

# Our work and capabilities in India and Nepal

## Overview

PATH envisions a world in which all countries have supply chains that connect people with the practices and information they need so that lifesaving drugs, vaccines, and commodities are available on time, in sufficient quantity, and at a reasonable cost to everyone who needs them. For more than 35 years, we have collaborated with a variety of international and in-country public- and private-sector stakeholders to:

- Deploy information and communications technology solutions that make it easier to assess and use data in decision-making.
- Advance novel cold chain equipment to safely and cost-effectively store and transport temperature-sensitive products—even in remote areas lacking consistent access to electricity.
- Improve product presentations and packaging to decrease volumes for transport and disposal, bundle essential product components, and reduce product loss.
- Provide technical assistance to help ministries of health identify and test appropriate solutions from local and global sources, set policies, and bring their voices to global health discussions.
- Advise the private sector on improved handling of vaccine and temperature-sensitive pharmaceuticals and influence public policy on private health care regulation.

## PATH in India and Nepal

With more than 120 staff working throughout India,<sup>1</sup> PATH builds on strong relationships with the governments of India and Nepal to mobilize stakeholders and accelerate proven solutions that reduce the burden of infectious and neglected tropical diseases; improve reproductive, maternal, and child health and nutrition; support human milk banking; strengthen health systems; and empower communities.

Our efforts to strengthen supply chains in India and Nepal have centered on the development, introduction, and



Photo: PATH

scale-up of technology and system innovations that increase the efficiency and effectiveness of public health programs in the region.

## Evaluation of equipment and interventions

From 2015 to 2017, PATH collaborated with India's Immunization Technical Support Unit, deploying and evaluating three novel technologies, including a second-generation ice-lined refrigerator, solar direct-drive refrigerator, and long-term passive vaccine cooler for use at health facilities in low-resource settings. Testing was conducted in Meghalaya, Uttar Pradesh, Rajasthan, and Uttarakhand, India, to assess the performance, acceptability, costs, and systems fit.

PATH provided technical support to Indian manufacturers of freeze-preventive vaccine carriers and helped them obtain prequalification from the World Health Organization (WHO) Performance, Quality and Safety committee.

More recently, PATH piloted three WHO-prequalified freeze-preventive vaccine carriers (from three separate manufacturers). Testing was conducted in 24 health posts in two districts of Nepal to assess the performance, acceptability, costs, and systems fit. These new carriers will also be evaluated in India. Larger, freeze-preventive cold boxes will later be evaluated in Nepal.

<sup>1</sup> PATH's head office in India is located in New Delhi. We also have regional offices in Lucknow and Maharashtra.

## Health systems strengthening

PATH assisted the government of India with hepatitis B vaccine introduction in Andhra Pradesh and then aided nationwide implementation as well as assisted with Japanese encephalitis (JE) vaccine introductions in 15 states. For the latter, PATH helped to identify an affordable JE vaccine candidate and supported demand and forecast assessments as well as the negotiation of price. For both introductions, PATH helped strengthen vaccine logistics and cold chain management practices, trained frontline health workers on microplanning, and supervised immunization sessions for quality.

Other examples include our Saving Children's Lives Through Immunization project in Madhya Pradesh, which increased routine immunization coverage for young children. PATH's Strengthening Immunization in Mumbai Slums project also ensured accessibility and improved service delivery through use of innovative tracking mechanisms that better enabled beneficiary follow-up.

More broadly, market research conducted by PATH has provided insights on the procurement and vaccine forecasting systems in India, with a focus on (1) vaccine stability characteristics and storage of heat-stable vaccines at controlled ambient temperatures; (2) ideal presentation and packaging formats for future vaccines; and (3) methods to improve the ability of national immunization programs to influence and select vaccine products to meet their needs.

In addition, our Cold Chain Equipment Manager, a software tool to forecast cold chain equipment requirements to the facility level, has been implemented in two Indian states. Using this tool, cold chain inventory data are collected and stored, helping the government to build an evidence-based investment case for future equipment purchases and upgrades.

Research conducted in 2019 in India and Nepal contributed to the Vaccine Innovation Prioritisation Strategy work, a partnership between Gavi, WHO, the United Nations Children's Fund, the Bill & Melinda Gates Foundation, and PATH. PATH collected information from decision-makers and frontline health workers on nine vaccine innovations. This research contributed to the final prioritization of microarray patch delivery devices, heat-stable and controlled temperature chain qualified vaccine formulations, and

barcodes for vaccines. These innovations will now benefit from coordinated efforts to support their advancement.

## Advocacy

PATH advocated with the government of India for the introduction of vaccine vial monitors on JE vaccines, influencing policy and contributing to the adoption of vaccine vial monitors for use with all Universal Immunization Program vaccines.

We have also influenced policy through participation on the National Technical Advisory Group on Immunization. In addition, based on piloting a new cold chain technology project, new technology specifications have been included in the India government's procurement guidelines.

## Partners

Collaborations across all sectors have proven integral to our strategy for demonstrating impact and taking innovations to scale. Key partners in India have included WHO; the United Nations Children's Fund; the Public Health Foundation of India and its technical arm, the Immunization Technical Support Unit; Serum Institute of India Limited; and the BP Koirala Institute of Health Sciences, Dharan, Nepal.

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## Contact information

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PATH is a global organization that works to eliminate health inequities by bringing together institutions, businesses, investors, and individuals to solve the world's most pressing health challenges. With expertise in science, market development, technology, advocacy, and dozens of other specialties, PATH develops and scales solutions—including vaccines, drugs, devices, diagnostics, and innovative approaches to strengthening health systems worldwide.

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