



ASSESSING eVIN APPLICATION USE AND STUDYING VACCINE WASTAGES IN HEALTH FACILITIES

NATIONAL HEALTH MISSION

The two Sub-Missions that comprise the National Health Mission (NHM) are the National Urban Health Mission (NUHM) and the National Rural Health Mission (NRHM). diseases that are communicable and non-communicable, as well as reproductive, maternal, neonatal, child, and adolescent health (RMNCH+A). The dates of the National Urban Health Mission (NUHM) on May 1, 2013, and the National Rural Health Mission (NRHM) on April 12, 2005.

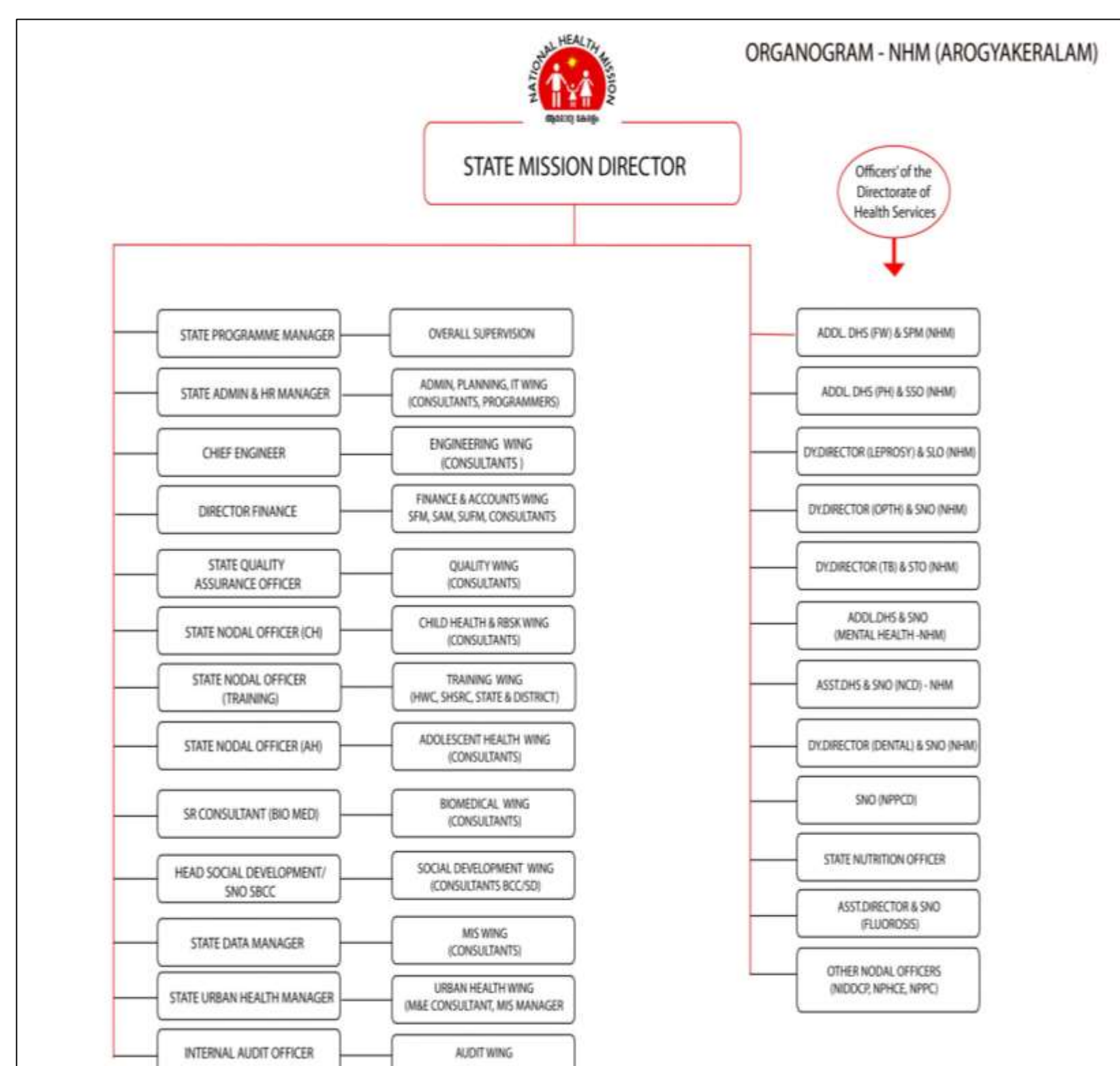
VISION

Ensure that everyone has access to fair, inexpensive, high-quality healthcare services that are accountable and sensitive to the needs of the populace, particularly the weak and disadvantaged.

MISSION

With a focus on marginalized communities, a reduction in newborn and maternal mortality rate, the promotion of illness prevention and management, the building of healthcare systems, and the prioritization of vulnerable groups, NHM's mission is to provide everyone with inexpensive, high-quality healthcare services.

ORGANISATION STRUCTURE



ROUTINE IMMUNISATION

- The Expanded Program on Immunization was launched in 1978. Since its establishment in 2005, the National Rural Health Mission has placed a strong emphasis on the universal immunization program.
 - One of the biggest public health initiatives, the Universal Immunization Programme (UIP) aims to immunize almost 2.67 crore babies and 2.9 crore pregnant women each year.
 - Nationwide campaign against nine illnesses: severe childhood tuberculosis, hepatitis B, meningitis, pneumonia brought on by hemophilus influenza type B, pertussis, polio, measles, rubella, and severe form of tuberculosis in children
- eVIN rollout:**
- The Electronic Vaccine Intelligence Network (eVIN) system, which has been implemented by the Indian government, digitizes the entire process of managing vaccine stocks, logistics, and temperature monitoring at every stage of vaccine storage..

RESEARCH QUESTION

What are the factors associated with wastage of vaccines at different CCPs?

OBJECTIVES

- To estimate vaccine wastage at CCPs
- To study eVIN performance in CCPs, its role in stock management .

METHODOLOGY

STUDY DESIGN:- The project report employs **cross sectional** study design conducted to evaluate and assess the eVIN application and vaccine wastage data, consisting both **qualitative** and **quantitative data**.

SAMPLE SIZE:- Study was carried out in 2 districts of Jaipur (Jaipur 1 and 2) at the cold chain points (CCPs). Qualitative and quantitative data regarding eVIN (n=20) were collected physically from vaccine stock and distribution registers and from eVIN app. Moreover, vaccine wastage data (n=14) was collected from wastage register.

DATA COLLECTION :-

Set of questionnaire – A structured questionnaire was prepared to collect the relevant data from the CCHs regarding session sites, vaccine stock and its wastage rates.

Face-to-face interview - Face to face collection of data by asking structured questions to all the ANMs/NO deployed at the CCPs.

Study duration: Primary data was collected from CCPs between 16.05.2024 to 19.06.2024, follow up was done in case CCH was absent.

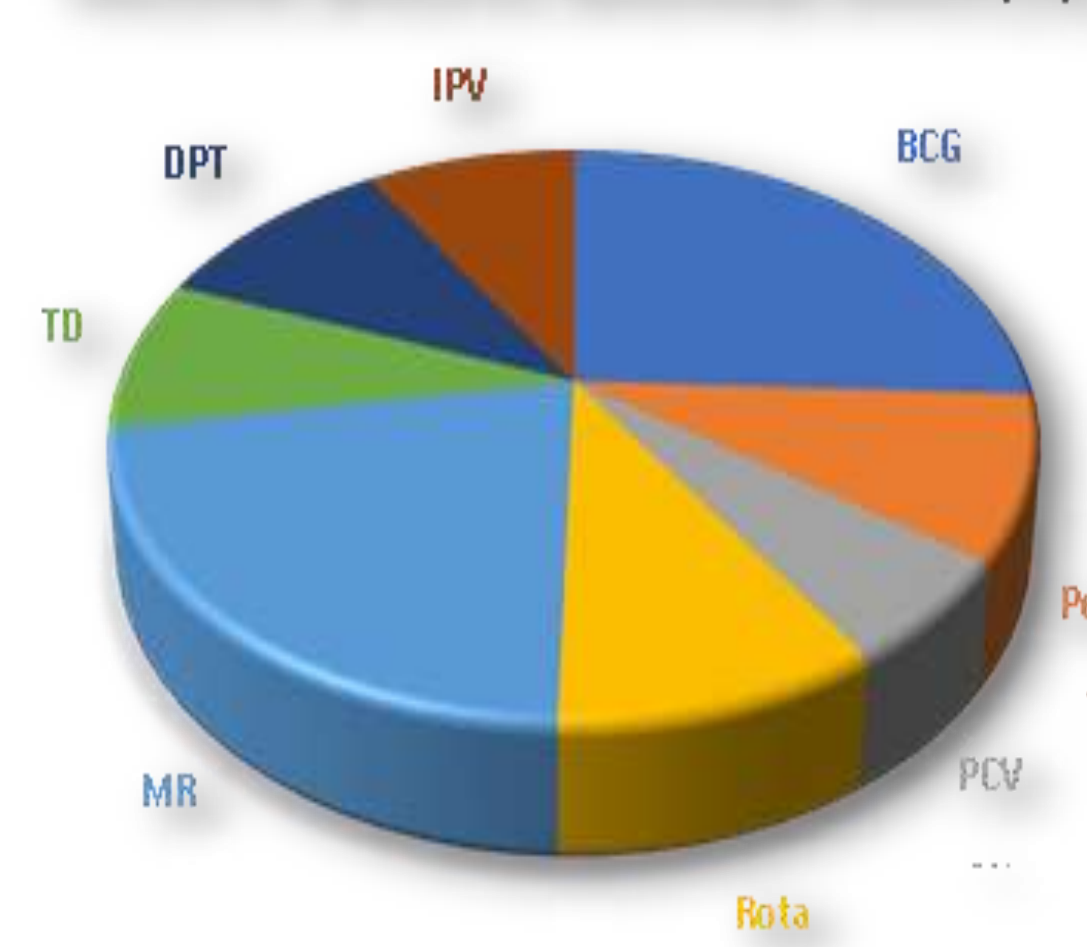
ANALYSIS

Vaccine wastage rate = (No. of doses wasted/No. of doses issued)×100

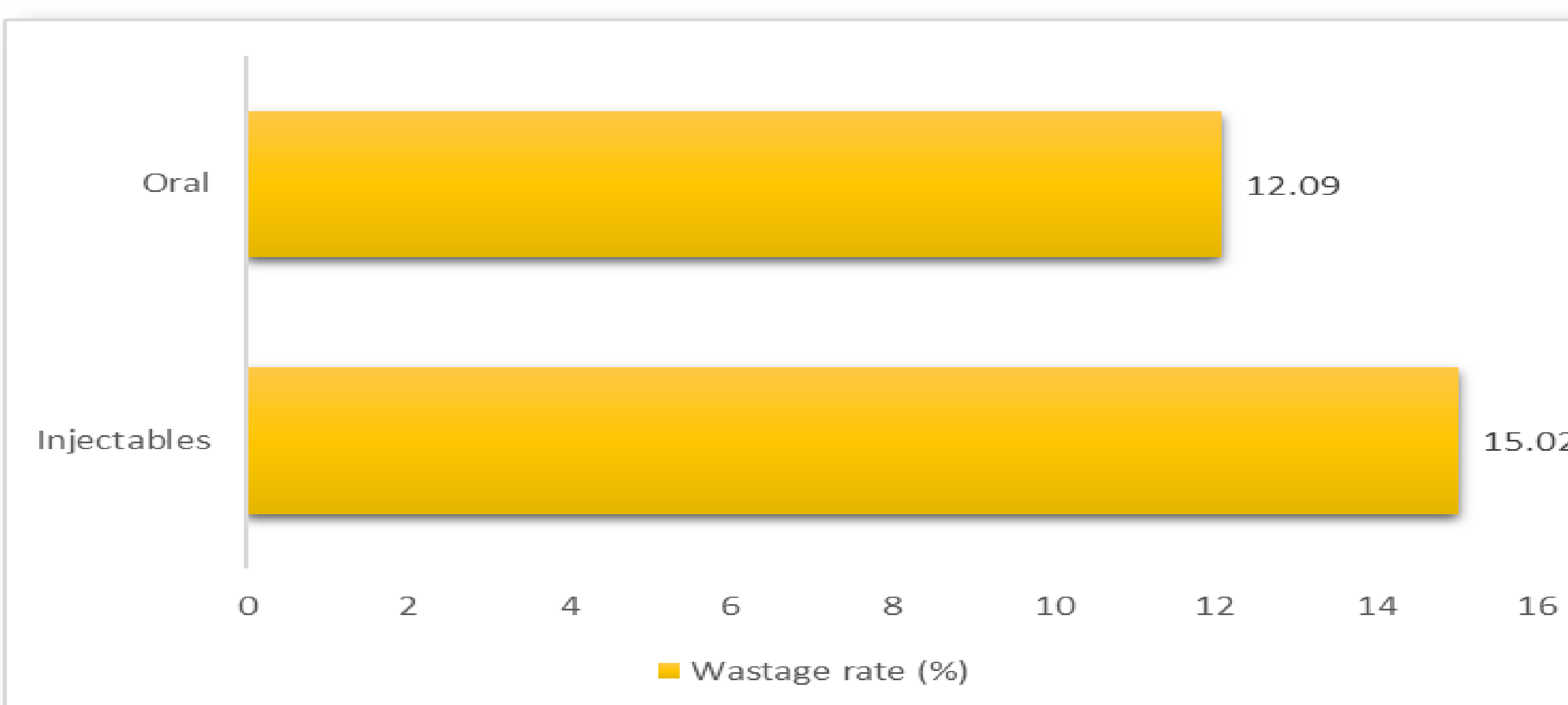
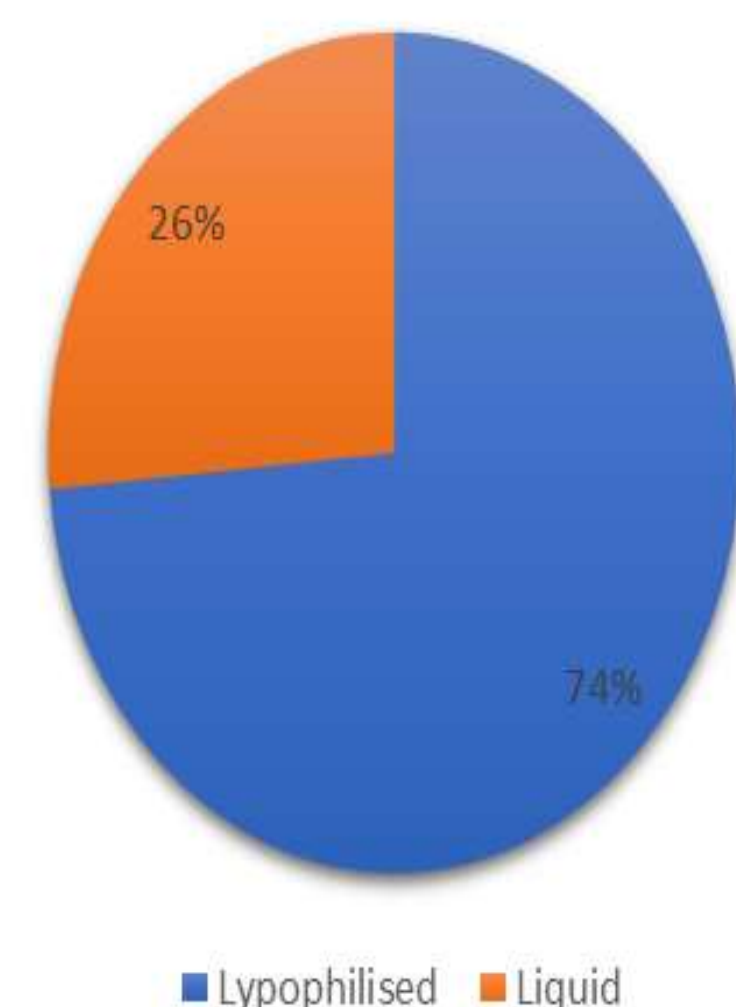
Vaccine wastage factor = {100/(100-vaccine wastage rate)}

FINDINGS

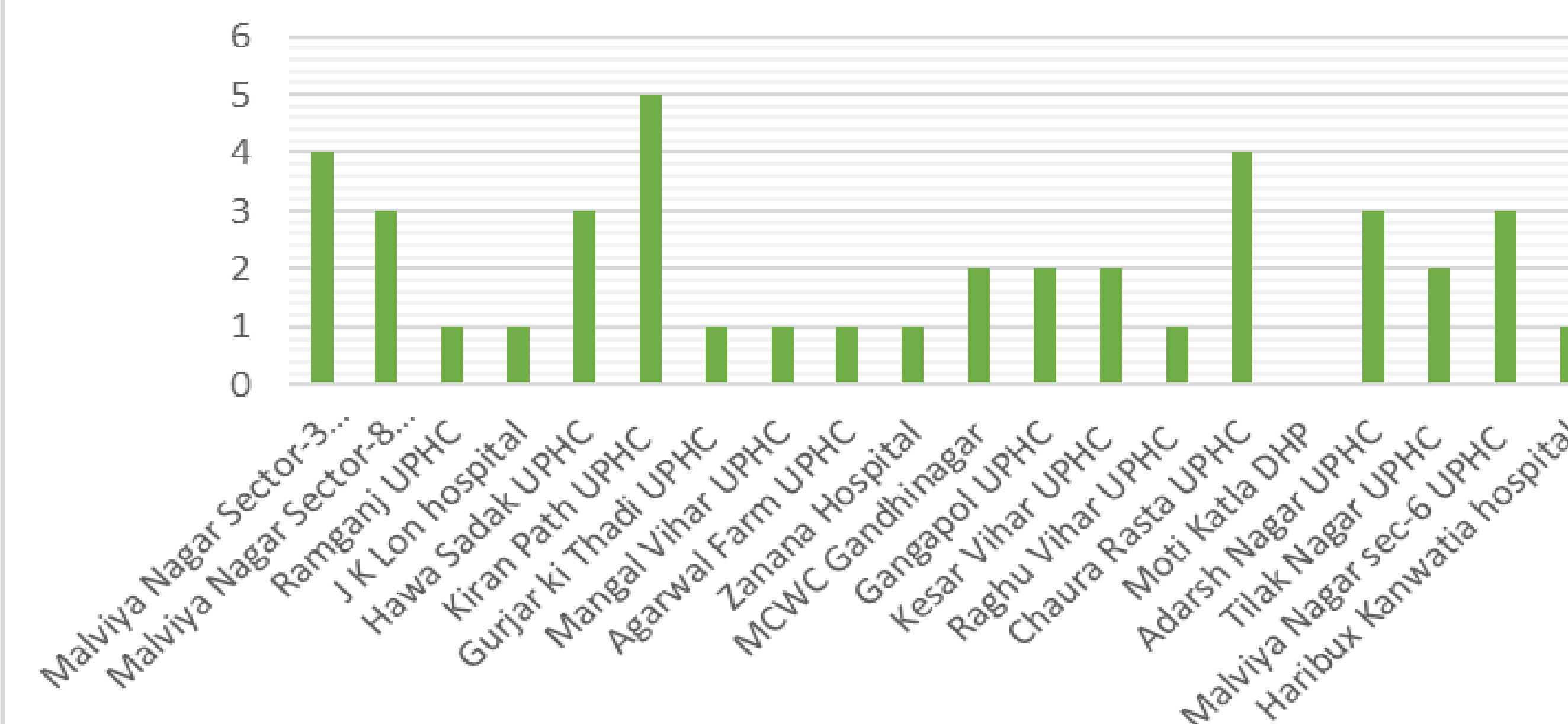
VACCINE SPECIFIC WASTAGE RATES (%)



Vaccines types and its wastage rates(%)

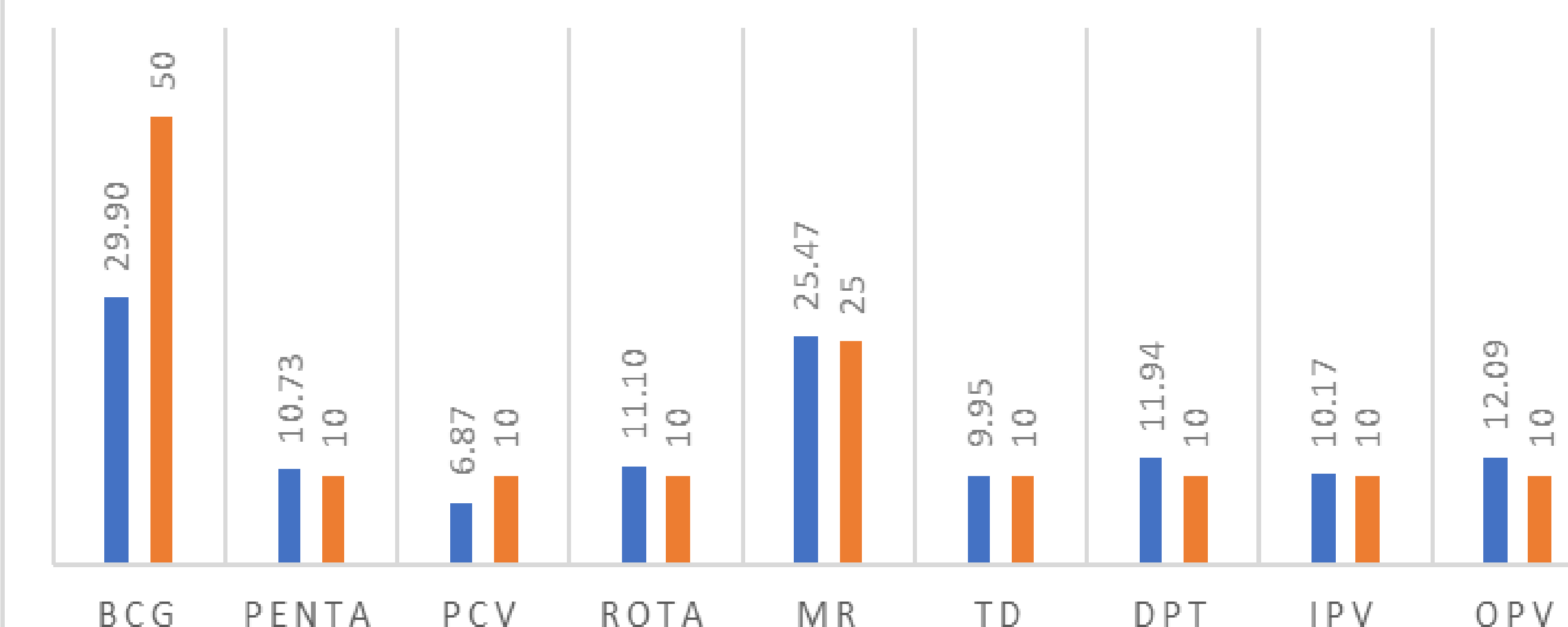


Replenishment time (days)



ACTUAL VS PERMISSIBLE WASTAGE RATES

Actual wastage rate (%) Permissible wastage rate (%)



FIELD VISIT



SWOT ANALYSIS

- STRENGTHS**
 - Technology adoption.
 - Skilled workforce.
 - Government initiatives to reach the grassroots.
- WEAKNESSES**
 - Infrastructure challenges
 - Vaccine hesitancy
 - Wastage at session sites
- THREATS**
 - Pandemics/high mortality pathogens.
 - Environmental factors.
 - Political shift affecting national programs.
- OPPORTUNITIES**
 - PPP
 - Education and empowerment
 - Technological reforms

CHALLENGES FACED DURING STUDY

- Language barrier since most workers lacked knowledge of English language.
- Dearth of time on their part led to reduced interaction.
- Visiting facilities was challenging since public transport was the only mode of transport.
- Absence of CCHs due to their other commitments.

LEARNING FROM INTERNSHIP

- Grasping knowledge from accomplished government employees spearheading the largest public health program in the largest state of India.
- A top down approach from DVS to CCPs enabled me to understand the supply chain of vaccines to grassroots level.
- To collect primary data and conclude findings based upon analysis.
- Overall know how of various departments under NHM.

USEFULNESS OF INTERNSHIP

- Enabling pragmatic understanding of the governmental healthcare system.
- Witness noteworthy efforts to relay message to the last CCPs from the headquarters shows a robust communication network.
- Time management and working as per schedule to attain the goal balancing theoretical and practical exposure.
- Capacity building of the enormous human resources required for efficient working of the infrastructure

SUGGESTIONS

- It is advised to have a large enough pool of CCHs in the system because the majority of CCHs will be retiring in the next five to six years.
- To maintain vaccine wastage register with proper wastage reasons at every CCP to have a transparent understanding of wastage and finding out ways to reduce it.
- Understanding the trends of patient behaviour and forecasting vaccine usage especially for vaccines given at birth and vaccines not following open vial policy to reduce the wastage.
- Recruiting staffs with fixed pay, since they refuse to work with variable pay like ASHAs thereby leading to increased work load on existing human resources.
- To update the distribution and stock registers with the missing parts for better tracking.
- The majority of stakeholders in-depth interviews revealed that retrieving antigens from vaccination stockpiles several times a month is a significant difficulty. When distributing vaccinations to CCPs with a scheduled route plan, DVS advises using a push system rather than a pull system..
- Across eVIN states, dual record-keeping is a time-consuming procedure. In eVIN states, CCHs update the eVIN system in addition to keeping physical records. Therefore, the process will be more effective and transparent if all physical aspects of vaccine management are integrated into eVIN.

PRESENTED BY : ANURAG CHAKRABORTY
ROLL NO : 1683 (MBA HM28)

MENTORS:

- DR RAGHURAJ SINGH(PD), ROUTINE IMMUNISATION, (NHM RAJASTHAN)
- DR.DEEPTI SHARMA, ASSOCIATE PROFESSOR, IIHMR UNIVERSITY, JAIPUR