

One Health System Strengthening in India: Co-creating One Health Workforce to Combat Future Pandemics

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Abstract

One Health has been coming of age through the G7 and G20 leadership and explicitly referred to in increasing ministerial declarations. Those leaderships, however, have been slow in knitting the One Health approach into the larger systems approach. By understanding the complexity of resilience and health system resilience is one of the key features of pandemic preparedness. Among others, health system strengthening is another key factor that urgently requires much attention in the theme of pandemic preparedness. Here, how the health system strengthening requires more imperative attention in the One Health gambit is discussed in the Indian context.

Keywords: Health system strengthening, India, One Health system, pandemic prevention

Health system strengthening for preventing the next pandemic

Health system strengthening (HSS) is a key task of global health, increased by the surge in disease emergence and re-emergence.^[1] There is increased recognition of sustainable development, global security, and effective governance globally, which have become important drivers for HSS in low-middle-income countries.^[2] There is no blueprint for HSS as it needs to be contextualized in the local realities and adapted to the local needs. The health workforce is one of the key building blocks for HSS^[3] and collaborations between community health workers, animal health workers, and environmental officers are important for efficient prevention and control of emerging and reemerging diseases.^[4]

The key concept of One Health

The integrated One Health approach emphasizes the need for intersectoral collaboration to tackle complex health challenges.^[5] One Health is 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) that are closely linked and interdependent. The approach mobilizes multiple sectors,

disciplines, and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development.^[5] The first joint plan on One Health (developed by the quadripartite WHO-WOAH-FAO-UNEP) aims to create a framework to integrate systems and capacity so that we can collectively better prevent, predict, detect, and respond to health threats.^[6] Ultimately, this initiative seeks to improve the health of humans, animals, plants, and the environment while contributing to sustainable development.

Understanding of One Health system from past research

One of our previous studies on “Research to explore Intersectoral Collaborations for One Health Approach” (RICOHA)

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emphasized the lack of convergence among the health workforce due to their low awareness level and differences in health system responsiveness.^[7] RICOHA was conducted in Ahmedabad, Gujarat, between 2017 and 2020 to understand the strength of intersectoral collaborations and networking in the health system of Ahmedabad for the control of zoonotic diseases.^[8] The study identified some key implementation barriers, including lack of involvement of administrative staff both at the state and the district level in the decision-making, lack of community participation in the prevention of zoonosis, inadequate knowledge of intersectoral coordination, low acknowledgement of the need for intersectoral coordination, and need of One Health volunteers at the grass-root level. This indicates a local need for awareness-raising among healthcare providers and intersectoral collaboration through One Health.

The One Health system and its complexity India

Operationalization of One Health is an important building block of infection-related HSS, requiring the prioritization of health risks at the human–animal interface with acknowledgement of the underlying drivers of change, such as climate change, urbanization, and lifestyle changes.^[9] Aiming to strengthen the local health systems through building the capacity of One Health workforce is the road ahead for mitigating the risk of future pandemics. Looking at the Indian governance structure, the One Health workforce is not limited to the stakeholders working in the Ministry of Health and Family Welfare, Ministry of Agriculture and Farmers Welfare, Ministry of Fisheries, Animal Husbandry and Dairying, and Ministry of Environment, Forests and Climate Change. However, the auxiliary ministries like the Ministry of Science and Technology, Ministry of AYUSH, Ministry of Commerce and Industry, and independent bodies like the Indian Council for Medical Research (ICMR), Indian Council for Agricultural Research (ICAR), Non-Governmental Organizations, etc., have vital roles in supporting the One Health system in India.^[10] Although India has some flagship movements like formulating One Health Consortium,^[11] and National Institute of One Health^[12] established jointly by ICMR and ICAR, the key focus is toward the clinical aspect in increasing preparedness and laboratory capabilities for the identification of novel and unknown zoonotic agents. A year back, India headed toward implementing an integrated health system called “*One Nation, One Health System*,”^[13] which would integrate modern and traditional systems of medicine like Allopathy, Ayurveda, and Homeopathy in education, medical practice, and research. Although this is a remarkable decision, the core principle of One Health is missed in this initiative. Undoubtedly, this could be the cornerstone for including more relevant stakeholders who are working at the interface of the human–animal–ecosystem in the forthcoming years; however, this might not solve the purpose of the Global One Health joint plan of action.

Preparing One Health system for the next pandemics

It is vital to address the complexity based on the One Health principle and strengthen the health workforce to be prepared for the next pandemic. Considering the current standpoint of

India’s effort and the G20 presidency, it is high time to debate the One Health system and enforce the capacity of the health workforce who are engaged in the different systems at the interface of the human–animal–ecosystem. Moving beyond integrating medicine systems like Allopathy, Ayurveda, and Homeopathy to have inclusive of Veterinary education, Environmental and agricultural science is the must way forward. Not only is the workforce engaged in the current health systems important, but also the future workforce currently in the medical, veterinary, or environmental graduate courses are equally important to infuse them with the concept of One Health and revitalize them. Further, the leadership at the government level for reinforcing interdisciplinary collaboration, joint programs, operational plans, advocacy, and awareness among policymakers and professionals as part of the One Health system workforce is essential. Grossly, India should envisage having a National One Health Mission, which would work in the principle of One HSS in a holistic way, tackling all the relevant stakeholders at the interface of the human–animal–ecosystem could provide a ray of hope for fighting future pandemics. Within the comparatively new field of “science and health diplomacy” scientists from Western India have received a fund from the German Alliance for Global Health Research-PARTnerships for Research and Training in Health (GLOHRA-PATH) program through the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) and aiming to build the One Health system in three Western Indian states, that is, Gujarat, Rajasthan, and Maharashtra. This project entitled One Health System Strengthening in India (OHSSIN) aims to investigate and prioritize the emerging threats and risks at the human-animal-environment interface and develop the capacity of the clinical and community workforce for its early detection.

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Conflicts of interest

There are no conflicts of interest.

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