CCWHC)

Private animal health laboratories were not included.





CAHSN – Major Components

- **Surveillance**
 - Coordination, uniting expertise, standardizing case definitions and analysis tools, information sharing agreements
- **Laboratory Diagnostics**
 - Creating network, standardizing methodologies, appropriate biocontainment, certified personnel, accredited tests, quality assurance systems
- **Information and Technology Platform**
 - Canadian Network for Public Health Intelligence, collaborative analysis by team of epidemiologists, linkages between animal and human health surveillance
- **Governance**
 - Board, evolution into fully funded program
 - Originally intended to be CFIA Program



CAHSN Accomplishments

Laboratory:

- Network created and maintained, focus on FADs
- Early diagnostic intervention and surge capacity
 - Over 100 analysts trained in 14 network labs in assays for the four major FAD threats* using standardized testing protocols; training supervised by the National Center for Foreign Animal Disease in Winnipeg
 - Laboratories in SK and BC conducted testing during 2007 and 2009 Avian Influenza (AI) outbreaks
- Laboratory Technical Support Program
 - Standardized test methodology, harmonized protocols
 - Enhanced levels of biosecurity in laboratories across Canada
 - Laboratory infrastructure support – equipment, reagents, panels
 - Quality Assurance Program is assisting with the development of internal quality management systems for FADs and ISO/IEC 17025 accreditation
- Support for other non-FAD issues, including H1N1 Influenza and Porcine Epidemic Diarrhea (PED) assays

*Avian Influenza, Avian Paramyxovirus (Newcastle Disease),
Classical Swine Fever, Foot-and-Mouth Disease





CAHSN Accomplishments

Surveillance

- National Bovine Spongiform Encephalopathy (BSE) test collation from all laboratories in Canada
- Scrapie/Chronic Wasting Disease (CWD) , Avian Influenza
- An application to record results from the novel H1N1 Influenza event – collected all swine influenza test results from all laboratories in Canada from 2009 to 2012
- Development of a novel program to allow syndromic surveillance based on laboratory information – collects all laboratory results from Manitoba and British Columbia

Information

- CNPHI platform, regular meetings, round tables, library portal

Governance

- Executive Committee, Management, Committee, Subcommittees
- Funded by CFIA, not an official program





What CAHSN Means to its Partners

- Laboratory infrastructure – funding for building or upgrading laboratory facilities
- Laboratory equipment
- Training, assistance, certification
 - Laboratory testing, proficiency panels, “train the trainer”
 - Biosecurity
 - Quality Assurance
- Sharing of standardized test protocols
- Sharing of information – less isolated
 - Compilation of test result data
 - Laboratory
 - Network partners
 - Community news
 - National developments
 - Access to on-line scientific journals (library portal)





Impediments to the Development of the CAHSN

- Lack of “high level” governance
- Lack of defined framework to allow national surveillance scope beyond FADs
- Inability to realize a sustainability model for funding and resources
- Capacity limitations for network laboratories

- The parts of CAHSN that support the CFIA such as surge testing capacity or the collection of laboratory results for BSE have developed more quickly and fully since there has been active financial and other support from CFIA
- The parts of CAHSN that do not deal directly with the CFIA mandate such as production limiting disease surveillance and zoonotic disease surveillance have been slower to develop since there is not a clear framework to indicate who is responsible to support this



What NFAHWC Means to CAHSN

Governance

- Sustainability and governance became the focus of the CAHSN group following cessation of the project phase in 2009
 - Related activities: workshops, development of briefing materials, searching for suitable governance models, funding concerns
- The need to focus on governance and sustainability made the development of the network and the development of the capabilities of the network secondary
 - It is difficult to commit to multiyear initiatives when it is not possible to determine if the supporting network will survive or be supported



What NFAHWC Means to CAHSN

Governance

- Some of the uncertainty about the future of CAHSN was alleviated following the release in October 2011 of the document *Surveillance in a Time of Transition in Farmed Animal Health*, with the recommendation that the CAHSN was the preferred choice for surveillance infrastructure in Canada
- Support for use of CAHSN as main national surveillance vehicle reiterated in project report *Developing a Framework for Improved National Coordination of Animal Health Surveillance in Canada* (released in July 2013; overseen by the Council of Chief Veterinary Officers)
- The governance initiatives of the NFAHWC with support of the CCVO has meant that CAHSN could focus on its own governance and not governance of national animal health surveillance in general allowing completion of this process



What NFAHWC Means to CAHSN

Projects

- The support of these reviews for CAHSN has enabled several CAHSN partners to submit and receive approval for projects with Growing Forward 2 funding
- Projects based in provinces and with direct supervision by the partner but have national surveillance as an integral part of the project
- In two projects the partner will act as the focus for national surveillance using chosen endemic diseases in a production group (for example, BVD in cattle) to further the integration of the network and to develop and improve the data collection and analysis within the network



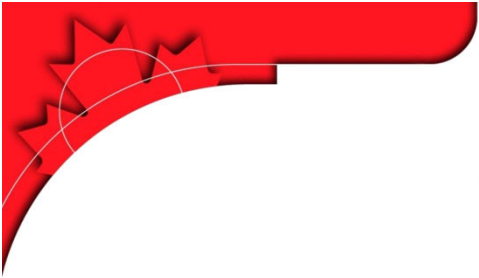
Future of CAHSN in a comprehensive national surveillance network

- Network infrastructure established, operational, functional, successful, strategically placed
- Multiple species, multiple diseases
- Most comprehensive Canadian laboratory network in existence
- Commitment of laboratory and government partners

To be main component of national network, need

- Expanded scope and mandate
- Sustainable and developmental funding
- High level governance, better integration with decision makers
- Expansion beyond laboratories (e.g., Canadian Swine Health Intelligence Network model)

Monitor, early detection, communication, course of action



COMMENTS? QUESTIONS?

Thanks for your attention