Looking to the future

- Promote improved efficiency of vaccine and cold chain management by upscaling eVIN in all the remaining states and Union Territories of India.
- Automate the process of inverting and supplying vaccines using an order management module, based on historical actual consumption of vaccines and forecasting.
- Build upon and upscale VALUE (Vaccine and Logistics Utilization Evaluation)—a hand-held device for capturing the data of vaccines administered, taking eVIN a step further to monitor reach to last-mile beneficiaries.

Background

The Ministry of Health and Family Welfare in India aims to reduce morbidity and mortality from vaccine-preventable diseases through its Universal Immunization Programme (UIP). However, despite significant progress towards ensuring timely and safe vaccination to every child and pregnant woman, there is a widespread inequality in immunization coverage. In addition to social and demographic restraints, a critical constraint is the limited availability of cold chain infrastructure and lack of real-time visibility of stocks and storage temperatures for effective vaccine management.

Challenges relating to infrastructure, monitoring and management information systems, constraints of human resources, including technical capacities, are some of the gaps identified in cold chain and vaccine logistics management. These limitations often affect equipment maintenance and vaccine distribution leading to overstocking and stock-outs, thereby hindering complete and effective vaccine coverage.

About the project

In partnership with the Ministry of Health and Family Welfare, the Government of India, UNDP aims to support the UIP through designing and implementing an Electronic Vaccine Intelligence Network (eVIN), and strengthening the evidence base for improved policy making in vaccine delivery, procurement and planning for new antigens. Supported by Gavi—the Vaccine Alliance, the health systems strengthening project aims to streamline and harmonize the vaccine flow network by ensuring data-driven and efficient management of the immunization supply chain. The goal is to ensure equity in easy and timely availability of vaccines to all children. This will be achieved by systemizing vaccine record-keeping, digitizing vaccine inventory, empowering cold chain handlers through capacity building, and tracking real-time temperature information of the cold chain equipment across all the vaccine storage cold chain points in the country.

UNDP supports the Ministry of Health and Family Welfare by:

- Strengthening the immunization supply chain management by implementing eVIN, an online real-time vaccine logistics management system, across all the 723 districts of 28 states and 9 Union territories.
- Facilitating real-time monitoring of temperature of cold chain equipment by installation of nearly 50,000 temperature loggers at over 27,000 cold chain points where vaccines are stored.
- Developing vaccine and cold chain management in all the districts for constant support to estimate vaccine requirements, supervise cold chain handlers and ensure effective adoption and use of eVIN.
- Coordinating and commissioning research on immunization to plug vital information gaps in the immunization programme.

Developments so far

- Avoided the preparation of states for adopting eVIN through a survey of the entire immunization cold chain network, enlisting details of personnel and processes.
- Designed and implemented eVIN to enable real-time information on cold chain immunizations and vaccine stocks and flows in 508 districts, across 27 states and Union territories—Andhra Pradesh, Assam, Bihar, Chhattisgarh, Daman and Diu, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Madhya Pradesh, Maharastra, Manipur, Nagaland, Odisha, Rajasthan, Telangana, Tripura, Uttar Pradesh and Uttarakhand.
- Facilitated capacity building of more than 32,000 government staff, including storekeepers, data entry operators and cold chain handlers, through training programmes using mobile and web-based eVIN applications, more than 20,238 vaccine stores and cold chain points leading to greater accessibility, informed decision-making and efficient vaccine management.
- Ensured efficient vaccine record-keeping by providing standard stock and distribution records authorized by the Government of India at every cold chain point.
- Ensured accurate temperature monitoring by installing more than 14,500 temperature loggers for facilitating safety of vaccines, promoting corrective action and preventive maintenance of cold chain equipment.
- Achieved over 90% reduction in instances of vaccine stock-outs, and ensured improved availability of adequate and potent UPI vaccines to all targeted children and pregnant women.
- Achieved reduction in utilization of vaccines from 2,051 lakh doses in pre-eVIN period to 1,249 lakh doses in post-eVIN period across the initial 12 eVIN states, resulting in on-time vaccination, and effective monitoring and management information systems.
- Achieved over 99% availability rate of vaccines at all cold chain points.
- Systemized processes by initiating corrective action to rewire target population for cold chain points that were earlier out-of-sync, improve vaccine storage infrastructure and encourage effective planning and distribution.
- Supported evidence generation to coordinate the Vaccines and Immunization Research Network (VINR) and the Scientific Advisory Group (SAG) of the Ministry of Health and Family Welfare, and commissioning research grants.

SDGs: SDG 1, SDG 3, SDG 10

PROJECT INFORMATION

Area: Health, Systems Strengthening
Budget: 1US$ 98 million
Duration: 2017-2021
Partner: Ministry of Health and Family Welfare, Government of India
Location(s): All 28 states and 9 Union territories
SDGs: 10d.1, 10d.1, 10d.10

Systems Strengthening
