

Salient Strengths and Areas for Improvement:

AURANGABAD

Criteria	Strength	Areas for Improvement
E2: Temperature	<ul style="list-style-type: none"> • Good knowledge of temperature record and freeze sensitivity. • Temperature logbook found at most of the sites. 	<ul style="list-style-type: none"> • Working thermometer not found in each and every equipment. • Cold chain handler (CCH) not able to read thermometer properly in some facility. • Temperature logbook not regularly reviewed by Medical Officer-in-Charge (MoIC)/District Immunisation Officer (DIO)/at any other district official. • No mention of remarks such as power failure, defrosting, make and model number of cold chain equipment (CCE).
E3: Storage Capacity	<ul style="list-style-type: none"> • All antigens stored in ice lined refrigerator (ILR). • Knowledge about stocking of vaccines in ILR is found good. • Ice pack freezing capacity found good. • Staff knowledge about emergency vaccine management found satisfactory. 	<ul style="list-style-type: none"> • As per target population, vaccine storage capacity in ILR found inadequate in most of the sites. • Vaccine not stored in proper ILR basket. • Vaccine contingency plan not highlighted as per standard operating procedure (SOP). • No dedicated dry space.
E4: Building, equipment, transport	<ul style="list-style-type: none"> • CCE found functional in existing building, well protected from rainwater. • Floor dry and reasonably level. 	<ul style="list-style-type: none"> • Some building lack minimum required standard such as ventilation, cleanliness, free from cracks, seepage and safe electrical wiring. • Many repairable cold chain equipment and condemned equipment found in some sites. • No space for passive containers. • Regular preventive maintenance plan of building and fire extinguisher not found. • Vehicle user manual followed but vehicle logbook not updated. • Functional voltage stabilizer not found in some of the source. • Tele communication link not functional at some sites.
E5: Maintenance	<ul style="list-style-type: none"> • Visual evidence of maintenance of building found at some sites. • Defrosting of ILR found at most sites. 	<ul style="list-style-type: none"> • Planned preventive maintenance of buildings and equipment is not found. • No dedicated person assigned to carry out routine maintenance. • No written planned overhaul programme. • No maintenance manual of vehicle service record of the manufacturers.

E6: Stock management	<ul style="list-style-type: none"> • Ice pack conditioning done during vaccine transportation. • Record of antigens and diluents found in stock register. • Name of vaccine manufacturer, batch number, expiry date of antigen found in most site. • Vaccine vial monitor (VVM) status taken into consideration for effective stock management. 	<ul style="list-style-type: none"> • Thought computerised stock control system is installed at district vaccine store (DVS), stock management not up to date, no antivirus and vaccine presentation in vial size. • No regular data backup practice being followed. • Challan book is not used for every transaction.
E7: Distribution	<ul style="list-style-type: none"> • Effective vaccine distribution plan exists for health facilities. • Health facilities distributing vaccines to session sites through alternate vaccine delivery (AVD) mechanism. • Frozen, expired and damaged vaccines not found at most of the sites. 	<ul style="list-style-type: none"> • No effective vaccine distribution plan exists at DVS and above. • No specific dated for delivery and collection of vaccines. • Number of short shipment for different antigens and different timings. • No accurate knowledge of cold box packing. • Open vials not labelled properly at most places. • No consent of vaccine arrival checks and notification. • Vaccine supply often influenced by quantity rather than planning. • Haphazard vaccine supply and distribution system.
E8: Vaccine management	<ul style="list-style-type: none"> • Good knowledge about VVM. • Utilisation of diluents and manufacturer being practiced. • Safety pit found in almost all sites. • VVM found in stage 1 at most of the sites. 	<ul style="list-style-type: none"> • Poor knowledge and practice of shake test. • Though multi dose vial policy (MDVP) is implemented, no record found in stock register, no record of vaccine wastage at any level. • Knowledge about MDVP is poor. • Poor supportive supervision of routine immunisation (RI) and cold chain. • Poor immunisation waste management.
E9: MIS, supportive Functions	<ul style="list-style-type: none"> • RI micro plan, analysis of vaccine utilization and wastage rate is used for vaccine forecasting. • SOP manual found satisfactory and guidance in the SOPs follow World Health Organisation (WHO) recommendations. 	<ul style="list-style-type: none"> • Vaccine distribution route and job aids exhibited most of the time. • Cold chain equipment inventory not satisfactory.

Salient Recommendations: AURANGABAD

Area	Recommendations
Management Policies	<ul style="list-style-type: none"> • Bihar vaccine and logistics management system (BVLMS) should be scaled up • Regular on the job training or refresher training for stock management and stock update. • Utilization of BVLMS dashboard for vaccine and logistic distribution. • Vaccine notification system should be implemented. • Utilisation of effective vaccine management (EVM) dashboard for evidence based decision regarding vaccine and logistics management. • Strict adherence to immunization SOPs. • MDVP implementation as per guidelines. • Budgetary provision for vaccine logistic manager at regional and district level and loading and unloading at all level.
Human Resource	<ul style="list-style-type: none"> • Dedicated and well recognised (ANM/MPW/Pharmacists) cold chain handler (CCH) must be in place. • Each district should have dedicated full time cold chain technician. • Each district should have dedicated full time district immunization officer. • Vaccine logistic manager must be placed at regional and district level. • Recognized staff for loading and unloading of vaccine.
Infrastructure	<ul style="list-style-type: none"> • Separate regional vaccine store (RVS) building with dedicated staff and equipment required at Aurangabad. • Dedicated dry store to be developed in all the cold chain stores. • Renovation of buildings to meet required standard such as ventilation cleanliness safety, free from crack and safe electrical wiring. • Area to be marked for loading and unloading of vaccine under shade. • Adequate hand washing facilities must be provided. • Dry store and clod store must be under one roof and preferably on ground floor.
Equipment	<ul style="list-style-type: none"> • Additional ILR and deep freezer (DF) must be supplied at all level to meet the storage capacity. • All cold chain must be attached to functional voltage stabilizer. • All vaccine stores must have a standby generator. • Each CCE must have a functional thermometer/data logger. • Each vaccine store should have tool kit and vaccine float assembly. • Ensure equipment are placed on wooden frame. • Speedy disposal of condemned equipment as per government of India (Gol) guideline.
Planning and documentation	<ul style="list-style-type: none"> • Plan preventive maintenance of building, equipment and vehicle. • Separate temperature log book for every equipment, generator log book and vehicle log book maintained all sites. • Effective vaccine distribution plan must be developed and used. • Location of vaccine displayed at equipment and in register. • Maximum – minimum inventory control mechanism for vaccine logistic management. • Earliest-expiry-first-out (EEFO)/First-in-first-out (FIFO) practice for vaccine distribution. • BVLMS must be updated regularly.

	<ul style="list-style-type: none"> National cold chain management information system (NCCMIS) must be updated regularly.
Capacity Building	<ul style="list-style-type: none"> Refresher training on RI and CC of all DIO, Medical Officer (MO), Health Worker (HW) and CCH (Pentavalent, MDVP, Shake test etc.). Capacity building of data entry operators in BVLMS, NCCMIS, Health management information system (HMIS) and Mother and child tracking system (MCTS). Capacity of DIOs and MOs in using Immunisation data for action. Regular refresher training of CCTs. Capacity building of state, divisional, district and block level officials for supportive supervision of RI.
Improvement in practice	<ul style="list-style-type: none"> Strengthen sector meetings (weekly) and monthly meetings at block and district level especially for routine immunization. Regular quarterly meeting of RI at divisional and state level. Knowledge and practice of shake test, conditioning of ice pack, packing of cold box, use of thermometer and MDVP. Regular defrosting and physical verification of stock. Efficient use of vaccine to minimize wastage. Use of challan for vaccine distribution and vouchers for issue of vaccine. Development and display of standard vaccine emergency preparedness plan. Display of current vaccine stock position at all sites. Regular preventive maintenance of all CCE and vehicles. Improve immunization waste management practices.
Supportive supervision	<ul style="list-style-type: none"> Development of supportive supervision micro plan including monitoring metrics at all level. Recognition of supervisors for supportive supervision at all levels. Mobility support to supervisor. Monitor coverage of RI using covering coverage chart. Use of android based technology for supportive supervision. Use of NCCMIS, BVLMS, EVM and supportive supervision dash board for evidence based decision and prioritization. Involvement of development partner and medical college faculties for supportive supervision.