

The One Health Approach: A Critical Pathway for Public Health and Sustainable Development in the Developing World

One Health, which views interdependencies between human, animal, and environmental health, is receiving increasing attention across the globe as an effective way to handle the complexities associated with health issues. In developing countries, like Nepal, where the economic survival of human populations is ecologically interwoven with animals, wild animals, and the natural environment, One Health is no longer a theoretical or academic model, but the need of the day.

Nepal is an exemplary situation for applying the concepts of One Health. There is a large number of population that depends on agriculture and animal resources as a means of living. Direct contact between human and animal populations and minimal bio-security measures make them vulnerable to incidents of transmitting and acquiring diseases from each other. These include rabies, bird flu, brucellosis, Leptospirosis, Q-Fever, Tick Borne Viral diseases, and Japanese Encephalitis, which continue to threaten the community at large. Furthermore, these diseases continue to have an increased impact on the rural sectors and the commonly deprived sections of the community, thereby worsening the already prevailing disparity between those who are able to access better healthcare and those who are deprived.

In terms of public health, the significance of the One Health approach lies in the fact that it enhances disease prevention and control by overcoming the limitations of the old-fashioned sectorial approaches. Indeed, the old-fashioned approaches may create problems related to delayed disease outbreak identification and consequently poor disease control and prevention. The aforementioned problems can lead to weaknesses in disease prevention and control. Moreover, the COVID-19 pandemic has shown that the human-animal-environment interface has international implications and that the one health approach can contribute to the prevention of future pandemics.

Agriculture is another area of equal importance where One Health can bring changes. Animal health is directly associated with food security, nutritional status, as well as earning capacity. Poor health of the animal affects it indirectly through low productivity, financial losses, and overuse of antibiotics. The latter causes antimicrobial resistance (AMR). AMR is an emerging problem in Nepal as a result of unregulated use of antibiotics both at the human medicine counter and animal health services.

Environmental health is the base of the Three-One Health components and has relevance in the context of the ecologically vulnerable environment of Nepal. Environmental degradation, such as unplanned forestation and climate change, affects the ecology of diseases and thereby increases the susceptibility of people to new pathogens. Environmental Health promotes responsible environmental policies and climate-resilient policies in relation to health.

Apart from the benefits to human health outcomes, the One Health approach also meets the overall goals of development. One Health will contribute to the control of poverty and the advancement of economic growth. For a country such as Nepal, implementing One Health will lead to improved governance. This will result from cooperation among different ministers and the use of data to make decisions. The use of One Health will prove to be cost-effective because the expenditure needed to provide health care in human beings will not be necessary. In essence, the One Health approach provides a holistic and pragmatic framework through which developing nations can address problems that intertwine food security, human health, and natural resource management. To Nepal, adoption of One Health is no longer an issue of choice but one of need: for improving public health, protecting agriculture, safeguarding the environment, and promoting sustainable development.

Upendra Thapa Shrestha, Associate Editor

Dr. Dev Raj Joshi, Editor in Chief

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