Improving Efficiency of Vaccination Systems in Multiple States

**Background**

The Ministry of Health and Family Welfare aims to reduce morbidity and mortality from vaccine-preventable diseases through its Universal Immunization Programme (UIP). However, despite significant progress of the programme in India, several key factors cause inequities in vaccination coverage such as gender, order of birth, residential location, wealth, education of parents, demography including religion and caste, access to health care and community literacy. In addition to social and demographic constraints outlined above, a critical constraint is the limited availability of cold chain infrastructure and vaccine logistics management (VLM), even for routine UIP vaccines.

In the recent years, systematic efforts have identified gaps and addressed issues in cold chain and vaccine logistics management. The limitations are as follows:

1. Inadequate and poor infrastructure
2. Human Resource issues, including technical capacities
3. Weak monitoring and Management Information System issues
4. Vaccine management

These limitations often lead to inefficient vaccine coverage because of frequent equipment breakdowns, overstocking and stock-outs, inadequate monitoring and supervision, high rates of breakdown of equipment, overstocking and stock-outs, inadequate monitoring and supervision, and poor management.
About the project

- Strengthen cold chain management in poor-performing states through improved human resources capacity, institutional strengthening and supporting supervision
- Design and implement an electronic vaccine intelligence network (eVIN), which will enable real-time information on cold chain temperatures, vaccine stocks and flows
- Increase the demand for routine immunization through a national behavioral change communication strategy
- Strengthen the evidence base for improved policy-making in programmatic areas like procurement, vaccine delivery, sequencing and adoption of new antigens
- Leverage the success of the National Polio Surveillance Project to strengthen routine immunization service delivery in 8 priority states

UNDP contributes to the second and fourth objectives

Developments so far

- Completed Market survey of the current capacity and availability of the agency to implement eVIN, including temperature monitoring completed
- Proposals to develop an eVIN software solution, temperature loggers and deployment of Human Resources up to the district level in advanced stages of completion
- Completed rapid assessment of the preparedness of states and districts for the implementation of eVIN in Madhya Pradesh, Rajasthan and Uttar Pradesh
- Development of the National Monitoring and Evaluation Framework for India's Universal Immunization Programme underway
- Routinely undertake media analysis of routine immunization coverage in Hindi English and Urdu newspapers across 12 states of India and compiling monthly immunization dashboards
- Undertake the baseline survey for the Government of India Mission Indradhanush campaign for Routine Immunization
- Establish a project team of more than 20 staff, who are supporting the cold chain and vaccine management in states of Uttar Pradesh, Madhya Pradesh and Rajasthan
- Compile macro assessment data of on cold chain and vaccine logistic management and immunization human resources in 10 percent of the project districts, covering nearly 700 Cold-Chain points in 7 Districts of UP, 6 of MP and 4 of Rajasthan
- Concept and strategy on a long-term longitudinal study on immunization has been approved and will be implemented in the 12 states
- Adverse Events Following Immunization study has been approved and will be undertaken in the 9 states of the country

Looking to the future

UNDP intends to continue supporting the Ministry of Health and Family Welfare by:

- Developing and implementing an online real-time vaccine logistic management system in 160 district of Madhya Pradesh, Rajasthan and Uttar Pradesh
- Implementing real-time monitoring of temperature in more than 5,000 cold chain points where vaccines are stored at the state and district level
- Building capacity of more than 8,000 government personnel for the vaccine logistic and cold chain management
- 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

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