ONE HEALTH INDIA CONFERENCE 2019

One Health India Conference,
February 18-19, 2019
Convened by
Department of Biotechnology (DBT), Ministry of Science & Technology, Government of India
In Partnership With
Departments of Agriculture Research and Education (DARE) and Animal Husbandry, Dairying & Fisheries (DAHDF), Ministry of Agriculture & Farmers' Welfare, Government of India
Departments of Health Research (DHR) and Health & Family Welfare (DHFW), Ministry of Health & Family Welfare, Government of India
In Collaboration With
The Bill & Melinda Gates Foundation
Institute of Animal Health and Veterinary Biologicals (IAHVB)
Penn State University, USA

Conference Declaration and Statement

The conferenceserved tolaunch India's new One Health Initiative - an intersectoral approach to tackling the most urgent health threats.The conveningbrought together thought-leaders from India and around the globe, providing a platform for researchers, medical and veterinary practitioners, public and private sector stakeholders, and policymakers to integrate knowledge and identify needs and opportunities to better coordinate activities and address major human, animal, and environmental health challenges.

The conference outlined apragmatic and flexible action plan for the response, preparedness, and management of current regional, national and global health challenges using a One Health collaborative approach. The conferencedeliberations were focused on identifying needs and opportunities and developing a strategy map to address major human and animal diseases of concern including Brucellosis, Tuberculosis, Anthrax, Antimicrobial resistance (AMR), together with biosafety, biosecurity, burden of disease and inter-sectoral collaborationconsiderations.

At its conclusion, the conference attendeeshighlightedspecific areas of research, translation toclinical and field use, and helped outline an action plan to foster transdisciplinary and international collaboration using a One Health approach.

About One Health

One Health has been defined as "a collaborative, multisectoral, and transdisciplinary approach—working at local, regional, national, and global levels—with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants and their shared environment." (CDC)
More than half of all known pathogens, including those that cause Anthrax, Brucellosis, Influenza, Rabies, Tuberculosis, etc., that cause disease in humans are shared with domestic livestock and wildlife species ("zoonotic diseases"). Worldwide, more than 1 billion infections

and 1 million deaths annually are attributable to zoonoses. Hence there is a strong rationale for the application of a One Health approach addressing priority zoonotic diseases, biosafety and security, and antimicrobial resistance that account for considerable public health burdens at different levels in different countries. Therefore, there is a need to further strengthen coordinated disease surveillance approaches and inter-agency collaboration.

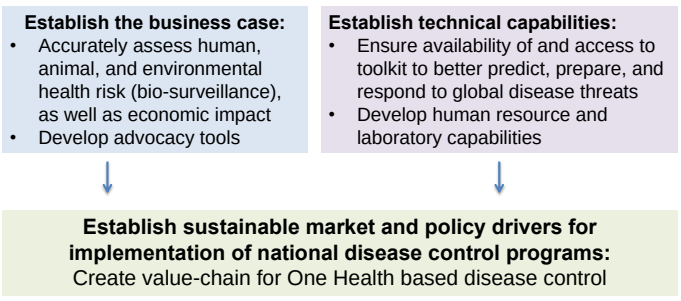
Hence, it is increasingly well-recognized that a One Health approach is critically needed in order to:

- Meet global health challenges and improve animal and human health through collaboration among all the health sciences, especially between the human and veterinary medical professions and public health professionals, to address critical needs;
- Develop centers of excellence for education and training in specific areas through enhanced collaboration among colleges and institutes of human medicine, veterinary medicine, and public health; and
- Accelerate our scientific knowledge and translational capacity, as well as create innovative programs to help improve human, animal and environmental health and well-being.

Conference Outcomes and Recommendations

This conference resulted in a groundbreaking dialogue by scientific thought leaders, inter-sectoral representatives, as well as policy-makers that resulted in concrete recommendations on how to advance a future One Health framework for India based on inclusive policy reform, scientific innovation and sustainable investment.

The deliberations strongly emphasized that a multisectoral and transdisciplinary collaboration and cooperation approach, working at local, regional, national, as well as global levels will be necessary to achieve such a One Health framework. However, depending upon the nature of collaboration(s) and parties involved in it, the committee recommended adoption of a well-defined, sustainable One Health Roadmap (OHR) where each country needs to identify the concerned party(ies) and define their role in the collaboration. As such, it was agreedfor action with 10-point OHR plan to assure best possible implementation of the One Health Program. While preparing the OHR, the committee has taken due consideration of the 8-point statement on One Health by APHA and global best practices.



Furthermore, several critical needs were identified on the “market” and policy drivers to create the value chain for a One Health Program. An evidence-based “business” case through accurate risk and economic impact assessment, along with ensuring availability of and access to the tools to predict (through models and surveillance), prepare (through capacity building) and respond (with fit-for-purpose interventions including, diagnostics, vaccines and therapeutics), was proposed as sustainablemechanism for managing One Health challenges (see adjacent figure).

The proposed One Health Roadmap

1. **Review, update and document** the current disease burden(s) resulting from zoonotic diseases and AMR and the drivers behind the behaviors by commissioning required studies.
2. **Identify the priority area(s) of concerns** with respect to diseases, emerging or re-emerging infections, biosafety and biosecurity challenges and policy environment that require immediate or long-term interventions.
3. **Promote basic and applied research** to understand the mechanism of virulence, infections and its transmissions leading to the development of relevant tools and techniques for detection, diagnosis and control. There is a need to explore the transformative ability of modern biotechnology especially genome editing, synthetic biology to find affordable solutions to tackle One Health challenges.
4. **Capacity building** through engagement and training of manpower including students, scientists, researchers, primary respondents, and health care professionals. Specific training modules need to be developed for target groups, maintaining currency with the evolving nature of challenges, international best practices and advancement of sciences.
5. **Capacity building and improvement** of related infrastructure for research, diagnosis, and health care system(s) to enable an effective preparedness and response mechanism and empowering primary responders and health care professionals to avoid occupational hazards while diagnosing and treating diseases.
6. **Share information** on existing and evolving disease burdens, challenges, research outcome and outputs and promote exchange of resources, including trained manpower, tools, reagents, organisms etc for effective medical countermeasures.
7. **Explore opportunities and promote partnership** through scientific collaborations between public and private organizations, both at the national and international level,establishinginter-sectoral exchange programs to fast track innovation in the areas of detection, diagnostics, response and medical countermeasures.
8. **Evolve with practical governance, policy mechanism(s) and regulation(s)** to define the role of Government and other stakeholders on responsibly regulating/ dealing with One Health relatedactivities. This will allow for integrated human, animal, and environmental health impact assessments and management plans to support decision making, in particular for evaluating and monitoringdual-use concerns of scientific innovations in the context of One Health, addressing related biosafety and biosecurity challenges and guidelines in a legally protected environment.
9. **Incentivize the OHR** through dedicated funding, rewards mechanisms as well as due protection of intellectual rights, wherever applicable.
10. **Create and implement a One Health communication and outreach plan** for all stakeholders including the public, through print and online platforms, an organization of workshops, training, and conference like this (One Health India Conference) to provide a platform for mass awareness helping a nation to ensure its own health security.

The conference opined that operationalizing the OHR should not be a one-time task. It shall require dynamic and dedicated attention for reviewing risk concerns, mobilization of capacity, arranging funds, sharing information, engaging ministries, experts, international bodies, arranging training, workshop, conference etc within a reasonable time period. Therefore, it was recommended to develop charter and constitute a National policy on One Health and a Commission headed by an Inter-ministerial advisory body, to support the goals and mission.

Creating an Ongoing International Forum

The conference participants call for the development of an ongoing (inter) - national forum to foster broad public dialogue to gather diverse perspectives, to inform decisions by policymakers, to formulate recommendations and guidelines, and to promote coordination among nations and regional partners.