Charting the Path to Global Health: India's G20 Presidency and the Science Diplomacy Efforts for Pioneering Solutions

Enna Dogra Gupta*, Rajni Kant
Indian Council of Medical Research (ICMR), Ansari Nagar, New Delhi
**Corresponding author: dogra.enna@icmr.gov.in*

The COVID-19 pandemic has brought public health to the forefront of the global agenda, necessitating a more aligned and coordinated approach to tackling health challenges. Key health issues, such as emerging and re-emerging infections, outbreaks/epidemics/pandemics, rising incidence of non-communicable diseases, impact of climate change, anti-microbial resistance, are not confined to a single country or region, necessitating a collective global response. International forums like G20, BRICS, SAARC, NAM, and the Quad, serve as vital platforms, bringing together countries from diverse regions, each contributing their unique experiences and expertise. This collective engagement provides a comprehensive understanding of health challenges and facilitates the development of holistic solutions. These forums enable policy coordination, resource mobilisation, knowledge sharing, capacity building, norm-setting, and diplomatic engagement in the realm of global health. By engaging in dialogue, they aid in aligning policies, pooling resources, sharing best practices, and setting common standards. Such concerted efforts strengthen global health governance, enhancing the capacity to respond effectively to health crises and promoting a healthier future.

India's G20 presidency in the current year holds immense significance as it provides a platform for the country to showcase leadership and actively shape global economic and development agendas, with health being a major focus. As the world's fifth-largest economy and home to a substantial population, India brings a unique perspective to the table. The G20 countries collectively represent two-thirds of the world's population, 75% of global cross-border trade, and 80% of the world's GDP, amplifying the importance of their leadership.

Under the theme "One Earth, One Family, One Future," based on India's philosophy of '*Vasudhaiva Kutumbakam*' (the world is one family), India's G20 Presidency in 2023 prioritises healthcare, recognising its vital role in global well-being and economic stability. It concentrates on three pivotal areas: prevention, preparedness, and response (PPR) to health emergencies; enhancing cooperation in the pharmaceutical sector; and promoting digital health innovations. These areas comprehensively address health challenges and foster collaboration among member countries.

On leveraging the G20 presidency, India seeks to drive international efforts in responding effectively to health emergencies, strengthening the pharmaceutical sector through enhanced cooperation, and promoting digital health innovations. These initiatives aim to contribute to global well-being and enhance nations' resilience in health crises.

The Health Track of India's G20 Presidency consists of four Health Working Group (HWG) Meetings and one Health Ministerial Meeting. The meetings have been held in Thiruvananthapuram (Kerala), Goa, Hyderabad (Telangana), and the fourth one is planned in Gandhinagar (Gujarat). The primary objective of these meetings is to build upon the health priorities and chief outcomes from previous presidencies while emphasising critical areas that require strengthening. In addition to the core meetings, various side events

have been organised, including discussions on Medical Value Travel and Digital Health, a workshop on collaborative research on drugs, diagnostics, and vaccines, and a co-branded event on the Global Centre for Traditional Medicine. The participation of over 180 delegates from G20 countries, invited states, and international organisations, demonstrates the global engagement and commitment towards addressing health challenges.

One of the essential priorities of India's G20 Presidency is health emergencies PPR with a focus on antimicrobial resistance (AMR) and the One Health framework. AMR poses a significant global health challenge, reducing the effectiveness of antibiotics and other antimicrobial drugs against infections. India's focus on AMR during its G20 Presidency underscores the need for a coordinated and multi-sectoral approach to tackle this issue. It includes policy and regulation, surveillance and monitoring, and public awareness and education as crucial areas to address AMR effectively. Strengthening regulations related to antimicrobial use, promoting responsible antibiotic use, supporting research and development, enhancing surveillance systems, and raising public awareness are cardinal steps in combatting AMR comprehensively.

The One Health approach, recognising the interconnection of human health, animal health, and the environment, is another area of focus under India's G20 Presidency. By enhancing veterinary services, improving animal health, and promoting international collaboration in research and data sharing, the One Health framework facilitates early detection, rapid response, and effective control of emerging infectious diseases. Sustainable and eco-friendly practices, including responsible antibiotic use in agriculture, pollution and contamination reduction, and safe disposal of pharmaceutical waste, are essential for achieving One Health objectives. India's G20 Presidency provides an opportunity to strengthen international cooperation on the One Health agenda.

Strengthening cooperation in the pharmaceutical sector is another priority under India's G20 Presidency. The aim is to ensure access to safe, effective, quality, and affordable medical countermeasures, which include vaccines, therapeutics, and diagnostics (VTDs). India's expertise in the pharmaceutical industry can contribute to improving access to essential medicines globally. Discussions have taken place regarding the establishment of a global R&D network as part of the Global Medical Countermeasures Platform. This network aims to bolster pandemic preparedness and response efforts by fostering collaboration and coordination among various stakeholders. This network would promote innovation, research collaboration, and cooperation between governments, institutions, and stakeholders, strengthening global health systems and resilience.

The COVID-19 pandemic has exposed the vulnerability of low- and middle-income countries in the Global South, prompting the need for innovative approaches to build local capabilities and ensure timely access to diagnostics, vaccines, and medicines during health emergencies. The global community must prioritise the needs of these countries in shaping the next global health architecture to effectively manage future pandemics. Establishing Vaccine-Therapeutics-Diagnostics Networks across different regions and diversifying research and manufacturing capabilities can enhance the world's collective response to health challenges. It is crucial to address unpredictable demand surges, scaling-up difficulties, and disrupted supply chains that have hindered the timely delivery of essential medical products. Global leadership should take responsibility for ensuring the equitable distribution of tests and treatments to all countries within a defined timeframe, and a global medical countermeasures coordination platform can play a vital role in this effort during India's G20 presidency.

India's focus on digital health innovations aims to improve healthcare accessibility, quality, and efficiency using technology. India's successful adoption of digital technologies can provide lessons for accelerating the progress of universal health coverage for the world. By expanding telemedicine services, promoting the adoption of electronic health records, establishing interoperable health information exchange systems, and leveraging artificial intelligence and data analytics, India aims to overcome barriers and improve healthcare outcomes. Successful implementation of digital health innovations requires strategic investments, policy reforms, capacity building, and collaboration with national and international stakeholders.

During the recent 3rd HWG held at Hyderabad, a panel discussion centred around the creation of a global R&D network dedicated to research in VTDs. The discussions highlighted the potential of innovation,

manufacturing networks, and partnerships in driving global health research. The session concluded by emphasising the need to create a universal reality where life-saving medical countermeasures are accessible to all. The impact of the COVID-19 pandemic on healthcare systems globally prompted the call for collaboration, innovation, and accelerated research.

The discussions shed light on the fundamental pillars necessary for a robust global R&D network. These pillars encompassed leveraging strengths, sharing knowledge, setting priorities, allocating resources, building capacity, and facilitating technology transfer. A collaborative "Network of Networks" approach was proposed, promoting regional and local cooperation while aligning with existing partnerships and principles outlined in the World Health Organisation Blueprint. The envisioned collaboration would involve the establishment of a globally accessible database encompassing priority pathogens, ongoing research on VTDs, and the development of disease-agnostic technologies. This comprehensive database aims to address challenges such as information asymmetry, availability of critical materials, and inequitable access to potential solutions.

India's G20 Presidency presents a valuable opportunity to enhance its healthcare setup while contributing to global health. By prioritising the prevention of health emergencies, strengthening cooperation in the pharmaceutical sector, and promoting digital health innovations, India can advance its healthcare infrastructure, enhance access to affordable medicines, and improve the quality of healthcare services. Strategic investments and collaboration are vital in addressing global health challenges. Through international cooperation, knowledge sharing, and resource mobilisation, India can play a crucial role in building a healthier future for all.