Improving the use of data to support management of piscirickettsiosis in Chile

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Salmonid rickettsial septicaemia Caused by the bacterium *Piscirickettsia salmonis,* SRS is the major cause for antibiotic treatment of salmon and trout in Chile.



Methods used in this PhD project:

- Stakeholder consultations
- Creation of a platform integrating health and management data from individual companies
- Epidemiological studies



Thematic analysis, based on Roger's diffusion theory for the diffusion of new technologies, concepts and other innovations (Roger, 1962): Knowledge Persuasion Decision Implementation Confirmation Existing data management Results did not meet 8 systems expectations *** ***** ****** 0 Crowded market for data Quality of the data and analyses services PIISAC: integrated ΔŢΣ Role of the antitrust laws platform for Cost of ongoing support epidemiological research Generic climate of distrust PIISAC as a foreign initiative in the aquaculture Concerns related to data industry Privacy and security 0 privacy quarantees 0 0-0 Difficult collaboration within Project timeline was too short industry Factors identified as obstacles Participation as a critical ---for the sustainability of PIISAC Role of competitive factor advantages Internal company dynamics Related to the Related to Industry-government relationship the platform's platform's Joint efforts for data -Σ implementation environment Competing priorities integration DOI: 10.1016/j.compag.2020.105853



Specific studies* conducted within the project:

- Is between-farm water-borne pathogen dissemination an important driver in the epidemiology of SRS?
- Which vaccines are more effective in delaying SRS outbreaks and reducing mortality at sea?
- What factors influence the effectiveness of antibiotic treatments in terms of reduction in mortality during SRS outbreaks?
- What are the effects of lice burden and lice bathing treatments on SRS mortality?

Lessons learned: building relationships with stakeholders takes time and effort but it is crucial for the success of data integration:



- Data harmonisation is a complex and time-consuming task requiring stakeholder inputs on a regular basis
- Stakeholder consultations contribute to better understand a complex system before conducting in-depth data analysis
- Providing outputs that can be used to support decisionmaking is critical to maintain engagement, improve knowledge transfer and increase the impact of the work

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