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HEALTH



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Improving Efficiency of Vaccination Systems in Multiple States

PROJECT INFORMATION

Area: Health, Poverty Reduction

Budget: US\$ 41 million

Duration: 2014-2021

Partner: Ministry of Health and Family Welfare, Government of India

Location(s): All 707 districts in 29 states and 7 union territories of India

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, there exists a widespread inequality in coverage. In addition to social and demographic restraints, a critical constraint is the limited availability of cold chain infrastructure and effective vaccine logistics management system for routine UIP vaccines.

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 wastage, over-stocking and stock-outs, thereby hindering complete and effective vaccine coverage.

About the project

In partnership with the Ministry of Health and Family Welfare, Government of India, the United Nations Development Programme aims to support the UIP through designing and implementing the Electronic Vaccine Intelligence Network (eVIN), and strengthening the evidence base for improved policy-making in vaccine delivery, procurement and planning for new antigens. Integrating innovation with healthcare, eVIN aims to strengthen the vaccine supply chain to ensure equity in vaccine availability.

Supported by Gavi- The Vaccine Alliance, the Health System Strengthening project aims to streamline and regularize vaccine flow network by ensuring data-driven and efficient management of 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, digitalizing 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.

Developments so far

- Designed and implemented eVIN to enable real time information on cold chain temperatures and vaccine stocks and flows at nearly 10,500 vaccine stores and cold chain points in all the 371 districts of Assam, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Manipur, Nagaland, Odisha, Rajasthan and Uttar Pradesh.
- Achieved a regular reporting rate of more than 98% from these vaccine storage points
- Logged in over 2 million vaccine transactions online on the eVIN server every month.
- Assessed the preparedness of states for adopting eVIN through a survey of the entire immunization cold chain network, enlisting details of personnel and processes.
- Capacity-building of more than 17,000 government staff including cold chain handlers, vaccine store keepers and data entry operators through more than 550 batches of training programmes on using the eVIN application.
- Trained all the District Immunization Officers in Madhya Pradesh, Nagaland, Rajasthan and Uttar Pradesh on using the eVIN web interface for analytics.
- Strengthened the state immunization system by deploying vaccine and cold chain managers in all the districts for constant support to estimate vaccine requirements, supervise cold chain handlers and coordinate with cold chain technicians across the district.
- Facilitated efficient vaccine record-keeping by providing standard stock and distribution registers authorized by the Government of India at every cold chain point.
- Ensured accurate temperature monitoring by installing nearly 7,500 temperature loggers in Madhya Pradesh, Rajasthan and Uttar Pradesh.
- Monitored more than one –fourth of all the Mission Indradhanush districts as National Monitors and collected information on baseline and follow up coverage rates.
- Encouraged deeper understanding of the print media discourse on immunization across states, through a routine analysis of leading newspapers in English, Hindi and Urdu and furnishing monthly and annual reports.
- Supported evidence generation to guide the UIP by coordinating the Vaccines & Immunization Research Network (VIRN) and Scientific Advisory Group (SAG) of the Ministry of Health and Family Welfare and commissioning research grants.
- Supported the state governments in cold chain space assessment for introduction of the Rota Virus Vaccine, and re-allocation of cold chain equipment to meet the requirements. The team also supported rolling-out of field trainings and implementation of operational guidelines.
- Supported the Ministry of Health and Family Welfare for the Measles Rubella Campaign in planning, assessment of preparedness, monitoring and supportive supervision.

Looking to the future

- Ensure efficient temperature monitoring at cold chain points through complete installation of temperature loggers on cold chain equipment in the remaining 202 districts of the implementing states.
- Promote improved efficiency of vaccine and cold chain management by upscaling eVIN in the remaining 17 states and 7 union territories of the country.

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