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Final

Recommendation No. 2

Advancements in the Veterinary Services through Digitalisation (Data Management, Veterinary Information Systems, Big Data, Meta Language, Artificial Intelligence)

CONSIDERING THAT:

1. Data in animal health and veterinary epidemiology do exist and are collected, however, they are largely under-utilised or not available in practice. They are often handled in isolation, with minimal to no communication between the different sectors involved, and there are significant challenges throughout the process, from data availability and collection, to analysis and the generation of meaningful insights;
2. The vast amount of animal health data generated daily, and big data analytics, can represent a revolution in the way we approach disease control and epidemiological surveillance;
3. Advances in genomics, sensors and information technologies are enabling more detailed and accurate characterisation of animal health;
4. Precision Veterinary Epidemiology is a concept that uses multi-level animal health data to better understand disease dynamics in a population and to design more cost-effective systems for surveillance, early detection and rapid control of animal diseases;
5. Digitalisation can bring great value to Veterinary Services, helping them to increase efficiency and sustainability of livestock production with a smaller ecological footprint, reduce environmental impact and improve disease prevention and management at local, regional and global levels;
6. There are certainly some challenges, but there is also a tremendous opportunity for Veterinary Services to use available computational tools to significantly improve animal health;
7. The legal framework for data management is comprised of a variety of laws, regulations, and guidelines that govern how data is collected, stored, processed, shared, and protected depending on the intended use for the data collection process. It aims to ensure that organisations handle data responsibly, securely, and transparently;
8. The legal framework for data management is complex and continually evolving, reflecting growing concerns over data privacy, security, and ethical use. Veterinary Services and Organisations must ensure they stay compliant with both international and national laws by adopting appropriate data management practices, policies, and governance frameworks, acknowledging the cost to generate and collect data and the potential beneficiaries of processed data.

THE REGIONAL COMMISSION FOR EUROPE

RECOMMENDS THAT:

1. Governments of WOAAH Members include animal health and welfare dimension in the relevant overarching policies related to digital transformation including from the perspective of legal framework for data management and link animal, human and environmental health data to support OH implementation.
2. Veterinary Services of WOAAH Members:
 - a. Sensitise high level authorities about the importance of allocating resources to enhance the quality, harmonisation, and security of data collection processes. This includes ensuring that data sets are well-documented with metadata and data dictionaries, enabling proper sharing, merging, and comparison;
 - b. Consider expanding the scope of their expertise to subjects related to proper management of data;
 - c. Develop IT systems and legal framework for data collection and analysis and share data among the Members of the Region using the existing tools to facilitate risk assessment, risk communication and decision making;
 - d. Act as a catalyst for digitisation in agriculture and aquaculture to improve data collection and assisting with data interpretation in particular through support of public private partnership involving multidisciplinary teams from academia, including data scientists and IT engineering, and private sectors;
 - e. With the support of WOAAH and its partners, share experiences on development of:
 - i. new artificial intelligence (AI) approaches and machine learning (ML) algorithms specifically adapted to animal health data.
 - ii. user-friendly tools to monitor, visualise, assess and generate "interpretable" alerts on risks in real time, digital optimisation of processes related to epidemiological investigations or certification, and to facilitate risk communication.
 - f. Use data from PVS Information System to identify priorities for improvement and advocate for resources and investments.
3. The World Organisation for Animal Health (WOAH):
 - a. Keep promoting the digitalisation of Veterinary Services and develop policy and guidelines for the equitable and inclusive access of digitalisation tools to the Veterinary Services, including those in low-resource settings;
 - b. Support exchange of practices and impact assessment of the development and operation of tools for the integration and interpretation of animal health and welfare directly or indirectly related data, including generation and collection of these data;
 - c. Consider expanding its veterinary education support to include digitalisation;
 - d. Continue to pursue its own digital transformation, which was prioritised and initiated during the 7th Strategic Plan;
 - e. Consider, together with its partners and all relevant stakeholders, the development of animal health data collection harmonisation and interoperability frameworks, clear case definitions, metadata and data dictionaries.