

Collaborative approach for endemic disease (PRRS) control in the province of Quebec, Canada

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Introduction

Controlling and containing endemic and emerging diseases is known to require a collaborative work between all producers sharing the same territory. In the province of Quebec, PRRS virus infection has been an endemic disease affecting the production sector for the last 25 years (1990-2015). It is known to cause losses of CAN\$40 million per year. The development of collective and collaborative skills for PRRS control is therefore an excellent model to the establishment of collaborative disease control methodologies in general.

All the data obtained from various sources is then used to produce information for clients (producers, veterinarians and other consultants involved in swine health management). Information is transferred to specific clients through Dropbox linked to their cellphone, tablet or pc.

Materials and Methods

Collaborative PRRS monitoring and control procedures have been implemented in the province of Quebec in a 3-phase process over 4 years:

- 1) Pilot projects (2011-2012)
- 2) Optimization and adaptation process (2012-2014)
- 3) Implementation (2015)

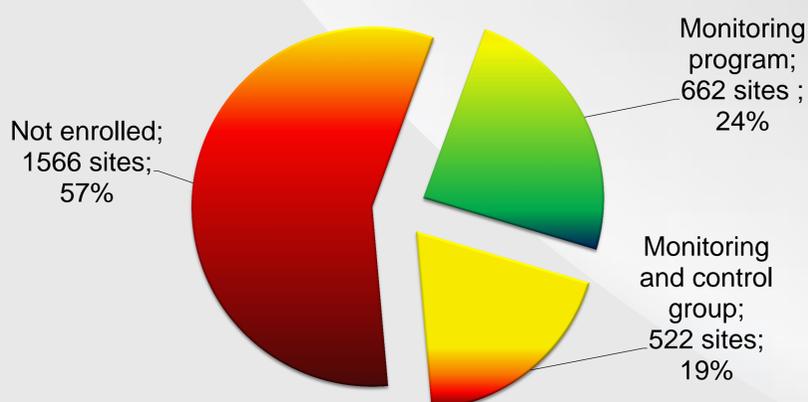
The 2 first phases (2011-2014) were carried out on about 200 farms and 5 zones and were largely financed through public money. Since 2015, all swine production units in Quebec have been encouraged to join the provincial monitoring program and local group initiative for the control of PRRS.

Results

Participation

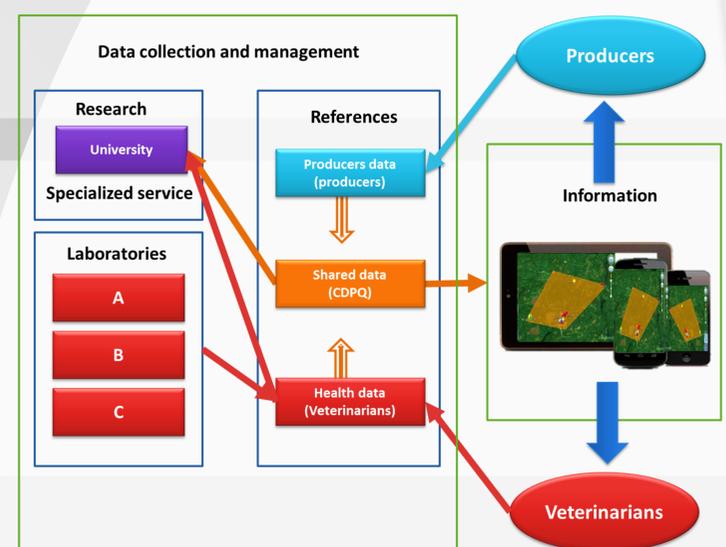
At the end of April 2016, 43% (1 184/2 780 sites) of the production sites in Quebec have subscribed to the PRRS monitoring program and enrollment is on-going. This represents more than 200 producers, 28 veterinarians and different partners like laboratories, the Quebec association of swine producers (Les Éleveurs de porcs du Québec) and the Quebec Swine Development Centre (CDPQ).

PRRS monitoring program enrollment



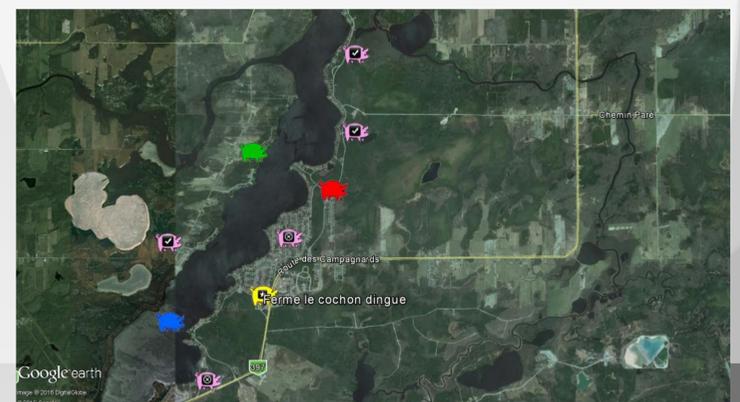
The 5 pilot zones are pursuing collaborative actions to control the PRRS and some producers and veterinarians from other zones are in the implementation phase of local and regional PRRS control strategies.

Data and information flow



The collaborative work experience acquired through the PRRS control strategies (endemic disease) has provided a beneficial building block for the Quebec swine sector's efficient reaction to the arrival of the PED (emerging disease). Implementing a collaborative endemic disease control strategy on a larger scale remains complicated since it requires sharing of sensitive swine health related data and information and it requires private financial investment from producers to support the collaborative services.

Client information



Conclusion

Although the importance of collaborative work for the control of many diseases is recognized in the scientific community, implementing this on a large scale remains a major challenge.

A disease having major economic impacts and affecting numerous farms within a territory provides an opportunity to develop necessary collaborative skills for controlling swine disease. The experience acquired with endemic disease management can then be used efficiently when any emerging disease arises.