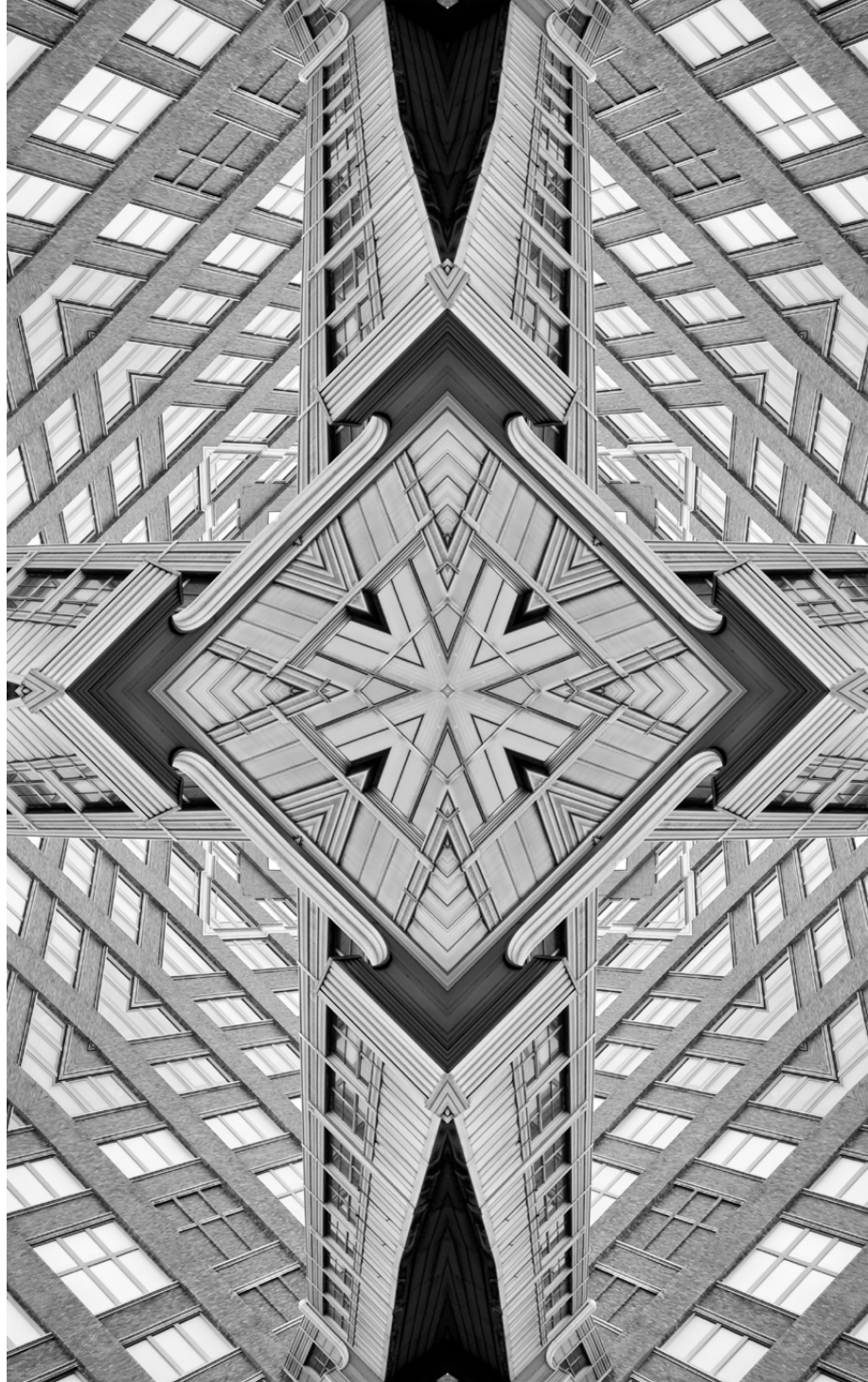


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Brief

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India and the U.S. Make a Strategic Case for Health Cooperation

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Abstract

India and the United States (US) have been cooperating in the health sector since the late 1960s. The cooperation has intensified in the past decade, riding on institutional structures established following the launch of the US-India Health Initiative in 2010. It has seen further expansion since the COVID-19 pandemic, and today covers a wide range of areas including disease prevention and combating infectious diseases, maternal and child health, and vaccine development. This brief illuminates the strategic nature of India-US health cooperation.

Public health has been an established channel of collaboration between India and the United States (US) since the late 1960s, when the two countries worked together on India's smallpox eradication programme.¹ Over the years, the two have cooperated in areas such as polio eradication, HIV/AIDS epidemic control, tuberculosis control, influenza pandemic preparedness, overall pandemic preparedness and response, global infectious disease surveillance, integrated public health laboratories, antimicrobial resistance and infection prevention and control, and improving public health capacities.²

In the US, the cooperation is spearheaded by the Centers for Disease Control and Prevention (CDC) and the United States Agency for International Development (USAID). On India's side, various organisations are involved, with the Ministry of Health and Family Welfare (MoHFW) as apex body. The CDC established a designated office in India in 2001, after working over the earlier decades through the World Health Organization's (WHO) country office and the United Nations Children's Fund (UNICEF). Among the earliest efforts of CDC in India was supporting the immunisation drive against smallpox, later expanding its work to other diseases such as polio, rotavirus, and measles. The collaborations, research, and knowledge-sharing proved beneficial for both countries and helped India develop critical infrastructure in public health.

The USAID, for its part, was initially focused on food aid for India, eventually assisting in the fight against diseases such as malaria in the 1970s. In the 1980s it began supporting biomedical research, family planning, and maternal and child health in India. The 1980s also saw a dramatic rise in the number of Indian-origin doctors in the US, who set up the American Association of Physicians of Indian Origin in 1982 and thereby played a role in framing medical policies in the US.

In 2004, India and the US elevated their relationship to a 'strategic partnership' and later in 2021, to a 'comprehensive global strategic partnership'. Meanwhile, their cooperation in the health sector became a more critical aspect of their broadened spectrum of relations.

US-India health cooperation was institutionalised in the years immediately preceding 2010, particularly in areas such as biomedical research. India was identified as a regional centre in the Global Disease Detection network in mental health and urban health, and in creating regulatory frameworks. The collaboration also focused on pandemic influenza preparedness and response, laboratory systems and bio-safety, field epidemiology training, health communications, and zoonotic disease investigation and control.³

The US-India Health Initiative was launched in Geneva during the World Health Assembly in May 2010. Four important working groups were set up under the programme: non-communicable diseases; infectious diseases; strengthening health systems and services; and maternal and child health. In November 2010, India's National Centre of Disease Control (NCDC) and the MoHWF signed a memorandum of understanding (MoU) with the US's CDC and its Department of Health and Human Services (HHS), paving the way for the setting up⁴ of the Global Disease Detection-India centre in 2014. The centre covers biomedical research and infectious disease prevention and control, with funding and technical support from the CDC and the USAID, for tuberculosis, HIV/AIDS, other infectious diseases, and maternal and child health.⁵ The establishment of the centre led to better alignment between the health priorities of the two sides.

In 2012 they launched the Epidemic Intelligence Service programme, institutionalising regular research collaboration between entities like the US's National Institutes of Health (NIH) and India's ICMR and Department of Biotechnology. They work together in biomedical and behavioural health sciences, HIV/AIDS research, control of infectious diseases, diabetes, cardiovascular diseases, and mental health disorders, and developing low-cost medical technologies.

The fourth India-US Strategic Dialogue⁶ in June 2013 focused particularly on health. It included cooperation in prevention and control of road traffic injury, prevention and control of HIV/AIDS, trauma system development and emergency medical services, child survival and development, and combating human and avian influenza and other emerging infectious diseases. It stressed the need for collaboration between biomedical and behavioural health researchers of both countries. Another important step was the Health Dialogue held in September 2015 in the US, which identified capacity-building in tackling mental health issues and the regulatory aspects of traditional medicine as key areas of focus.⁷

Today, the US and India share a robust partnership in the domain of health, with efforts on HIV/AIDS, polio, malaria and tuberculosis. India is also a major supplier of Active Pharmaceutical Ingredients (APIs) to drug manufacturers in the US. India is amongst the largest global producers of generic medicines and has the largest number of US Food and Drugs Administration (FDA)-compliant pharmaceutical plants.⁸ Other areas of cooperation being planned include occupational and environmental health, maternal and child health, and combating emerging and re-emerging infectious diseases, especially through vaccine development.

Apart from the CDC and the USAID, the US's HHS, FDA and NIH have also extended financial, technical and other support to India. The NIH works with India on mental health and neurological and addictive disorders. Of the total US assistance to India of US\$ 2.8 billion since 1991, more than half has gone into healthcare. The two have also partnered with other countries and agencies to reduce HIV infections by 37 percent globally between 2010 and 2019. They have combated TB together since 1998, working with WHO to develop disease detection capacity at the district, state and national levels in India.⁹

“The US-India Health Initiative was launched in Geneva in May 2010, with four pillars: non-communicable diseases; infectious diseases; strengthening health systems and services; and maternal and child health.”

The Pandemic and Its Aftermath

The COVID-19 pandemic intensified bilateral health cooperation between India and the US, while highlighting existing lacunae in the mechanisms and scope of cooperation between the two.

The supply chain already built up was critical to ensuring India's supply of the anti-malarial drug Hydroxychloroquine (HCQ) to the US and the rest of the world; the drug was part of the early protocol for treating COVID-19 patients. By April 2020, India had cleared¹⁰ the export of 3.58 million tablets of HCQ along with nine metric tons of APIs. Alongside the governments, various private players in both countries also forged new engagements to boost bilateral health cooperation.^a

However, as India reeled under the impact of a deadly second wave beginning in March 2021, the US invoked the Defence Production Act (DPA) to impose an embargo on export of raw materials needed to manufacture vaccines. It directly impacted India's ability to do so.¹¹ The DPA, an emergency law from the Korean War era, was used to prioritise manufacturing for domestic purposes.

US President Joe Biden appeared to have attempted to make amends soon after, announcing in late April 2021¹² that the US would provide COVID-19 mitigation supplies to India, including rapid diagnostic tests (RDTs), personal protective equipment (PPE) kits, vaccine manufacturing supplies, oxygen cylinders, oxygen concentrators, and oxygen generation units. A team of US experts worked closely with their Indian counterparts on these systems. The US redirected Astra Zeneca's vaccine manufacturing supplies, which were part of its own order, to India, enabling the latter to make over 20 million doses of the COVID-19 vaccine.

a For example, Pfizer donated masks, PepsiCo supplied testing kits and meals in India, GSK Pharma provided a range of medical assistance, while Gilead Sciences donated supply of the COVID-19 treatment drug, Remdesivir. Indian companies such as Tata Consultancy Services (TCS) and Oyo provided free educational and medical services in the US to help fight the pandemic. TCS worked closely with the U.S. Chamber of Commerce Foundation, which was coordinating the business community's response, in partnership with U.S. India Business Council, White House, U.S. Department of State and other organisations. OYO hotels opened its hotels to medical first responders in the US and offered free stays to doctors, nurses and other medical first responders. See: <https://www.tmc.edu/news/2020/08/baylor-college-of-medicine-to-develop-covid-19-vaccine-with-biological-e-limited/>; <https://www.tcs.com/corporate-social-responsibility/covid-19-response-india>; https://economictimes.indiatimes.com/magazines/panache/corona-crisis-oyo-offers-free-stays-to-doctors-nurses-in-us-ivanka-trump-paytm-boss-bowled-over-by-gesture/articleshow/74804444.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst etc.

The Pandemic and Its Aftermath

The US's April 2021 decision was also critical in ensuring the supply of therapeutics, as it pledged to deliver 20,000 treatment courses of the antiviral drug Remdesivir to India, releasing the first tranche immediately. It helped India with public health assistance, the CDC working closely with India in “laboratory, surveillance and epidemiology, bioinformatics for genomic sequencing and modelling, infection prevention and control, vaccine rollout, and risk communication.”¹³

US institutions have partnered with Indian companies to develop COVID-19 vaccines. The Baylor College of Medicine entered into a licensing agreement with Hyderabad-based Biological E (BE) to develop Corbevax,¹⁴ which was cost-effective and patent-free and was approved for emergency use. Maryland-based Novavax produced Covavax together with Pune-based Serum Institute of India. Merck's COVID-19 drug Molnupiravir is being produced by several Indian companies at a cost up to 35 times lower; it has reduced the hospitalisation rate by half in clinical trials of high-risk people with COVID-19.¹⁵ In January 2022, Dr Reddy's Laboratories announced¹⁶ the launch of its generic version of Molnupiravir. Other collaborations include those between Hyderabad-based Bharat Biotech and Precision Virologics (in St. Louis, Missouri); Bharat Biotech and Thomas Jefferson University, Philadelphia; Serum Institute of India and Codagenix (in Farmingdale, New York); Serum Institute and Novavax (Gaithersburg, Maryland); Bharat Biotech and University of Wisconsin-Madison along with Wisconsin-based FluGen; and Pune-based Gennova with HDT Biotech Corporation, Seattle.¹⁷

The pandemic has also led to both countries promising long-term cooperation focused on domestic and international health priorities. As COVID-19 related deaths in the US crossed 500,000 in February 2021, government officials voiced¹⁸ the need for an ‘overarching’ MoU with India to strengthen their health partnership, underscoring the fact that both India and the US already had existing structures to facilitate broader cooperation. They increased collaboration through an International Centre of Excellence in Research focused on infectious diseases, including COVID-19, working together on developing diagnostics, therapeutics and vaccines, which they sought to make available globally.¹⁹

The White House has claimed that up to April 2021, the US's COVID-19 assistance reached about 9.7 million Indians. US government agencies and private companies partnered with more than 1,000 Indian healthcare facilities, training over 14,000 doctors, nurses, midwives, community volunteers, and sanitation workers in infection prevention and control related to the pandemic, thus helping to keep more than 213,000 frontline workers safe. It also provided 200 state-of-the-art ventilators to 29 healthcare facilities in 15 states to care for critically ill COVID-19 patients. The two countries also launched a joint messaging platform with UNICEF to spread awareness.²⁰

The Quad Vaccine Partnership

In March 2021, COVID-19 vaccine cooperation expanded with the announcement that 1 billion vaccines in Asia would be distributed through the Quad—or the Quadrilateral Security Dialogue of Australia, India, Japan, and the US.²¹ With India being one of the largest suppliers of pharmaceuticals to low- and medium-income countries (LMICs), its already existing supply chains in Asia proved useful in fulfilling the Quad’s bilateral and multilateral commitments. About 1 billion doses of the AstraZeneca vaccine, manufactured locally by the Serum Institute of India as Covishield, were exported by the end of 2021.²²

The Quad vaccine partnership sought to draw on the strengths of each of its four members. Among its priorities was delivery of safe, effective and timely vaccines to the Indo-Pacific region. To ensure global standardisation, the vaccines were put through the Stringent Regulatory Authorities (SRA) check. Financing and logistics, including procurement logistics, were crucial. Institutions such as the US Developmental Finance Corporation (DFC), the Japan International Cooperation Agency (JICA), and the Japan Bank of International Cooperation (JBIC) financed Biological E to boost its capacity, enabling it to produce 1 billion doses of COVID-19 vaccines by the end of 2022.

Australia contributed US\$ 77 million for vaccines and last-mile delivery support focused on Southeast Asia. This was in addition to its earlier commitment of US\$ 407 million for regional vaccine access and health security to Pacific Island countries and support of procurement, preparation for vaccine delivery, and strengthening of health systems in Southeast Asia. For its part, Japan helped vaccination programmes of developing countries, including the purchase of vaccines and cold-chain support, through grants-in-aid worth US\$ 41 million and concessional yen loans, ensuring alignment with and support to the UN’s COVID-19 Vaccine Access (COVAX) initiative. The US, meanwhile, contributed US\$ 100 million focused on immunisation, while India helped through manufacturing, supply chains, and distribution.²³

Another important step in cooperation has been the Quad Vaccine Experts Group, where scientists and officials from the four countries have begun long-term cooperation towards a range of objectives. These include designing an implementation plan for Quad COVID-19 vaccines; identifying issues impeding vaccine administration in the Indo-Pacific; boosting last-mile delivery; and strengthening and supporting the work of organisations such as WHO, COVAX, the vaccine alliance Gavi, the Coalition for Epidemic Preparedness Innovations (CEPI), UNICEF, the G7 countries,^b and the Association of South East Asian Nations (ASEAN).²⁴

^b G-7 countries are Canada, France, Germany, Italy, Japan, the UK and the US.

The Quad Vaccine Partnership

The Quad countries are integrating their efforts by providing greater access to one another's government facilities to coordinate and build on existing health security and expand development. In the long term, the vaccine partnership also seeks to export vaccines outside the Indo-Pacific region.

“Drawing on the strengths of each of its four members, the Quad prioritised the swift delivery of safe and effective vaccines to the Indo-Pacific region.”

The Global Health Security Agenda

Several years before the pandemic, in 2014, the US had helped launch the Global Health Security Agenda (GHSA) to identify, prevent and respond to the threat from infectious diseases. Today, more than 70 countries are part of the initiative, as well as non-government organisations (NGOs), international organisations, and private sector entities. For both India and the US, the GHSA 2024^{c,25} – an agenda to achieve global standardisation in health objectives by 2024 through compliance with International Health Regulations (2005)^{d,26} – is another useful framework of commitment.

As COVID-19 caused more than 4.5 million deaths across the globe, the US put health security at the top of its national security agenda. It refocused the GHSA towards two main objectives: fighting the pandemic, and strengthening health systems globally to prepare for future threats.²⁷ The GHSA is also the overarching framework mechanism for India and the US to align their collaborative efforts in public health, with India's cost-effective drug manufacturing providing many opportunities to do so.

As India and the US move to integrate their enhanced COVID-19 generated collaboration into the larger bilateral framework of health cooperation, it is also important for them to align priorities in their national missions. The USAID's new Vision for Health System Strengthening 2030, which frames the collaborative effort between public health, communities, and healthcare, could have areas in common with India's National Health Mission, enabling further cooperation. The US's Global Nutritional Coordination Plan could be one potential area.

c GHSA 2024 is a commitment by all its member-countries to: (a) develop sustainable financing mechanisms for global health security; promote multi-sectoral collaboration to improve capacities (c) improve information sharing across member countries and (d) strengthen accountability of member country commitments.

d IHRs are legally binding rules on all WHO members to prevent, protect against, control and provide a public response to the international spread of diseases.

Even before the COVID-19 outbreak, trade disputes between India and the US had been impeding bilateral cooperation. This cast its shadow on health cooperation, too. The US announcement in March 2019 that it would remove India from its Generalized System of Preferences (GSP) was a blow to US-India cooperation in a number of sectors, including health. The GSP program, launched in 1975, had been designed to promote economic development and diversification among developing countries by encouraging their exports to the US.²⁸ The GSP was critical in enabling India to export duty-free goods worth US\$ 5.6 billion, comprising 12 percent of its exports, to the US annually.²⁹ The Trump administration accused India of having a biased market access structure through its “wide array of trade barriers that create serious negative effects on US commerce.”

The US’s step was in retaliation for India’s decision, in 2017, to cap the prices of two types of medical devices imported from the US in large numbers—knee implants and stents.^e With India importing nearly 80 percent of its medical devices, the market, estimated at US\$10 billion, is an attractive export revenue generator for US firms.³⁰ The US felt that India was drawing undue benefit from the GSP, while India considered stents and knee-implants ‘essential medicines’ whose prices should be regulated. There has been some rethinking in the US since then,³¹ and India too, has pushed for GSP restoration. It highlighted the issue at the 12th ministerial-level meeting of the India-United States Trade Policy Forum (TPF) in New Delhi in November 2021. US officials have claimed that only the US Congress can decide.³²

India has also taken steps to reduce the asymmetry in market access that the US accused it of. Since 2019, it has focused on providing more access to cutting-edge, health-related technologies from the US rather than worry about pricing.³³ At the fourth India-US Health Dialogue in New Delhi in September 2021, India’s Health Minister Mansukh Mandaviya announced an overarching MoU with the US on cooperation in health and biomedical sciences, including in domains such as environmental and occupational health, injury prevention and control, and climate change and human health.³⁴ Another MoU signed at the same time continued joint support to the Indo-US International Centre of Excellence in Research (ICER) programme headquartered at the National Institute for Research on Tuberculosis in Chennai.³⁵ The ICMR also renewed its agreement with the US National Institute of Allergy and Infectious Diseases (NIAID) to undertake collaborative research on infectious diseases of global significance.

e Stents are used to ensure that a passageway, such as a vein, remains unblocked.

Lessons from the Pandemic

A key lesson from the pandemic was the need to build resilient global supply chains. During the pandemic, when lockdowns caused widespread disruption of supply chains, India and the US worked in tandem to counter shortages.

The US-India Health Initiative needs to be complemented by a US-India Strategic Health Dialogue for long-term cooperation. India and the US can combine their strengths in low-cost manufacturing and sustainable and expansive supply chains, respectively, for global distribution of medicines and equipment. Such a dialogue will provide the two countries a platform to prepare for threats to their respective health sectors.³⁶

India and the US can further cooperate in areas such as infectious disease modelling, predicting and forecasting; building institutional capacity to manage bio-safety; digital healthcare; and occupational health hazards. Collaboration in innovative health technologies remains unexplored and should be increased. The COVID-19 experience has set the stage for launching new technologies that boost tele-medicine, build new remote diagnostic tools, and store data better for medical research and patient management systems.


The pandemic has caused a spike in the demand for personal medical devices, providing a huge opportunity for joint production of these at affordable rates. At present, there is a vast difference in the prices of such equipment in the two countries; those made in India are much cheaper. However, such cooperation could require access to a lot of user data, and both governments need to prepare mechanisms to protect the privacy of patients and regulate medical data. Again, as India embarks on ensuring online health services to its vast rural population, the US could be a useful partner in both enabling access and reducing costs.³⁷

Certain geographies may prove particularly relevant in the future. Houston in Texas, for example, emerged as a crucial location for India-US cooperation during the pandemic, owing to its large medical centres and prominent institutions such as the Texas Medical Centre which had established links with India. Technology sharing, manufacturing and partnering in supply chains of companies in Houston helped facilitate collaborations between India and the US. Specific mention should also be made of the Indian diaspora in the US, with Indian-American executives raising some US\$ 600,000 for COVID-19 relief through their leadership network.³⁸ Separately, two other groups of US Indians collected another US\$ 25 million.³⁹

The COVID-19 pandemic posed extraordinary challenges to the health systems of both India and the US. While the longstanding channels of cooperation in the health sector between the two countries proved critical in furthering cooperation, the pandemic opened new avenues of collaboration as well. It has given the two countries an opportunity to prepare for future threats by strengthening existing channels and facilitating planning.

The pandemic tested the capacity of the existing health infrastructure of both countries. It showed that local mechanisms are not sufficient; cooperation is critical, which in turn can be expanded to other domains such as lifestyle diseases.

Much has changed since 1996 when the US accused India of non-compliance with some of the articles in the Trade Related Aspects of Intellectual Property Rights (TRIPS) agreement relating to the pharmaceutical industry.⁴⁰ Today, as this brief has highlighted, India and the US are cooperating on public health as well as global health security. Yet, scope for improvement remains. The challenges which emerged at the peak of the COVID-19 pandemic have underscored the need for a specific dialogue architecture in the health sector between the two countries.

Enhanced cooperation in the health sector will have ramifications in other sectors, too—at both the bilateral and multilateral levels. It will be felt in the geopolitical space of the Indo-Pacific, and become part of the integration in cooperation that both the US and India seek in the region. Strong and predictable supply chain lines in the Indo-Pacific will have strategic potential in times of geopolitical crises. With China remaining opposed to conceptual and pragmatic gains of Indo-Pacific countries, as well as to a strong US-India partnership, the two sides must work together to erect mechanisms that will prevent any possible hostile disruption of supply chains. 

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