



Shared Health Horizons: Integrating Human, Animal, and Environmental Wellbeing in Resource-Limited Regions

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DESCRIPTION

The idea that human health cannot be separated from the condition of animals and the environment has gained strong recognition in recent years. The One Health approach reflects this understanding by promoting collaboration across multiple disciplines to address health challenges that arise at the intersection of people, animals, and ecosystems. This perspective is particularly meaningful in low-income countries, where daily life often depends closely on livestock, natural resources, and local environmental conditions. In such settings, the movement of diseases between animals and humans is more frequent, and environmental pressures can quickly influence patterns of illness.

In many rural communities, animals are not only a source of food but also central to livelihoods and cultural practices. Close contact between humans and livestock increases the risk of zoonotic infections, which are diseases that can pass between animals and people. Illnesses such as rabies, brucellosis, and certain parasitic infections continue to affect populations where veterinary services, sanitation, and healthcare infrastructure may be limited. Addressing these issues requires more than isolated medical or veterinary interventions; it calls for coordinated efforts that include environmental management, public health planning, and community education.

Water quality is one of the most significant links connecting these domains. Contaminated water sources can serve as transmission routes for bacteria, parasites, and other pathogens affecting both humans and animals. In areas where access to clean water is limited, communities may rely on shared sources used by livestock and wildlife. This overlap increases exposure to infectious agents and complicates disease control. Through a One Health lens, improving water systems is not just an environmental or engineering concern but also a public health priority that benefits multiple species simultaneously. Another important element is land use. Agricultural expansion,

deforestation, and urban encroachment can alter ecosystems and bring humans into closer contact with wildlife. These changes may influence the emergence of infectious diseases by disrupting natural habitats and creating new pathways for pathogen transmission. In low-income regions, economic pressures often drive such environmental modifications, making it essential to balance development needs with health considerations. Collaborative planning that involves ecologists, health professionals, and local communities can help reduce unintended consequences.

Education plays a significant role in advancing the One Health concept. Community awareness programs can inform individuals about safe animal handling, hygiene practices, and the importance of vaccination for both humans and animals. When people understand how diseases spread and how their daily activities influence health outcomes, they are better equipped to adopt preventive measures. In resource-limited settings, simple interventions such as handwashing, proper waste disposal, and vaccination campaigns can have substantial effects when implemented consistently.

CONCLUSION

Ultimately, the value of this approach lies in its holistic perspective. By recognizing that the health of humans, animals, and the environment are interconnected, it becomes possible to design interventions that address multiple issues simultaneously. This integrated view is especially relevant in low-income countries, where resources are limited and challenges are closely linked. Through cooperation, education, and thoughtful planning, communities can work toward healthier and more sustainable futures. Strengthening these systems through collaboration between medical and veterinary sectors allows for more comprehensive tracking of infections. Early detection can lead to quicker responses, reducing the spread of disease and minimizing economic and social impacts.

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