Barriers and facilitators associated with tetanus diphtheria vaccine uptake among pregnant women in sirsi village: A facility based mixed method study

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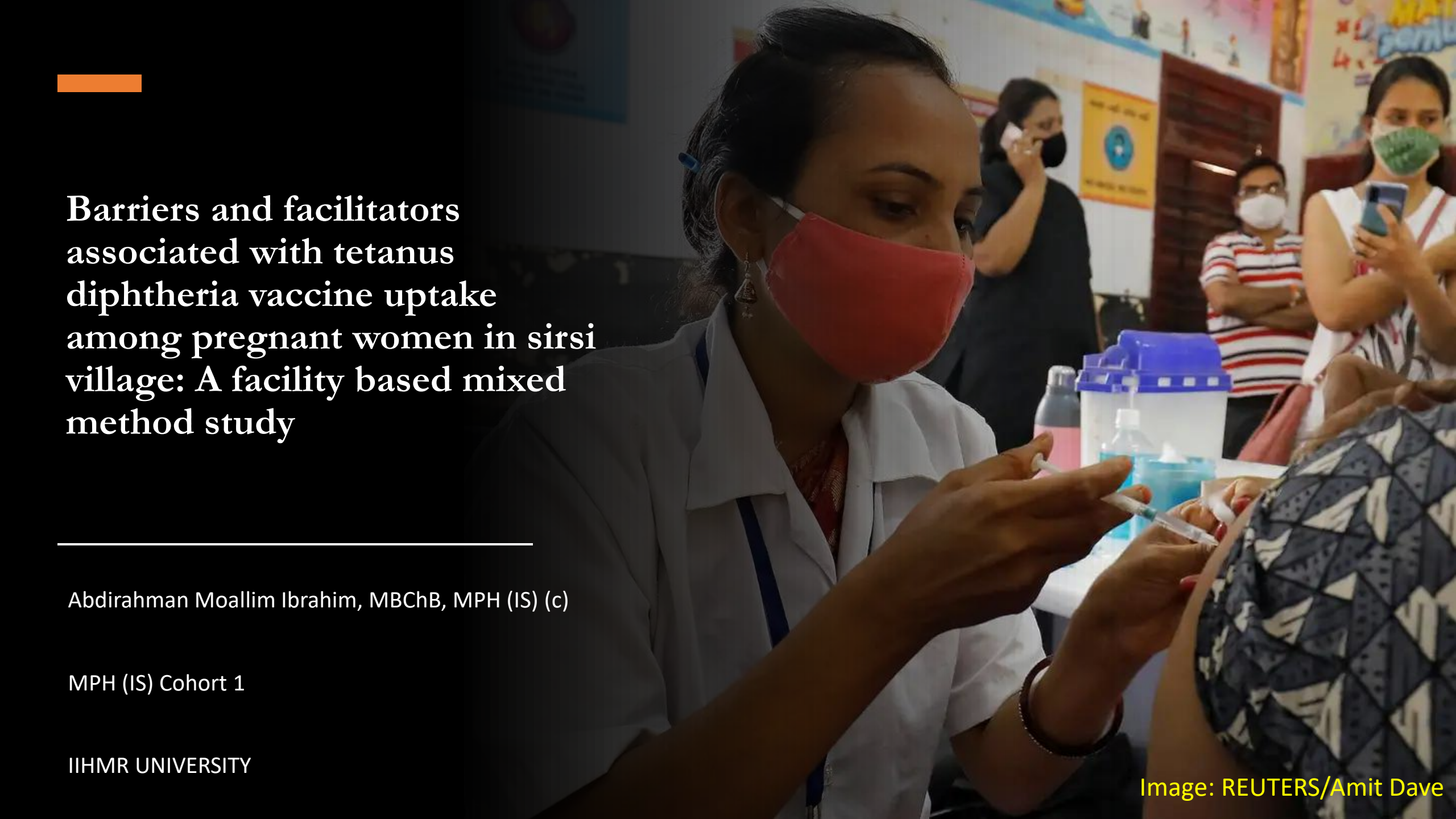

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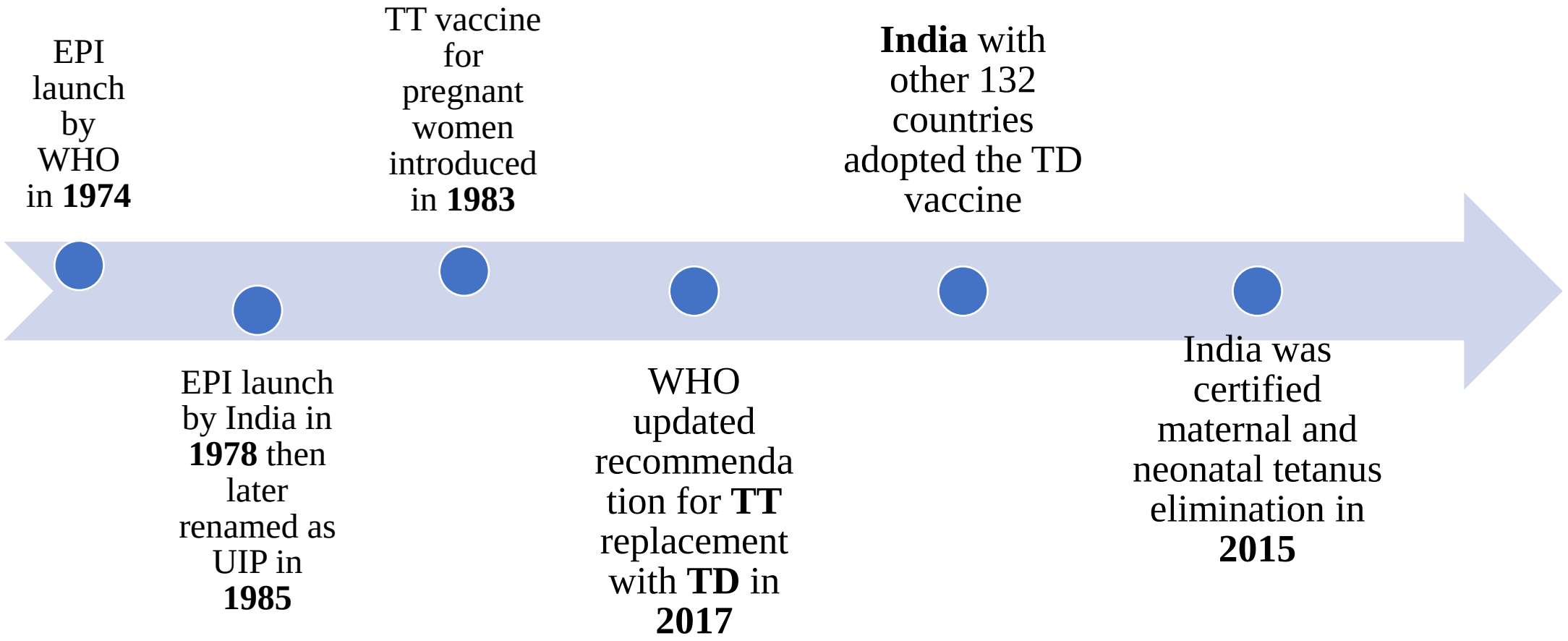
Introduction



1) Lahariya C. A brief history of vaccines & vaccination in India. Indian J Med Res. 2014 Apr;139(4):491–511.
2) Td_vaccine_operational_guidelines.pdf.
3) https://apps.who.int/iris/bitstream/handle/10665/364534/SEA-IMMUN-138-eng.pdf?sequence=1

Cont…

Existing barriers from the literature:

- **Unequal access to healthcare services**
- **Inadequate provider information**
- **Logistical issues related to vaccine transportation, supply and demand**
- **Sociocultural and economic barriers**

The study is aimed:

To explore the barriers and enablers that hinder or facilitate tetanus diphtheria vaccine uptake among pregnant women and identify at sirsi village, Jaipur, India.

- **At community and system level**
- **Identify and address practical solutions to overcome with the barriers**
- **Provide supportive actions required to sustain the existing enablers.**

Barik D, Thorat A. Issues of Unequal Access to Public Health in India. Front Public Health. 2015 Oct 27;3:245.

Grant M, Wilford A, Haskins L, Phakathi S, Mntambo N, Horwood CM. Trust of community health workers influences the acceptance of community-based maternal and child health services. Afr J Prim Health Care Fam Med. 2017 May 29;9(1):1281.

Wilson RJ, Paterson P, Jarrett C, Larson HJ. Understanding factors influencing vaccination acceptance during pregnancy globally: A literature review. Vaccine. 2015 Nov 25;33(47):6420–9.

Study Area

A Facility based study conducted in SIRSI Community Health Center

Mixed methods design

- **Quantitative (Observation checklists)**
- **Qualitative design (Semi-structured interviews)**

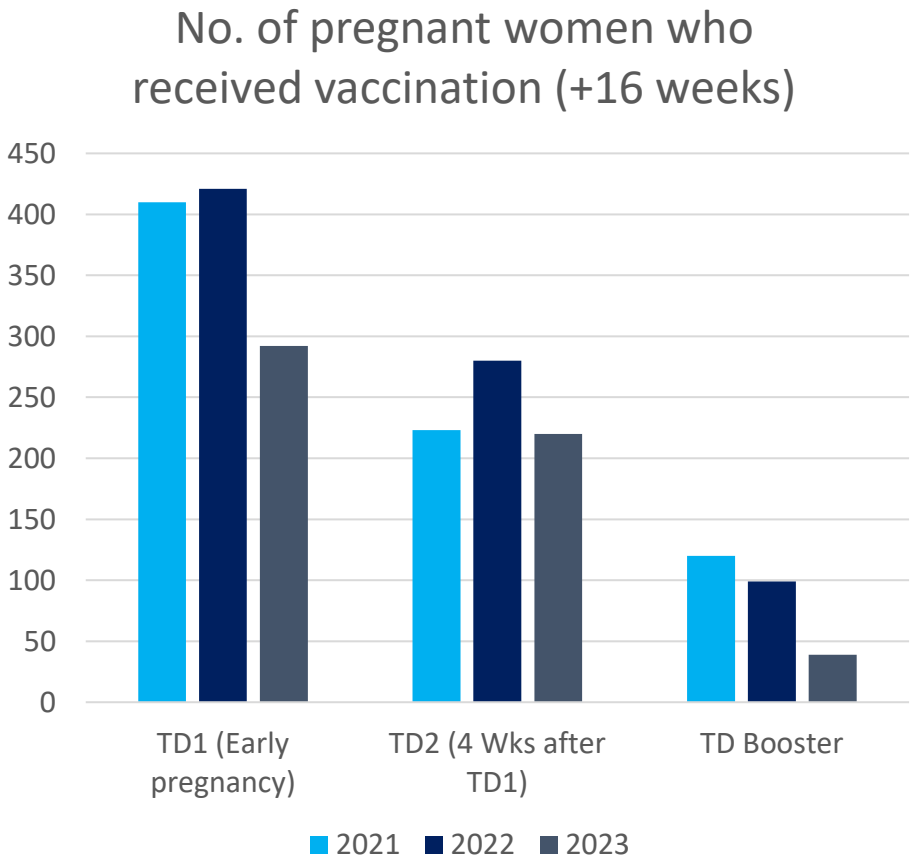
Participants in the study

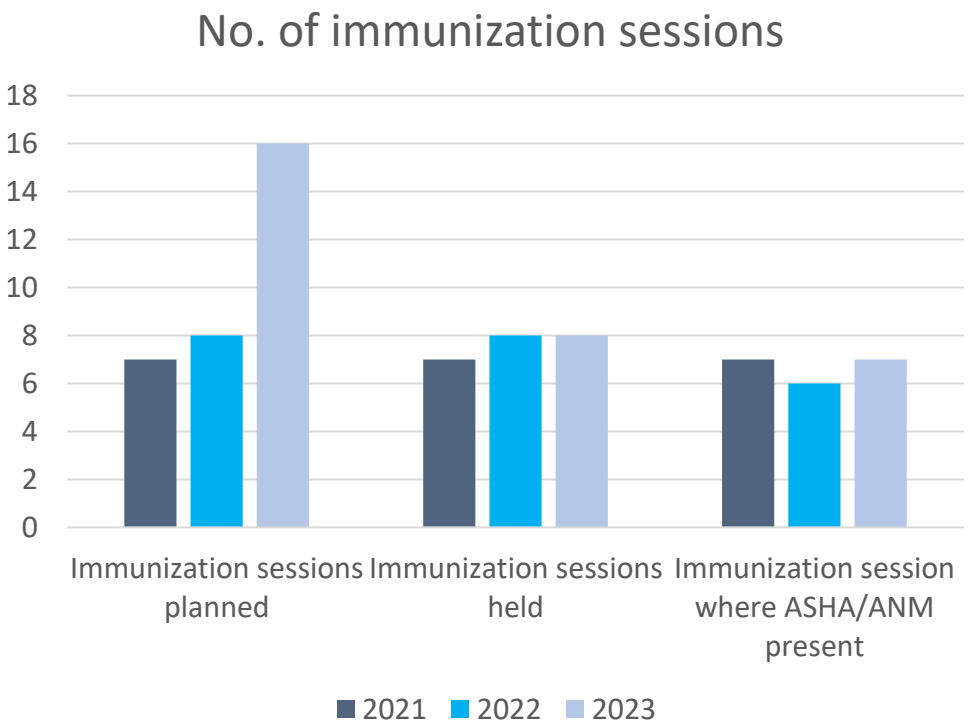
- **Pregnant women (3)**
- **ANM person (1)**
- **Chief Medical Officer (1)**

SIRSI CHC coverage and services

- 14 Staff including 2 ANM & 1 Medical officer
- Previously 21000 pops, but now 50000 to 1 Lakh
- OPD service, Immunization, Maternal services, and Minor surgery services, MCN Day, VHN Day.
- From 8PM to 2PM (6 hours a day)
- BCG, OPV, Hep B, PENTA, ROTA, IPV, MR, DPT, TD, COVAXIN

RESULTS


No. of pregnant women who received vaccination (+16 weeks)
450
400
350
300
250
200
150
100
50
0
TD1 (Early pregnancy)
TD2 (4 Wks after TD1)
TD Booster
2021
2022
2023


No. of immunization sessions
18
16
14
12
10
8
6
4
2
0
Immunization sessions planned
Immunization sessions held
Immunization session where ASHA/ANM present
2021
2022
2023

Cont…

Program management	Status
Contents of RI Micro plan (for dependent sub-centers) available	
a) Map of catchment area (Indicating SCs and distances from vaccine storage points)	Yes
b) Estimation of beneficiaries (village/area wise) for current year	Yes
c) Estimation of logistics _ Vaccine, syringes, immunization cards etc.	Yes
d) ANM Roster/Immunization Calendar	Yes
e) Day wise plan for supervisor visits	Yes
ANM Roster/Immunization calendar displayed at facility	Yes
Coverage Monitoring chart/Drop out chart (TD1, TD2)	Yes
Supervisory visits by District Level Gov. Health Officials in the last calendar month	Yes

Cont…

Cold chain	Status
ILR and Deep Freezers	
a) Placed on wooden blocks and at least 10 cm away from walls and surrounding equipment	Yes
a) Dedicated voltage stabilizer for each equipment	Yes
a) Functional thermometer inside every ILR and DF	Yes
a) No frost or frost less than 5mm inside walls of every ILR	Yes
Temperature and Logbooks	
a) Twice daily monitoring of temperature in respective logbooks	Yes
a) Periodic checks of logbooks by facility in charge (signature)	Yes
ILRs	
a) Cabinet temperature between +2 - +8c	Yes
a) All vaccine vials stored correctly inside cartons (Expiry date, batch)	Yes
a) No T-series vaccine kept in the bottom of ILR	Yes

DF		
a)	Cabinet temperature between -15c – 25c	Yes
a)	Correct placement of ice packs inside the DF (in cross manner, while freezing)	Yes
a)	No RI vaccines stored inside DF (including reconstituted vaccines)	Yes
SUPLLY AND STOCKS		
a)	Available sufficient TD vaccine in the stock with no supply issues	Yes
a)	All sessions in the last month issued at least one vial each of the vaccine due to supply issues	No
AEFI & Reported VPDs		
a)	Any AEFI reported in the last 3 calendar months	No
a)	Any VPD in the last 3 calendar months	No

Barriers and enablers

Service user identified barriers

- *Unclear understanding about the benefits of tetanus diphtheria vaccine*
- *Pain from the site of the injection*
- *Inadequate service provider (ASHA/ANM) recommendation*

Service user identified enablers

- *Strong trust and good faith with the ASHA/ANM) and the center*
- *Greater acceptability in attending the center and taking the vaccine*
- *Equal access of the services in the facility including the vaccine*

Health system identified barriers

- *Limited health workforce and heavy workload from high demand setting*
- *Difficulties in time, order, access and transportation of vaccine supplies from the warehouse to the center stock and from the center to the sub center*
- *Poor communication and limited coordination between anganwadi centers and the center*

Health system identified enablers

- *Strictly centralized vaccine tracking and monitoring system*
- *Political will from national and state level on life course maternal immunization*
- *Effective HMIS system and data record*

Service provider identified barriers

- *Financial concerns: Inadequate payment and less incentives from (ASHA/ANM)*
- *Not enough time for patient education*
- *Limited training and capacity building*
- *Inadequate information regarding immunization policies*

Service provider identified enablers

- *Effective reminder systems*
- *Incentives for the health centers with good coverage*
- *Clear vaccine guidelines particularly for the pregnant women*

Major barriers with suggested solutions

Problems	Suggestive Actions	Feasibility	Priority
Inadequate provider recommendation	• Strengthen patient feedback mechanisms • Establish a community led provider health information mechanism	SWIFT	
Limited health workforce and heavy workload in high demand setting	• Recruit volunteers to assist the ANM in high demand settings • Limit the number of daily admissions in the CHC, and improve the quality of services in the sub centers	CHALLENGING	
Difficulties in time, order, access and transportation of vaccine supplies from the warehouse to the center stock and from the center to the sub center	• Rigorous vaccine inventory and transportation management • Enhance coordination between the center and other sub centers for on time delivery.	CHALLENGING SWIFT	
Financial concerns including minimal incentivization and less payment particularly for ANM/ASHA	• Update and upgrade existing incentive mechanisms on performance basis • Motivate healthcare staff by introducing rewards and recognition practices for their achievements	CHALLENGING	
Limited training and capacity building	• Reinstate on the job, periodic trainings and capacity building for the healthcare providers • Establish intra CHC learning model at district levels • Develop and upgrade web/mobile based application for training of healthcare providers in health centers	SWIFT	

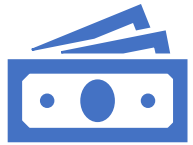
Supporting actions required to sustain the best practices

Strong trust and good faith with the ASHA/ANM and the center	• Strengthen ASHA/ANM technical skills and competencies • Encourage support and supervision by ASHA/ANM to the households and communities • Establish culture of community ownership in the center
Equal access and free of charge services in the facility to the communities	• Ensure all individuals in the community have the same equal chance to access better health services • Focus on the vulnerable and underserved communities
Strictly cold chain monitoring system	• Upgrade the cold chain with the latest technologies • Ensure continuous electricity services without power outage
Political will from national and state level on life course maternal immunization	• Strengthen political commitment at state and district level to sustain universal immunization • Use political and celebrity figures voices to reach the unreachable
Effective HMIS & RCH portal system and data record	• Ensure availability and completeness of data • Fasten transformation from paper based to digitalization of data in the facility • Improve data quality, leadership and governance

Key take away messages

Improve access to provider information

Address issues related with vaccine logistics and transportation mechanisms



Address issues related with financial concerns particularly from ASHA workers

On the job training and capacity building

Field visit photos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केन्द्र सिरसी
स्वागत है।


स्तनपान
प्रसव-पश्चात देखभाल


शहरी सामुदायिक
स्वास्थ्य केन्द्र सिर
में आपका स्वागत

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REFFERENCES

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THANKS FOR THE ATTENTION