

SHORT ARTICLE

One Health Paradigm: An Inclusive Approach to Tackling Global Health Complexities

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ABSTRACT

The One Health paradigm, a holistic approach encompassing human, animal, and environmental health, has gained significant attention in addressing the complexities of contemporary global health challenges. This extensive review explores the foundational principles, historical evolution, and diverse applications of One Health. By promoting interdisciplinary collaboration and recognizing the interdependence of health domains, One Health emerges as a potent strategy to counter emerging diseases, combat antimicrobial resistance, and address multifaceted health threats.

KEYWORDS

Anti-Bacterial Agents; Global Health; One Health; Drug Resistance, Bacterial; Environmental Health; Attention

INTRODUCTION

Addressing the complex interconnection of human, animal, and environmental health, the One Health approach emerges as a comprehensive and cooperative strategy. As defined by the World Health Organization (WHO), One Health encompasses "coordinated endeavors of diverse disciplines operating at local, national, and global levels to achieve optimal health outcomes for individuals, animals, and the environment" (1). This examination explores the fundamental principles, historical underpinnings, and practical implementations that characterize the One Health paradigm.

Principles of One Health

The One Health approach is built upon essential principles, with a key focus on interdisciplinary collaboration, as highlighted by the American Veterinary Medical Association (AVMA). The AVMA underscores that "the concept of One Health encourages the collaborative efforts of multiple disciplines to achieve optimal health for people, animals, and the environment" (2). Another crucial principle involves systems thinking, which advocates for a holistic approach to health challenges. According to Zinsstag et al. (3), One Health emphasizes "the interconnectedness of humans, animals, and ecosystems as an integrated whole."

Historical Context

The origins of the One Health concept can be traced back to the early 20th century, when professionals in both medicine and veterinary science acknowledged the common risks associated with zoonotic diseases. The formation of international entities, such as the World Health Organization (WHO) and the World Organisation for Animal Health (OIE), reinforced the importance of collaborative approaches. Recent worldwide occurrences, such as the outbreak of zoonotic diseases like SARS and COVID-19, have highlighted the pertinence and immediacy of the One Health paradigm (4).

Applications of One Health

One Health has diverse applications, playing a pivotal role in zoonotic disease surveillance and control, as highlighted by Lee and Brumme (5) in their discussion on the operationalization of the One Health approach. Additionally, One Health is instrumental in addressing antimicrobial resistance (AMR), advocating for a judicious and coordinated approach to antimicrobial use (3). It also extends to environmental health, food safety, and other domains, recognizing the interconnected nature of health challenges.

Case Studies

Analyzing case studies offers tangible examples of One Health in action. For instance, during Ebola virus outbreaks, One Health principles aided in understanding and mitigating the disease by recognizing the involvement of wildlife, domestic animals, and humans in the transmission cycle (4). Similarly, influenza surveillance illustrates the importance of monitoring influenza viruses in both humans and animals to comprehend and prevent avian influenza (3).

Challenges and Future Directions

While the potential of One Health is vast, challenges such as institutional barriers and funding constraints persist. According to Gibbs (4), addressing these challenges requires strengthening international partnerships, enhancing surveillance systems, and integrating One Health principles into education and policymaking.

CONCLUSION

One Health presents a forward-thinking and comprehensive approach to global health challenges. By acknowledging the interconnectedness of human, animal, and environmental health and fostering interdisciplinary collaboration, One Health has the potential to instigate transformative changes in managing health risks globally. Embracing the principles of One Health is essential for building a resilient and sustainable future for both ecosystems and populations.

REFERENCES

1. World Health Organization (WHO). (2017). One Health. Retrieved from <https://www.who.int/news-room/q-a-detail/one-health> (accessed on 20-12-2023)
2. American Veterinary Medical Association (AVMA). (2021). One Health: A New Professional Imperative. Retrieved from <https://www.avma.org/resources-tools/one-health> (accessed on 20-12-2023)
3. Zinsstag, J., Schelling, E., Waltner-Toews, D., Tanner, M., & Whittaker, M. (2011). One Health: The Theory and Practice of Integrated Health Approaches. CABI.
4. Gibbs, E. P. J. (2014). The evolution of One Health: a decade of progress and challenges for the future. *Veterinary Record*, 174(4), 85-91.
5. Lee, K., & Brumme, Z. L. (2013). Operationalizing the One Health approach: the global governance challenges. *Health Policy and Planning*, 28(7), 778-785.