

## EVIDENCE-BASED VETERINARY MEDICINE PERCEPTION BY SWINE VETERINARIANS: A EUROPEAN SURVEY ACROSS DIVERSE PRACTITIONER PROFILES

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### Background

**Evidence-Based Medicine (EBM) involves rigorously, explicitly, and judiciously using the most relevant current evidence when making decisions.** In veterinary medicine and production farming, there is a societal and economic dimension that is less present in human medicine. EBM cannot meet all the expectations and questions of practitioners. Moreover, it encourages considerable debate when attempting to bridge the gap between EBM and practical, field-based veterinary medicine. In this context, **it becomes essential to deepen our understanding of both the practical approaches and useful tools that can be applied to address issues specific to pig farming.**

### Results

An online survey was sent to approximately 650 veterinarians, from 24 countries, with at least 50% of their time dedicated to pig production. A total of **108 veterinarians answered**, which corresponds to a response rate of 18%. Several multifactorial analyses (using R software) were done to identify the profiles of practitioners by themes (sociological background, exchanges and interactions, EBM concept,...). Chi-square tests were performed to investigate any association between veterinarians' features and EBVM perception. Our results showed a significant association between veterinarians who knew the concept and the country of the respondent ( $p < 0.05$ ) or the fact of having a European or national specialist diploma ( $p < 0.01$ ). Most veterinarians became aware of EBVM through veterinary schools ( $n=31$ ), training programs and conferences ( $n=12$ ) or professional associations ( $n=10$ ).

Moreover, three groups of veterinarians have been highlighted in relation to the EBM approach: the "Open" ones have no barriers regarding its use and find the approach useful. The "Skeptical" group believes that the approach is not sufficiently developed in practice and have some barriers, although it is, for the most part, useful. Finally, a cluster for "Reluctant" ones: for them, the approach would not be useful in practice, and they have barriers regarding its use. Finally, more than 82% of veterinarians recognized the practical value of the EBVM approach, even if they were unfamiliar with the concept itself. However, 19 out of 108 veterinarians considered EBVM to be either not useful or only conditionally useful, depending on factors such as the type of pathology, the specific challenges encountered in the field, or the availability of reliable scientific data.

### Objectives

Combining epidemiological modelling and social science approaches, the aim of this thesis is to deepen scientific knowledge on practitioners' profiles regarding EBVM and to develop tools to facilitate decision-making for swine veterinarians.

Thus, the thesis is naturally composed of three complementary parts as presented below:

#### 2. Develop decision support tools

- Understand veterinarians' perceptions regarding EBVM
- Identify the obstacles to make scientific based decisions for the collective control of disease

- Help veterinarians in their decision-making
- Construct an audit framework for allowing a better disease control in swine farms.

#### 1. Create a European inventory of practices and perceptions

- Evaluate the acceptability and feasibility of using these decision support tools in practice

#### 3. Improve porcine health management strategies

### Conclusion

Our baseline study revealed **significant knowledge gaps regarding EBVM** among swine practitioners that need to be addressed. Targeted educational initiatives should be implemented to raise veterinarians' awareness of EBVM and its practical applications.