



REVIEW

Strengthening the Implementation of the One Health Approach in the Americas: Interagency Collaboration, Comprehensive Policies, and Information Exchange

Fortalecimiento de la Implementación del Enfoque One Health en las Américas: Colaboración interinstitucional, políticas integrales e intercambio de información

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ABSTRACT

In the 21st century, the One Health approach recognizes the interdependence between human, animal and plant health and environmental conservation. In a globalized world where boundaries are blurring, this approach has become essential to address challenges such as zoonotic diseases, environmental degradation and food security. One Health fosters collaboration between public health, animal health, plant health and environmental conservation. Its implementation requires the cooperation of governments, NGOs, the private sector and civil society. Challenges include the lack of a common data platform and the need for sound legislation. Data collection and scientific evidence are essential, as is consideration of sociological factors in health. Social and technological innovation also play a crucial role. One Health offers the opportunity to comprehensively address public and environmental health issues, seeking a healthier and more equitable world for all species.

Keywords: One Health; Health Status Disparities; Globalization of Health Care.

RESUMEN

En el siglo XXI, el Enfoque One Health reconoce la interdependencia entre la salud humana, animal, de las plantas y la conservación del medio ambiente. En un mundo globalizado donde las fronteras se difuminan, este enfoque se ha vuelto esencial para abordar desafíos como enfermedades zoonóticas, degradación ambiental y seguridad alimentaria. El Enfoque Único de Salud fomenta la colaboración entre la salud pública, la salud animal, la salud de las plantas y la conservación del medio ambiente. Su implementación requiere la cooperación de gobiernos, ONGs, el sector privado y la sociedad civil. Los desafíos incluyen la falta de una plataforma común de datos y la necesidad de legislación sólida. La recopilación de datos y la evidencia científica son esenciales, al igual que la consideración de factores sociológicos en la salud. La innovación social y tecnológica también desempeñan un papel crucial. El Enfoque Único de Salud ofrece la oportunidad de abordar de manera integral los problemas de salud pública y ambiental, buscando un mundo más saludable y equitativo para todas las especies.

Palabras clave: Salud Única; Disparidades en el Estado de Salud; Globalización de la Salud.

INTRODUCTION

In the 21st century, humanity finds itself at a critical juncture where human health, animal health, plant health, and environmental conservation converge in an inextricable web of interdependence. This new

paradigm, known as the One Health approach, has emerged as an essential response to the challenges posed by this complex network of relationships in the Americas and worldwide. In an increasingly globalized world, where borders blur, and diseases can spread unchecked, the One Health perspective becomes imperative to address critical public health, food security, and environmental sustainability issues.⁽¹⁾

The One Health approach acknowledges that the health of humans is intrinsically linked to that of animals and the state of the ecosystem as a whole. This perspective breaks down traditional disciplinary and sectoral boundaries, promoting active collaboration among public health, animal health, plant health, and environmental conservation. It aims to address not only zoonotic diseases transmitted from animals to humans but also the environmental challenges that can affect the health of all species. As the world faces global health crises such as the spread of infectious diseases, ecosystem degradation, and food insecurity, the One Health approach emerges as a beacon of hope, offering an integrated and effective vision to address these issues.⁽²⁾

DEVELOPMENT

One health: a multidisciplinary approach to global challenges

The One Health approach is based on the premise that human, animal, and environmental health are interconnected and that any action affecting one of these dimensions will impact the others. This means that to address public health challenges effectively, it is necessary to simultaneously consider the health of humans, animals, and the environment in which they coexist. Rapid urbanization, agricultural expansion, climate change, and the globalization of markets have intensified the interdependence between these domains.⁽³⁾

For instance, zoonotic diseases, transmitted from animals to humans, significantly threaten public health. The spread of avian influenza, Ebola, and COVID-19 has highlighted the importance of integrated surveillance and response to prevent and control outbreaks. Furthermore, the degradation of the environment, biodiversity loss, and pollution can exacerbate health risks, as healthy ecosystems provide vital services, such as water purification and climate regulation.^(4,5)

Interagency collaboration and global coordination

The effective implementation of the One Health approach in the Americas and worldwide largely depends on interagency collaboration and global coordination. Public health, animal health, plant health, and environmental conservation have traditionally operated independently but now must converge in a joint effort to address interconnected challenges. This requires active collaboration among government agencies, non-governmental organizations, the private sector, and civil society.^(3,6)

This means that public health systems must work closely with animal and plant health services to monitor and prevent diseases, share information and resources, and develop joint response strategies. Additionally, the active participation of the conservation and environmental sectors is essential to address the underlying causes of emerging health issues, such as habitat loss and climate change.⁽⁷⁾

Challenges and opportunities in The Americas

Despite its potential, the effective implementation of the One Health approach in the Americas faces significant challenges. One key obstacle is the need for a common data and information-sharing platform among various institutions and sectors. Reluctance to share critical data on disease outbreaks and health threats can hinder timely and coordinated responses.⁽⁸⁾

Furthermore, a robust legal framework and legislation supporting the One Health approach are required. This entails the enactment of policies that facilitate intersectoral collaboration and the allocation of adequate resources to support the implementation of One Health strategies. Each country in the region must adapt these policies to its specific context and develop action plans that reflect its unique needs and priorities.⁽⁹⁾

Data and scientific evidence at the core of one health

Data collection and management are fundamental to the One Health approach. The availability of human, animal, and environmental health databases allows for informed decision-making and a rapid response to health threats. Moreover, the generation of solid scientific evidence and documentation of successful cases are crucial to identify priority areas for focus and assessing the effectiveness of interventions.^(2,10)

Databases in phytosanitary and animal health services are key to monitoring and preventing diseases and supporting decision-making in urgent situations. Collaboration between academic institutions, researchers, and government agencies is essential to ensure data is accessible and effectively shareable.^(4,11)

Comprehensive policies for a sustainable future

Creating comprehensive policies is a crucial component of the future of One Health in the Americas. These policies must address the interdependence between human, animal, and environmental health, establishing a

framework that promotes intersectoral collaboration. To achieve this, conducting exploratory work to identify each country's specific priorities and guide regional collaboration is crucial. Prioritization based on the results of this exploratory work is fundamental to understanding where resources should be invested more effectively.⁽¹²⁾

Sociological factors shaping health and well-being

The health and well-being of individuals and communities are shaped not only by biological factors but also by a complex web of sociological factors. Socioeconomic status, education, cultural practices, and access to healthcare services are pivotal in determining health outcomes. As One Health seeks to address health challenges holistically, it must also consider these social determinants of health.⁽¹³⁾

For instance, the accessibility of healthcare services and the socioeconomic status of individuals can significantly impact their ability to seek medical care for themselves and their animals. Addressing disparities in access to healthcare, especially in underserved and marginalized communities, becomes a crucial aspect of the One Health agenda. Furthermore, cultural practices and beliefs can influence health-related behaviors, including handling animals and consuming specific foods. Understanding and respecting cultural diversity is essential for the success of One Health interventions.⁽¹⁴⁾

Social innovation in one health

In addition to considering the social determinants of health, the One Health approach can benefit greatly from incorporating principles of social innovation. Social innovation refers to developing and implementing novel solutions to societal challenges. In the context of One Health, it involves finding innovative ways to engage communities, promote behavior change, and foster collaborative efforts across sectors.⁽¹⁵⁾

One example of social innovation in One Health is community-based health promotion programs. These programs involve local communities in identifying health risks and developing mitigation strategies. By empowering communities to take an active role in their health and well-being, these initiatives often lead to more sustainable and effective outcomes.^(16,17)

Another aspect of social innovation in One Health is using technology and social media to disseminate health information, raise awareness, and facilitate stakeholder communication. These digital tools can bridge geographical gaps, connect experts and communities, and facilitate real-time data sharing during disease outbreaks or environmental crises.



Figure 1. One Health Model (Image generated from DALL-E)

CONCLUSIONS

In conclusion, the One Health approach represents a unique opportunity to address the interconnected challenges of public health, animal health, plant health, and environmental conservation in the Americas and globally. Its effective implementation depends on active collaboration and coordination among the public and private sectors and civil society. The identified challenges, such as the lack of a common data-sharing platform and the need for robust legislation, must be urgently addressed.

Furthermore, it is essential to recognize the crucial role of data collection and the generation of scientific evidence in One Health and the importance of comprehensive policies that promote intersectoral collaboration. By decisively addressing these challenges, the Americas can pave the way for a sustainable future where the health of populations, food security, and environmental conservation intertwine in a mutually beneficial synergy for all species. One Health is a perspective and a call to action to forge a healthier and more equitable world for present and future generations.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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