The Importance of One Health in Promoting Public Health, Animal Welfare, and Companion Animal Health

The health of people, animals, and the environment is deeply interconnected. Diseases can spread across species, food systems rely on healthy animals, and environmental changes impact the well-being of all living beings. The One Health concept recognises these links and promotes collaboration across medical, veterinary, and environmental disciplines to protect health at every level.

This also includes how we manage natural resources and farming systems. Sustainable farming practices can improve environmental health by sequestering carbon, nitrogen, and other essential elements in the soil, boosting long-term crop growth. They also support efficient waste management, such as grazing cattle on post-harvest corn fields, which not only reduces waste but also helps animals generate body heat during the winter and can even increase subsequent crop yields. Likewise, preserving biodiversity and carefully managing human–wildlife interactions are vital for protecting ecosystems and preventing the spread of new diseases.

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For the European Board of Veterinary Specialisation (EBVS), this holistic approach is central to its mission. By certifying and supporting veterinary specialists across 38 disciplines, EBVS plays a key role in advancing public health, safeguarding animal welfare, enhancing environmental sustainability, and improving the health of companion animals throughout Europe.

Understanding the One Health Approach

The One Health model is based on the principle that human health, animal health, and environmental health are inseparable. The World Health Organisation (WHO), the World Organisation for Animal Health (WOAH), and the Food and Agriculture Organisation (FAO) all endorse this integrated approach to tackling health challenges.

Examples include:

- Zoonotic diseases such as rabies, avian influenza, and COVID-19 can pass between animals and humans.
- Antimicrobial resistance (AMR), a growing global threat influenced by antibiotic use in both humans and animals.
- Food safety and security, ensuring that animal-derived food products are safe, sustainably farmed, and ethically produced.
- Environmental resilience, where sustainable farming improves soil health and carbon balance, biodiversity preservation protects ecosystems, and regulated human–wildlife contact reduces the risk of pandemics.

One Health and Public Health

Public health benefits greatly from veterinary expertise. Veterinary specialists contribute to:

Infectious Disease Control

Veterinary epidemiologists track and contain outbreaks before they spread widely.

Pandemic Preparedness

Early detection of emerging pathogens in animals can prevent human health crises.

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Food Safety

Specialists in veterinary public health and food hygiene ensure the safe production, processing, and distribution of food.

The economic implications are substantial. A 2018 European Commission report estimated that preventing zoonotic disease outbreaks could save billions in healthcare costs and lost productivity each year.

One Health and Animal Welfare

Animal welfare is not only an ethical obligation but also a public health priority. Animals under stress or poor welfare conditions are more susceptible to disease, which can then affect human health.

Veterinary specialists trained through EBVS-certified colleges work in:

- Farm animal health and welfare, ensuring humane treatment and compliance with EU welfare standards.
- Companion animal health and welfare, addressing behavioural health, antimicrobial stewardship, pain management, and quality of life.
- Wildlife population health helps to protect biodiversity, conservation, and monitoring for and control of disease spread in natural habitats across species.

One Health and Companion Animal Health

The bond between people and companion animals is profound, influencing mental well-being and quality of life. However, pets can also be a source of zoonotic infections if not properly cared for. Veterinary specialists in fields such as internal medicine, dermatology, and dentistry help maintain companion animal health and prevent disease transmission.

In addition, advances in translational medicine, where veterinary research benefits human medicine, highlight the reciprocal nature of One Health. Breakthroughs in cancer treatment, orthopaedics, and infectious disease management in animals often inform human healthcare strategies.

Addressing Antimicrobial Resistance (AMR) Through One Health

AMR poses a serious challenge to modern medicine. The One Health approach addresses this through:

- Prudent antibiotic use in both animals and humans.
- Alternative treatments such as vaccines, probiotics, and improved husbandry practices.
- Education and awareness campaigns to promote responsible antimicrobial stewardship.

Veterinary specialists are on the front line of this work, ensuring that animal treatments are both practical and sustainable.

One Health and Environmental Health

While the role of veterinarians in public and animal health is well recognised, the environmental dimension of One Health is equally critical. Healthy ecosystems support resilient food systems, reduce the risk of emerging diseases, and contribute to climate stability.

- Sustainable farming practices such as rotational grazing and integrated crop–livestock systems can improve soil quality and help sequester carbon, nitrogen, and other essential elements. This not only reduces greenhouse gas emissions but also enhances crop yields and long-term soil fertility.

- Biodiversity preservation strengthens ecosystem resilience. A diverse mix of wildlife species contributes to natural disease regulation, reduces pest pressures, and enhances ecosystem services essential for agriculture.

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- Managing human–wildlife contact is essential for pandemic prevention. Habitat encroachment increases the likelihood of spillover events, where diseases jump from wildlife to humans or domestic animals. Responsible land use, conservation efforts, and veterinary surveillance in wildlife populations all reduce this risk.

Veterinary specialists, through their expertise in epidemiology, ecology, and animal welfare, play a pivotal role in bridging the gap between agriculture, conservation, and public health.

Sustainability and Economic Impact

Healthy animals contribute directly to sustainable food systems, rural livelihoods, and the wider economy. By preventing disease and promoting welfare, veterinary specialists protect the GDP of agriculture and strengthen food supply resilience.

These benefits extend beyond economics. Sustainable livestock systems reduce greenhouse gas emissions, conserve water, and protect biodiversity—aligning with the European Green Deal and the UN Sustainable Development Goals.

A Call to Support One Health Collaboration

The One Health approach is not a luxury; it is a necessity for building resilient, healthy societies. From preventing pandemics to ensuring animal welfare and safeguarding the food supply, veterinary specialists play a vital role in protecting both human and animal populations.

The European Board of Veterinary Specialisation continues to uphold the highest standards in veterinary practice, training, and certification to support this vision.

Learn more about our work and how veterinary specialists are shaping the future of health at www.ebvs.eu.

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