An integrated approach to monitor porcine health on regional and national level

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Although a wide spectrum of data had already been assessed and recorded by different stakeholders involved in the Swiss pig production, information about the current health status of the Swiss pig herds was hardly available.

In order to generate (more) field data and (more) data from laboratories that is available and usable for health surveillance, an integrated approach was developed and implemented during recent years, thereby facilitating an improved service for pig farmers, veterinarians and competent authorities: pig farmers are financially supported by the Federal Food Safety and Veterinary Office of Switzerland (FSVO) when their herd attending veterinarians either submit diseases/dead pigs to laboratories (program 'PathoPig') or do on-farm necropsies themselves (program 'ZoE-BTA'). The latter option is pending a special certificate that veterinarians obtain after a sequence of practical courses, which are organized by the statutory body and delivered by the veterinary faculty. In any case, all data from these examination feed into the same database that also stores recordings made by pig veterinarians during their herd examinations (program 'Pig-Health-Info-System' - (PHIS)). In parallel, the veterinary faculty has created a center for diagnostics in livestock (proof of concept 'DZ NTG'), which not only offers high profile diagnostics for pigs, but also feeds the database of PHIS. All data is analyzed continuously in order to notice any local or temporal accumulation of certain symptoms or diagnoses as early as possible. If changes are assessed as relevant, the veterinarians in the affected area and the FSVO will be informed. Additionally, the recorded symptoms and diagnoses will be displayed in a publicly available dashboard that allows filtering for symptoms, regions, and animal categories.

The developed system is expected to improve early detection of health threats, and hence enables the initiation of adequate control measures to stop spreading at an earlier stage.

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