Public Sector Immunization Supply Chain in India

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Why do we need the iSC in the public sector?

- India has one of the largest Universal Immunization Programs (UIP) in the world with an annual birth cohort of more than 27 million infants along with 30 million pregnant women

right quantity

right time

right place

right temperature

right beneficiary

right quality

Vaccinated

Immunized

Protected

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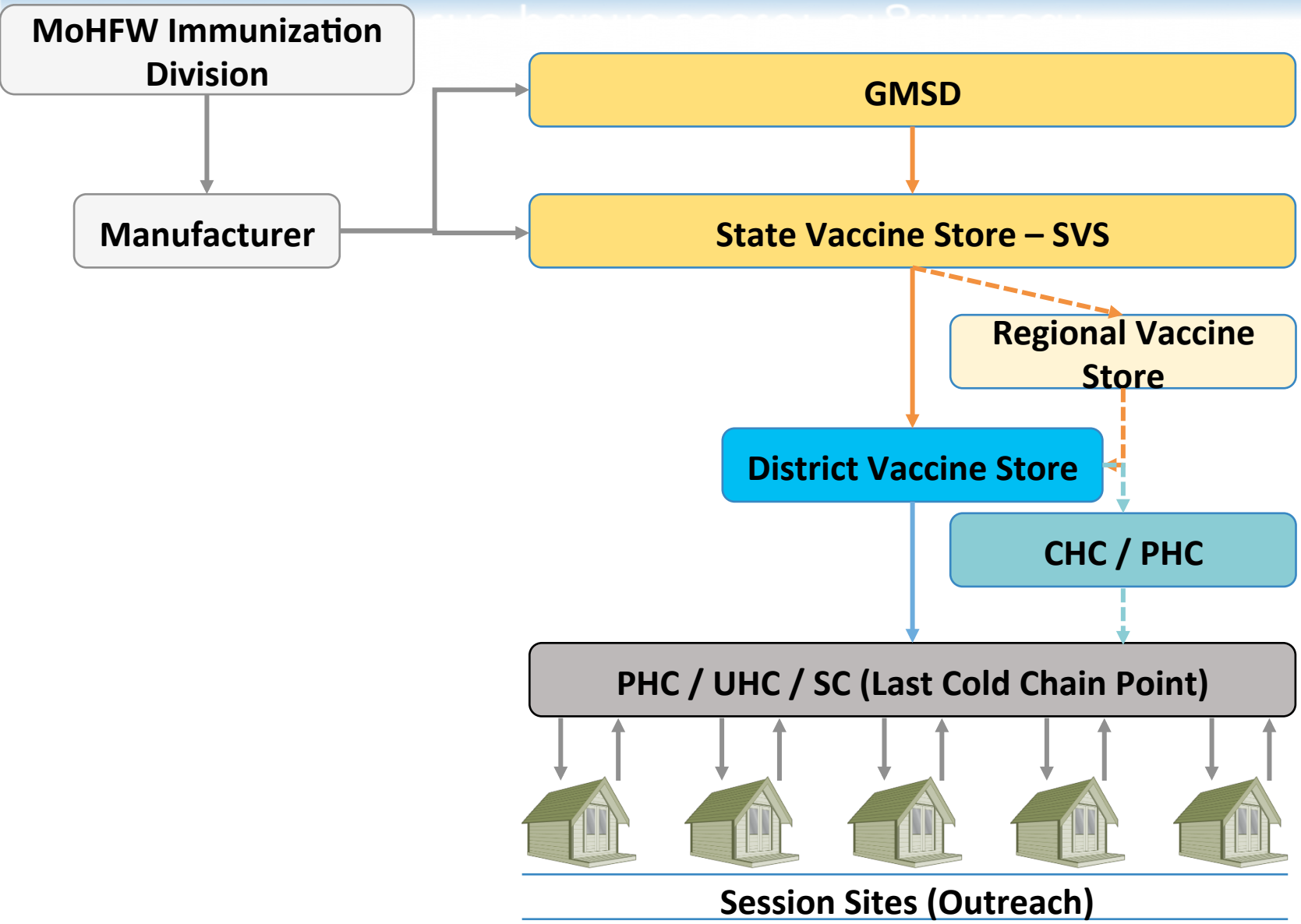
How is the iSC in the public sector organized?



PRIMARY STORES

SUB NATIONAL STORES

LOWEST DISTRIBUTION STORES

SERVICE DELIVERY POINTS

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What numbers are we talking about?

Vaccine Store	Numbers
GMSD	4
State Vaccine stores	53
Regional Vaccine stores	109
District Vaccine stores	666
CHC / PHC / UHC / Other Hospitals / Last Cold Chain Point	25556
Total	26384

Equipment	Numbers
WIC 32 m^3	19
WIC 16.5 m^3	207
WIF 32 m^3	8
WIF 20 m^3	4
WIF 16.5 m^3	31
ILR Large	5342
ILR Small	31864
DF Large	6290
DF Small	28129
Cold box (20 Liters)	32628
Cold box (5 Liters)	26452
Vaccine carrier	1128413

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How much vaccine do we store at each level?

	At State Level	At Regional Level	At District Level	At Sub-District Level
Name of vaccines	**All vaccines under UIP except OPV and RVV**			**All vaccines**
Storage Equipment	WIC	WIC	ILR (L)	ILR (S)
Storage Temperature	+ 2° to +8°C	+ 2° to +8°C	+ 2° to +8°C	+ 2° to +8°C
Maximum stock (months)	2.75	2.75	2.75	1.5
Minimum stock (months)	0.75	0.75	0.75	0.5

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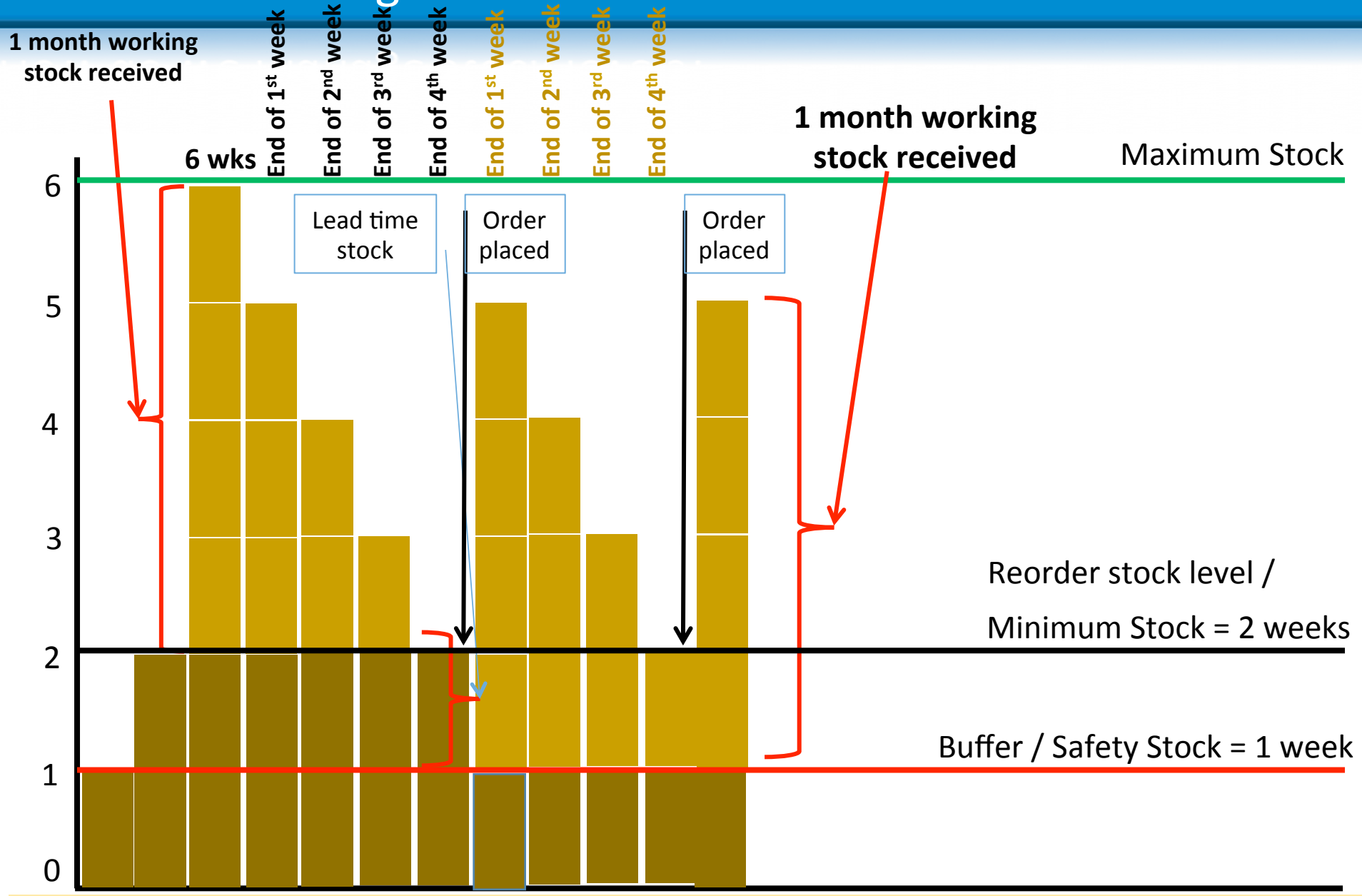
How do we manage stock levels?



***Conditions apply*: Supply cycle = 1month, Lead time = 1week, Sessions are held once weekly**

What are the key principles of distribution that we follow?

- Trained person on VCCH module should be responsible for receiving, storing, distributing vaccines and recording using the standardized vaccine registers
- Records of receipts, distribution and balance should be updated regularly for each type of vaccine and logistics
- Early Expiry First Out (EEFO) or First in First Out (FIFO) for vaccines with same expiry date
- No vaccines / logistics should be utilized beyond expiry date / VVM discard point
- While following the EEFO or FIFO, the VVM status of the vaccine should be given priority
- Check the stock balance of the receiving store
- Vaccines should be properly transported in cold boxes with conditioned ice packs

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What is the Alternate Vaccine Delivery System?

A mechanism to disassociate vaccine administration from vaccine transportation

Advantages of Alternative Vaccine Delivery System

- Helps vaccinators to timely initiate and get adequate time for conducting immunization sessions
- Ensure return from the session site to concerned cold chain point
- Maintain the Vaccine safety and quality
- Assists in reducing the AEFIs
- Improve immunization coverage and reduce vaccine wastage
- Improve community participation in the national program

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How does the AVDS work?

- Only required quantities of vaccine and logistics must be supplied
- Vaccine carrier must have conditioned ice packs
- List of vaccines and logistics (including AD syringes, Hub cutter, Red and Black bags etc.) for each session site must accompany with the vaccines & logistics.
- At the time of supply VVM should not be beyond discard point
- Vaccine carrier should be tightly fit and should not be opened during transportation
- Vaccine vials must be returned to the PHC/ concerned cold chain point the same day

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What is the Open Vial Policy (MDVP)?

Open Vial Policy allows reuse of partially used vials in subsequent session (fixed & outreach) subject to meeting certain conditions. Any vaccine vial to which OVP is applicable can be used after it has been opened for a period of 4 weeks (28 days) from the date of opening of the vial.

Open Vial Policy is applicable to:

- DPT, TT, Hepatitis B,
- Oral Polio Vaccine (OPV),
- Haemophilus influenzae type B (Hib) containing Pentavalent vaccine and
- Inactivated Poliovirus Vaccine (IPV)

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Which vaccine vial would you not use under the OVP?

- Expiry date has passed
- VVM reached/crossed discard point or vaccine vials without VVM or disfigured VVM
- No label/partially torn label and/or writing on label not legible
- Any vial thought to be exposed to non-sterile procedure for withdrawal
- Open vials that have been under water or vials removed from a vaccine carrier that has water
- If vaccine vial is frozen or contains floccules or any foreign body
- If there is breakage in the continuity of the vials (crack/ leaks)
- If there is any reported AEFI following use of any of the vaccine vial, do not use it, and retain it safely and inform Medical Officer and/or Supervisor

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National Resource Centres for Cold Chain & Vaccine Management

- **National Cold Chain & Vaccine Management Resource Centre** (NCCVMRC) located at NIHFW, New Delhi
- **National Cold Chain Resource Centre** (NCCRC) located at State Health Transport Organization (SHTO), Pune
- Plan, implement, supervise, monitor, innovate, generate evidence through research, assessment, studies and provide platform for capacity building on Vaccine & Cold Chain System across the country

Thanks

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