

“One-Health” from Indian Council of Agricultural Research (ICAR)



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The escalation and widespread occurrence of zoonotic diseases, encompassing infectious agents shared globally between animals and humans, represent a highly concerning threat to human health. It underscores the fact that diagnostic, treatment and prevention strategies should be targeted not only at infected humans but also at the vertebrate hosts (reservoirs) implicated in the transmission of these zoonotic diseases. One Health is defined as 'an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals, and ecosystems. It recognizes the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent'.

The emergence and dissemination of zoonotic diseases represent a significant menace to human health, necessitating the adoption of a collaborative One Health strategy. The implementation of enhanced diagnostic methods has facilitated swifter and more precise identification of livestock diseases, contributing to advancements in treatment, control and prevention.

Issues at the intersection of human, animal, and environmental health have gained heightened importance in recent years. The expansion of human and animal populations, shifts in climate and land use, and increased international travel and trade have become important drivers for the spread of diseases. The One Health approach necessitates multidisciplinary communication, cooperation, and collaboration. The immediate course of action involves convening conclaves, workshops, symposia, and seminars that bring together experts from human, animal, and ecological domains. The purpose is to collaboratively formulate a framework for the surveillance of zoonotic infections at the interface of animals, humans, and wildlife. These gatherings should establish priorities for an international, national, and interdisciplinary approach. A successful implementation of the One Health approach necessitates a shift in the perspectives and actions of all stakeholders. This entails a reevaluation of various innovative ideas to discover technological solutions, achieved through the sharing of knowledge and experiences.

Veterinary Services in India have a rich history of applying veterinary public health principles to safeguard human health. Significant efforts in the past have focused on addressing zoonotic diseases and food-borne pathogens transmissible through foods of animal origin. NCDC and organizations in the veterinary sector collaborate with various stakeholders to prevent zoonotic diseases of public health significance.

Implementing One Health practices in livestock and aquaculture, particularly through the judicious use of antimicrobials, can mitigate the spread of Antimicrobial Resistance (AMR), a serious threat to both human and animal well-being. The overall health of the livestock and poultry sector plays a pivotal role in protecting the national economy, especially in terms of potential trade restrictions and export bans. Additionally, empowering women in this sector is crucial, contributing to healthier environment, healthier individuals and healthier animals. Gender-responsive interventions are imperative within the "One Health approach" to ensure that no one is left behind.