

Scientific Secretary to the Principal Scientific Adviser to the Government of India praised the multidisciplinary approach adopted by the One Health Poultry Hub in bringing about long-lasting change for disease control and improving coordination among stakeholders

The GCRF One Health Poultry Hub was delighted to welcome Dr Parvinder Maini, Scientific Secretary, Office of the Principal Scientific Adviser to the Government of India, to the opening ceremony of its final all-Hub meeting today <7 February> in New Delhi, where she delivered an inaugural address focusing on the importance of One Health.

In her address, Dr Maini emphasised the growing significance of the One Health approach, particularly in the light of the COVID-19 pandemic. The One Health approach, understands the interconnectedness of animal, human, environmental and ecosystem health and seeks to achieve best health for all through promoting effective and efficient intersectoral and interdisciplinary collaboration across the human, animal, plant and environment domains.

Avian influenza research

Since early 2019, the One Health Poultry Hub has employed a One Health approach to identify factors influencing health risks associated with intensification of poultry production. These include avian influenza – which has epidemic and pandemic potential, bacterial pathogens such as *Salmonella* and *Campylobacter*, and also the growing threat from antimicrobial resistance (AMR).

Undertaking fieldwork in Tamil Nadu and Gujarat in India, as well as in Bangladesh, Sri Lanka and Vietnam, the One Health Poultry Hub's objective has been to inform the development of economically, socially and environmentally sustainable policy and interventions that will result in improved health for people, animals and societies. The five-year programme has been funded by UK Research and Innovation through the Global Challenges Research Fund.

Today's final all-Hub meeting, held at the Jaypee Vasant Continental Hotel, New Delhi, brings together more than 80 researchers from many disciplines, including the social and natural sciences, to consider their findings and integrate them. The research outputs of the Hub come at an opportune moment as the framing of India's One Health Mission is receiving finishing touches. India's recent G20 Presidency also made very specific inputs to the contemporary global health agenda, with One Health as a central theme in that process.

Challenges of poultry production

Dr Maini, in her inaugural address, discussed challenges faced in poultry production, such as avian influenza (bird flu), which poses economic, biodiversity and zoonotic risks.

The UKRI GCRF One Health Poultry Hub

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She mentioned the India national action plan on bird flu issued by the Department of Animal Husbandry and Dairying and outlined the Government of India's efforts to promote One Health through initiatives such as the National One Health Mission, emphasising synergies among ministries, departments and stakeholders. She praised the multidisciplinary approach of projects such as the One Health Poultry Hub in bringing about long-lasting change for disease control and improving coordination among stakeholders.

A keynote address via video from Dr Soumya Swaminathan, Chairperson, MS Swaminathan Research Foundation and former Chief Scientist, World Health Organization (WHO), spoke of the realisation that zoonotic infections are going to be the biggest threat in terms of epidemics and pandemics.

She noted the increasing rate of jumps of viruses from animals to humans in the past few decades and said the trend is likely to continue. She said:

"All of us have become sensitive to the concept of One Health and there is certainly been more discussion around One Health in the last couple of years since we were hit by the COVID-19 pandemic. As Chief Scientist of the World Health Organisation at that time it was very clear that many of the trends that we have seen in global agriculture trade both legal and illegal trade of wildlife and the loss of biodiversity, the increasing globalisation, the intrusion of human beings into traditionally places where animals used to live and therefore loss of habitat but also intensive practices of poultry, livestock, piggery, fishery farming to feed the growing need of the world's population and the indiscriminate use of drugs particularly antibiotics both in humans but also in animals as for treatment of infection but also unfortunately as growth promoters etc. leads to the increasing trend of antimicrobial resistance. This trend only got worse during the pandemic as there was an increase in the use of antibiotics because of the increase in respiratory infection world-wide. And the realisation that zoonotic infections are going to be the biggest threats in terms of epidemics and pandemic."

She further noted:

"One Health approach obviously putting human health front in centre because that's what we are more concerned about but essentially recognises the fact that what we do in other sectors whether it is agriculture or livestock or poultry or the management of the environment has implications for human health and therefore the solutions lie not just in the sphere of human health whether its disease prevention or treatment or diagnosis but goes beyond that and in this case the research that all of you have been engaged has been looking specifically at poultry farming I believe and practices there which could either promote or discourage the development of risk of antimicrobial resistance as well as risk of zoonotic infections."

Dr Swaminathan spoke of the importance of the influenza monitoring and surveillance networks, coordinated by the WHO, and of learning from past mistakes in the preparation of the post-COVID 19 WHO pandemic treaty now being negotiated.

Professor Tomley noted that we were living in "interesting and scary times", with disease threats high. However, the pandemic had had positive as well as negative effects, including demonstrating the ingenuity of technical developments, such as diagnostics, the ability to roll things out at speed but also reminding us that not all challenges have technical solutions.

Other honoured guests for the opening ceremony included Professor Satish Chandra Garkoti, Rector of Jawaharlal Nehru University, and Mr Takayuki Hagiwara FAO Representative in India.

Professor Rajib Dasgupta, of Jawaharlal Nehru University, and Professor Fiona Tomley, Director of the One Health Poultry Hub and of Royal Veterinary College, UK, presided at the ceremony. Deputy Director Dirk Pfeiffer, Chow Tak Fung Professor of One Health and Director of the Centre for Applied One Health Research and Policy Advice at City University of Hong Kong, gave the keynote presentation, entitled 'One Health for tackling real-world complex challenges.'

Notes to editors



There are 28 partners, from 10 partner countries, in the One Health Poultry Hub. A five-year programme funded by UK Research and Innovation through the Global Challenges Research Fund, it launched in February 2019. The Indian partners of the One Health Poultry Hub include The Indian partners include Jawaharlal Nehru University, New Delhi, Kamdhenu University, Gujarat, Gujarat Biotechnology Research Centre, Gujarat, Tamil Nadu Veterinary and Animal Sciences University, Tamil Nadu, Christian Medical College Vellore, Tamil Nadu. Find out more about the Hub at www.onehealthpoultry.org; Twitter/X - @PoultryHub

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