Canada-West Swine Health Surveillance Network

The Canada-West Swine Health Surveillance Network (CWSHIN) is a continuation of the Canadian Swine Health Network's national project in western Canada. It is supported by the four western Canadian pork boards, the four provincial governments, the Western Canadian Association of Swine Veterinarians and the Western Canadian Swine Health Alliance (integrated production). The purpose of CWSHIN is to operate a swine health intelligence network that will add value to the swine industry in western Canada by helping to manage health conditions on the farm, provide infrastructure to identify, verify and assist with the control of emerging or re-emerging swine health conditions and to support pig and pork markets. It represents the western regional network component of the national Canadian Swine Health Intelligence Network (CSHIN).

Canada-West Swine Health Intelligence Network
Quarter 4 – 2015: VETERINARIAN REPORT ON SWINE HEALTH   Date: Jan. 22, 2016

For the period October 1st to December 31st, 2015: 27 practitioners and 4 specialists participated in the survey

This information is a professional communication for practicing swine veterinarians. The information was obtained from a survey of the clinical impressions of participating practicing veterinarians with input from other swine health specialists. This information is not validated and may not reflect the entire clinical situation. Your professional judgment is required in the interpretation and use of it. It is the intent of this program to improve the health of the national herd.

Disease	% Vets reporting an increase in Q4 over Q3
Influenza A	53.8%
Ear necrosis syndrome	28.0%
Ileitis (Lawsonia)	26.9%
Strep. suis	24.0%

The Swine Veterinarian Communication Network

Similar to the other regions participating in CSHIN, a panel of swine specialists meets at the end of each quarter to review changes to swine health during the previous three months. Information used in the discussion consists of the results from veterinary practice based Syndromic Data Network, a Clinical Impressions Survey sent to all members of the network, veterinary diagnostic laboratory findings, input from the Chief Veterinary Officers, the CFIA and the specialists and swine practitioners on the call. Participating practitioners in the survey represent almost all of the production in western Canada. Representatives of the pork boards and provincial governments then meet about two weeks later to discuss the findings, review the reports and determine what actions are needed. A report, provided to all veterinarians that deal with swine herds, highlights changes in swine health during the previous quarter. A similar summary report is also prepared for producers. The system was based on the Réseau porcin that has operated in Quebec for a decade. The organization also establishes priorities regarding swine health at an annual meeting in December. The network is used as a communication tool among western Canada's swine veterinarians, and provides an immediate source of information when events occur or a response is needed.

The Practice Based Syndromic Data Network

The data network was developed as part of CSHIN and continues to be funded in the west. There is currently about four years of data in the system. Clinical findings on the farm (coughing, diarrhea, mortality etc.) are submitted to the network via a swine veterinary practice management program called SDS or via a purpose built smart phone application. This syndromic information plus the veterinarian's or technician's observations and clinical diagnoses, followed by laboratory confirmation are entered into the program within days (or hours) of the visit or communication with the farm staff. The app facilitates rapid data entry (less than a minute) and is operational whether on line or not. The report of the visit is immediately available to the practice or company and forms the basis for medical records and reporting back to the farm. Veterinarians and producers identified that confidentiality of the information was one of their most important concerns. Initially farm and veterinarian information was excluded however as practitioners began to utilize the reports to assist with farm health management, detailed information including GPS coordinates and Premises Id are included for the use of the farms and practices. This nominal information is not included in any reports containing aggregate information that is shared more widely. The reports and maps with aggregate information require the approval of the participating practices. Cognos, an IBM Business Intelligence program is used for data analysis, basic event detection, reporting and mapping. Further algorithms have been developed to detect more subtle temporal health anomalies. The network can substantiate the absence of problems with continuous reporting of site visits and communications. The Alberta Veterinary Surveillance Network was used as a model for the CWSHIN data network.

As participation in the data network grows (now more than 50% of industry), this has become the primary source of high quality data for the entire network as a basis to make swine health decisions at the government, industry and farm levels.