**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, even 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 overstocking 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, 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 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.

UNDP supports the Ministry of Health and Family Welfare by:

- Implementing eVIN, an online real-time vaccine logistic management system, in 376 districts in 12 states of the country
- Facilitating real-time monitoring of temperature of cold chain equipment by installation of more than 15,000 temperature loggers at over 10,000 cold chain points where vaccines are stored at the state and district level
- Building capacity of nearly 16,000 government personnel for vaccine and cold chain logistic management on eVIN
- Developing a national monitoring and evaluation framework for the immunization programme
- Coordinating and commissioning research on immunization to plug vital information gaps in the immunization programme

Developments so far

- Designed and implemented eVIN to enable real time information on cold chain temperatures and vaccine stocks and flows in all the 160 districts of Madhya Pradesh, Rajasthan and Uttar Pradesh
- 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 7,000 government staff including store keepers, data entry operators and cold chain handlers through training programmes using mobile and Web-based eVIN application, across 4,475 vaccine stores and cold chain points
- 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 more than 2,000 temperature loggers
- 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

Looking to the future

- Ensure efficient temperature monitoring at cold chain points through complete installation of temperature loggers across Madhya Pradesh, Rajasthan and Uttar Pradesh
- Assess processes and identify gaps in immunization cold chain network in nine states of Assam, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Manipur, Nagaland and Odisha
- Promote improved efficiency of vaccine and cold chain management by upscaling eVIN in nine above-mentioned states

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