SUMMER INTERNSHIP PROGRAM

at

NATIONAL HEALTH MISSION, RAJASTHAN

From 06.05.2024 TO 05.07.2024

A REPORT BY

ANURAG CHAKRABORTY

MBA HOSPITAL AND HEALTH MANAGEMENT

2023-25

under the Mentorship of

Dr. DEEPTI SHARMA, ASSOCIATE PROFESSOR, IIHMR UNIVERSITY, JAIPUR

Government of Rajasthan
National Health Mission, Rajasthan
Department of Medical, Health & FW, Swasthya Bhawan, Jaipur
Tel.No.0141-2229108, Email ID: spm_raj.nrhm@yahoo.com

No. F 2 (153) NHM/SPM/2024/ 840 Dated: 5/7/24

CERTIFICATE

This is to certify that **Mr Anurag Chakraborty**, student of MBA, Indian Institute of Health Management Research (IIHMR University, Jaipur) has successfully completed his Summer Training at National Health Mission, Rajasthan from 06/05/2024 to 05/07/2024. He has worked on the project-

A STUDY TO ASSESS eVIN APPLICATION USEFULNESS AND STUDYING VACCINE WASTAGES IN HEALTH FACILITIES

His performance was found satisfactory. We extend him good wishes for a bright and successful career ahead.

(Dr Jitendra Kumar Soni)
Mission Director, NHM
Special Secretary
Medical Health & Family Welfare

Completion Certification from the Organization

CERTIFICATE

This is to certify that **Mr. Anurag Chakraborty** of **HM-28** Batch of Institute of Health Management Research, **IIHMR University** has worked with our organization for his summer internship from 6th May'2024 to 5th July'24 . The overall performance shown by him during the period was excellent/good/average. This certificate is being issued to meet the requirements of the IIHMR University.

Date: 5th July'2024.

(Signature of organization Mentor)

Name: डॉ. देवेन्द्र सौंधी
राज्य नोडल अधिकारी (टीकाकरण)
एन.एच.एम.

Designation:

Seal/Stamp of the Organization

IIHMR UNIVERSITY

IIHMR University Faculty Mentor Approval

This is to certify that **Mr. Anurag Chakraborty** of the academic year 2023-25 of **Institute of Health Management Research** has prepared a poster concerning his summer internship held from 6th May – 5th July 2024.

He has carried out work as per the guidelines. His poster is approved for presentation.

Date: 19/07/2024

Deepti

Dr. Deepti Sharma
Associate Professor

1, Prabhu Dayal Marg, Near Sanganer Airport, Jaipur- 302029, Rajasthan, India.
Ph.: 0141- 3924700, 2791431- 32, Fax: 0141 3924738, E-mail: iihmr@iihmr.edu.in, Web.: www.iihmr.edu.in

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.

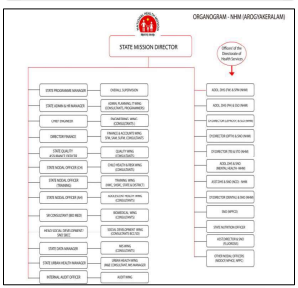
VISION

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 **qualititative** and **quantitative data**.

SAMPLE SIZE:- Study was carried out in 2 districts of Jaipur (Jaipur 1 and 2) at the cold chain points (CCPs). Qualititative 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 **:–**

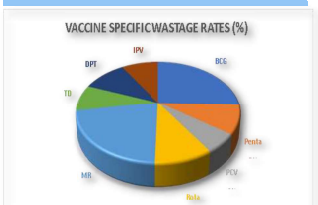
Set of questionnaire – A structured questionnaire was prepared to collect the relevant data from the CCHs regarding session sites, vaccine stock and its wastage rates.

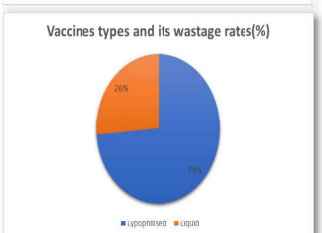
Face-to-face interview - Face to face collection of data by asking structured questions to all the ANMs/NO deployed at the CCPs.
Study duration: Primary data was collected from CCPs between 16.05.2024 to 19.06.2024, follow up was done in case CCH was absent.

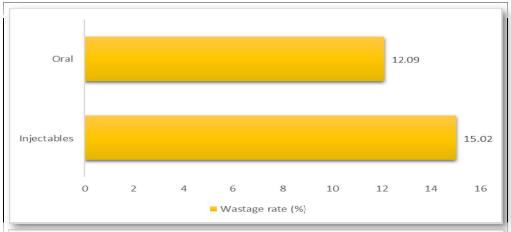
ANALYSIS

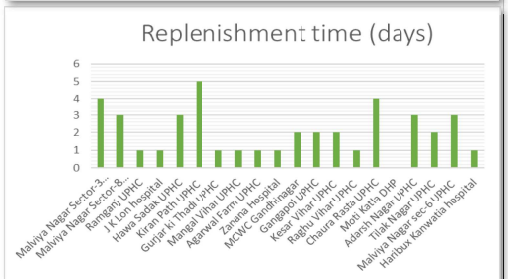
Vaccine wastage rate = (No. of doses wasted/No. of doses issued)×100
Vaccine wastage factor = {100/(100-vaccine wastage rate)}

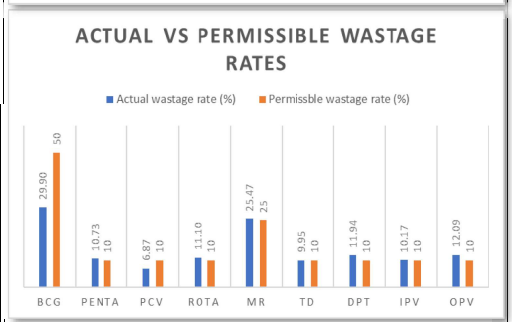
FINDINGS



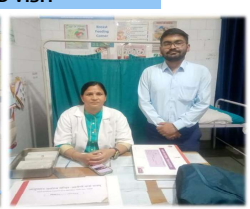








FIELD VISIT



SWOT ANALYSIS

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 grassroot 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**

WEEK-1

Name of the Organization: NHM RAJASTHAN

Department: ROUTINE IMMUNISATION
Name of the Student: ANURAG CHAKRABORTY
Roll no:1683 Stream: MBA HOSPITAL AND HEALTH MANAGEMNET
Week no: 1 From: 06/05/24 to 09/05/24

Activity Done	ORIENTATION OF DIFFERENT DEPARTMENTS OF NHM UNDER NATIONAL HEALTH PROGRAMS 06/5/24- Family welfare, ISC/IAP, MMU, AAM, PCPNDT 07/5/24- QA, CH. 08/05/24- MH, MNDY, NPNCD, NVBDCP 09/5/24- IDSP
Linking theory (Classroom learning) with practice at your organisation	The briefings from the several departments were more broadly applicable to the theoretical lessons we were studying in class. The understanding of both the technical and non-technical facets of the program that is being covered in class may be linked to the operation of the RI department.
Gaps identified on the working area.	It's too early; the department was only assigned this week, and I'm now learning about all the different facets of the department's operations, with a special emphasis on management.
Suggestions for improvement	Awareness through BCC and IEC, explaining their benefits to individual and community level.
Plan for the next week	Orientation of the remaining departments, post which departments will be allocated for furthering of project work under respective PDs/SNOs.

WEEK-2

Activity Done	ORIENTATION OF DIFFERENT DEPARTMENTS OF NHM UNDER NATIONAL HEALTH PROGRAMS 13/5/24- RBSK, RKSK, NIDDCP 14/5/24- NLEP, NUHM, NTEP, NMHP, NOHP, NRCP 15/5/24- NPHCE, NPPCD. 16/5/24- Discussion regarding immunisation project with project director Dr. Raghuraj Singh, SNO Dr. Sondhi 17/5/24- Cold chain department orientation by Dr. Manisha.
Linking theory (Classroom learning) with practice at your organisation	Making connections between the organizational working knowledge helped me comprehend how the department operated. Our theoretical understanding of organizational behavior aided us in interacting with numerous individuals in a variety of posts and obtaining unique insights.
Gaps identified on the working area.	Understanding the organizational structure takes some time due to its complexity. Additionally, there is a distinction between the department of routine immunization (RI) and cold chain management, which is a little perplexing given that both are essential.
Suggestions for improvement	I am still getting used to the departmental workings within the company, so I can't provide any recommendations just yet.
Plan for the next week	Studying materials related to immunisation, exploring themes to understand the overall working of the department and forming a framework for the project post approval by industry mentor.

WEEK-3

Activity Done	20/5/24- Discussion related to project and study area and design with cold chain officer. 21/5/24- Discussion with Dr.Nalini and Dr.Manisha regarding cold chain management survey at the cold chain points. 22/5/24- Discussion with Dr. Raghuraj Singh sir regarding the application of eVIN software in logistic management of vaccine supply chain. 23/5/24- Visited SVS (State vaccine store) and RVS (Regional vaccine store) near sethi colony and interacted with SVSM Mr. Surendra Singh and Mr. Neeraj Varshney to understand the working of the vaccine delivery system. 24/5/24- Visited DVS (District vaccine store) near Tonk phatak and interacted with DVS of Jaipur-1 and 2 DVSM gaining their insights regarding vaccine logistical management and interacting with an on site ANM.
Linking theory (Classroom learning) with practice at your organisation	Connecting theory (learning in the classroom) to practice in your companyfound a number of national initiatives that were either directly or indirectly tied to immunization and that we might connect to the lessons being taught in schools. I had a good understanding of the public health institution hierarchy and the health care delivery system, and I could tie both to what I had learned in the classroom.

Gaps identified on the working area.	Understanding the systematic order of the government is still difficult. There is variation in how the health facilities operate because of the massive amount of data and the size of their workforce. The directional instructions needed to get to a specific medical facility is lacking. incapacity to verify the qualitative responses provided by the health facilities' CCHs (Cold Chain Handlers).
Suggestions for improvement	It would be beneficial if official government documents were available in both Hindi and English, and if there were prominent signs in both languages. Only by closely examining and analyzing the original data—which I will be gathering this next week
Plan for the next week	Develop a questionnaire regarding the stock management, temperature management and implementation of eVIN, getting it approved by PD sir and conducting field visits of CCPs under DVS Jaipur-1 and 2

WEEK-4

Activity Done	27/5/24- sick leave 28/5/24- Questionnaire developed regarding eVIN app utlisation in the CHCs/PHCs were approved by PD sir. 29/5/24- PHC Pratap Nagar sector 6 and sector 11 were visited to collect primary data regarding the project. 30/5/24-PHC Pratap nagar sector 6 revisited to take account of the vaccination day at site. Moreover,visited PHC Sardar Patel nagar and PHC Hawa Sadak. 31/5/24- Visited PHC Tilak Nagar and PHC Adarsh Nagar.
Linking theory (Classroom learning) with practice at your organisation	I knew a lot about how the public health institutions and the health care delivery system operated, and I could apply that knowledge to what I was learning in the classroom. Engaging with a wide range of individuals and effectively articulating our points when gathering primary data in the field may be connected to what we learn in the classroom. The operational mechanisms of the facilities may be connected to the notion of organizational behavior.

Gaps identified on the working area.	One of the biggest challenges encountered during the facility inspection was the vast amount of data and widespread networking among the staff members of the health facilities, as well as some misreading of instructions. A number of health facilities experienced staffing shortages, which seriously hampered the primary data collection procedure. It took a lot of time and work for us to arrange our own transportation during the field excursions, and the facilities weren't exactly located as marked on Google Maps. In addition to the aforementioned, I was unable to verify or authenticate the primary qualitative data provided by the ANMs; this may be a sign of my possible deficiency in technical expertise in this area.
Suggestions for improvement	It would be beneficial if official government documents were available in both Hindi and English, and if there were prominent signs in both languages.
Plan for the next week	Develop a questionnaire regarding the stock management, temperature management and implementation of eVIN, getting it approved by PD sir and conducting field visits of CCPs under DVS Jaipur-1 and 2.

WEEK-5

Activity Done	3/6/24- Visited UPHC Kiranpath, Gurjar ki Thadi, Mangal Vihar. 4/6/24- Visited UPHC Durgapura,Malviya Nagar sector 6, UPHC Malviya Nagar sector 3. 5/6/24- Visited UPHC Agarwal Farm, Mansarovar sector 8, SDH Sanganer. 6/6/24- Visited Zenana hospital, Satellite hospital, Bani park, Haribux Kawatia hospital. 7/6/24- Visited DHP Moti katla, UPHC Gangapol, UPHC Ramganj .

Linking theory (Classroom learning) with practice at your organisation	Engaging with a wide range of individuals and effectively articulating our issues when gathering primary data in the field may be connected to what we learn in the classroom. The operational mechanisms of the facilities may be connected to the theories of organizational behavior and effective communication. I knew a lot about how the public health institutions and the health care delivery system operated, and I could apply that knowledge to what I had learned in class from different lectures. Particularly, the beneficiary data in PCTS (Pregnancy, Child Tracking & Health Services Management System) and stock maintenance in eVIN (electronic Vaccine Intelligence Network) could be connected with certain theoretical aspects of digital health and the department's actual technological operations.
Gaps identified on the working area.	One of the biggest challenges encountered during the facility inspection was the vast amount of data and widespread networking among the staff members of the health facilities, as well as some misreading of instructions. A small percentage of the vaccinators (ANMs) refused to help us with our research. It took us a long time and a lot of work to arrange our own transportation during the visits, and the locations of the facilities weren't exactly marked on Google Maps. I had some trouble rapidly comprehending the qualitative and quantitative data presented at the facilities because there was no official technical training offered.
Suggestions for improvement	By coordinating the work in the current department, it would be beneficial if we also had the opportunity to collaborate in other departments. Both our knowledge and our range of job experience would increase as a result. on addition to orientation, it would be quite beneficial if we received some formal training on some of the department's administrative and technical facets.
Plan for the next week	Plan to visit few more UPHCs to collect primary data, compilinf the data and report to organisation mentor for further analysis and poster preparation.

WEEK-6

Activity Done	10/6/24- Consulted with PD sir regarding further course of action and collection of primary data and visited MCWC Gandhinagar to collect vaccine wastage data. 11/6/24- Visited JK Lone Hospital. 12/6/24- Visited UPHC ward 48, Kesar Vihar and UPHC Jagatpura. 13/6/24- Revisited UPHC Agarwal farms, Uphc Gurjar ki Thadi, UPHC Mangal Vihar, UPHC Kiran Path 14/6/24- Revisited UPHC Durgapura, Uphc Malviya nagar sec-6 and uphc Malviya nagar sec-3.
Linking theory (Classroom learning) with practice at your organisation	Connecting theory (learning in the classroom) to practice in your companyTheoretical features of digital health could be linked to the field's use of technology in stock management and beneficiary information management. The dispersed theoretical instruction in Microsoft Excel and other software from several courses proved beneficial in compiling and structuring the collected data. In terms of health management, the functioning and operation of the immunization department were even more apparent. This could add to the understanding of health policy, the health care delivery system, and some demography lessons in the classroom. We may be able to apply what we have learned in the classroom to our field observations and primary data collection by effectively communicating our concerns and engaging with a wide range of people.
Gaps identified on the working area.	The gaps found were similar to those found last week in terms of some CCHs' lack of support, the various CCPs' inconsistent performance, which was attributed to their large and complex systems, the difficulty in finding the facilities quickly, the absence of official training and appropriate guidance, and the short amount of time needed to comprehend the immunization department's micromanagement. The unwillingness of the individuals to take swifter action and deal with the facility's ground personnel problem.

Suggestions for improvement	The recommendations would be the same as they were last week. By coordinating the work in the current department, it would be beneficial if we also had the opportunity to collaborate in other departments. Both our knowledge and our range of job experience would increase as a result. It would be beneficial if official government documentation were available in both Hindi and English, and if the Directorate had prominent signs in both languages. Governmental or non-governmental organizations should inspect the medical facilities more frequently in order to significantly reduce flaws and enhance the quality of the services. Additional recommendations could be made following my examination and analysis of the seen and gathered data from the health
Plan for the next week	Plan to revisit few other UPHCs from where vaccine wastage data is yet to be collected, following which the data will be reported to PD sir. Data will be analysed followed by poster preparation and approval.

WEEK-7

Activity Done	17/6/24- government holiday. 18/6/24- Revisited Haribux Kawantia government hospital, Zenana hospital and satellite hospital, Bani park to collect vaccine wastage data. 19/6/24- Revisited Uphc Chaura rasta, Mahila Chikitsalay, Uphc Sirohadeori, Gangapol and Moti Katla and Ramganj to collect vaccine wastage data. 20/6/24- Reported data collected to PD sir for further data Analysis. 21/6/24- preparing data for further analysis, exploring fields by going through research papers.

Linking theory (Classroom learning) with practice at your organisation	Connecting theory (learning in the classroom) to practice in your companyWhen analyzing the data and understanding the results, some features of biostatistics theory were useful (particularly when creating charts and graphs). Theoretical features of digital health could be linked to the field's use of technology in stock management and beneficiary information management. The dispersed theoretical instruction in Microsoft Excel and other software from several courses proved beneficial in compiling and structuring the collected data. In terms of health management, the functioning and operation of the immunization department were even more apparent. This could add to the understanding of health policy, the health care delivery system, and some demography lessons in the classroom. This aided in the interpretation and analysis of the data.
Gaps identified on the working area.	Based on my experience working with the organization and on in-person visits, the following data collection gaps were found: some CCHs were not supportive; different CCPs functioned differently, which was attributed to their large and complex systems; it was difficult to locate the facilities quickly; there was a lack of official training and guidance; and there was not enough time to fully comprehend the micromanagement of the immunization department. The study's shortcomings include the presence of significant discrepancies throughout the CCPs with respect to the population that falls under their jurisdiction.

Suggestions for improvement	In addition to the aforementioned, I thought there ought to be better departmental communication. The department was provided with significant suggestions based on the study that was conducted. The CCPs' monitoring, maintenance, and record-keeping might be improved if supervisory visits increased in frequency. • Further training for staff members may also be necessary to enable them to administer the CCP effectively with the resources at their disposal. • There was a lot of confusion surrounding the AEFI record keeping, thus it is important to make sure that ANMs and nursing officers who administer vaccinations understand it clearly. • A relatively speedy grievance redressal process for managerial and associated concerns could be implemented for the CCP vaccinators.
Plan for the next week	Explore themes on which collected data can be structured and presented, create data models and further studying research papers for optimizing the data and its presentation.

WEEK-8

Activity Done	24 to 27/6/24- Data collected was uploaded in excel spreadsheet, it was subjected to data analysis and the results were reported to PD sir on whose recommendations further corrections were made. 28/6/24- Final report was prepared and was approved by PD (RI) and SPM NHM RAJASTHAN post which certificate for completion would be awarded.

Linking theory (Classroom learning) with practice at your organisation	The preceding theoretical knowledge makes it easier to grasp how different departments operate. The officials' briefing on the fundamentals of public health could be tied to what we study in class.
Gaps identified on the working area.	Understanding the systematic order of the government is still difficult. There is variation in how the health facilities operate because of the massive amount of data and the size of their workforce. The directional instructions needed to get to a specific medical facility is lacking. incapacity to verify the qualitative responses provided by the health facilities' CCHs (Cold Chain Handlers).
Suggestions for improvement	By coordinating the work in the current department, it would be beneficial if we also had the opportunity to collaborate in other departments. Both our knowledge and our range of job experience would increase as a result. on addition to orientation, it would be quite beneficial if we received some formal training on some of the department's administrative and technical facets.
Plan for the next week	Explore themes on which collected data can be structured and presented, create data models and further studying research papers for optimizing the data and its presentation.

COMPILED REPORT

Name of the Organisation: National Health Mission (NHM), Rajasthan

Department: Routine Immunization (RI)

Name of the Student: Anurag Chakraborty

Roll no: 1683 Stream: MBA (Hospital and Health Management)

1. Activity done :

- ORIENTATION OF DIFFERENT DEPARTMENTS OF NHM UNDER NATIONAL HEALTH PROGRAMS
- 06/5/24- Family welfare, ISC/IAP, MMU, AAM, PCPNDT
- 07/5/24- QA, CH.
- 08/05/24- MH, MNDY, NPNCD, NVBDCP
- 09/5/24- IDSP

- ORIENTATION OF DIFFERENT DEPARTMENTS OF NHM UNDER NATIONAL HEALTH PROGRAMS
- 13/5/24- RBSK, RKSK, NIDDCP
- 14/5/24- NLEP, NUHM, NTEP, NMHP, NOHP, NRCP
- 15/5/24- NPHCE, NPPCD.
- 16/5/24- Discussion regarding immunisation project with project director Dr. Raghuraj Singh, SNO Dr. Sondhi
- 17/5/24- Cold chain department orientation by Dr. Manisha
- 20/5/24- Discussion related to project and study area and design with cold chain officer.
- 21/5/24- Discussion with Dr.Nalini and Dr.Manisha regarding cold chain management survey at the cold chain points.
- 22/5/24- Discussion with Dr. Raghuraj Singh sir regarding the application of eVIN software in logistic management of vaccine supply chain.
- 23/5/24- Visited SVS (State vaccine store) and RVS (Regional vaccine store) near sethi colony and interacted with SVSM Mr. Surendra Singh and Mr. Neeraj Varshney to understand the working of the vaccine delivery system.
- 24/5/24- Visited DVS (District vaccine store) near Tonk phatak and interacted with DVS of Jaipur-1 and 2 DVSM gaining their insights regarding vaccine logistical management and interacting with an on site ANM.
- 27/5/24- sick leave
- 28/5/24- Questionnaire developed regarding eVIN app utlisation in the CHCs/PHCs were approved by PD sir.
- 29/5/24- PHC Pratap Nagar sector 6 and sector 11 were visited to collect primary data

regarding the project.

- 30/5/24-PHC Pratap nagar sector 6 revisited to take account of the vaccination day at site. Moreover, visited PHC Sardar Patel nagar and PHC Hawa Sadak.
- 31/5/24- Visited PHC Tilak Nagar and PHC Adarsh Nagar.
- 3/6/24- Visited UPHC Kiranpath, Gurjar ki Thadi, Mangal Vihar.
- 4/6/24- Visited UPHC Durgapura,Malviya Nagar sector 6, UPHC Malviya Nagar sector 3.
- 5/6/24- Visited UPHC Agarwal Farm, Mansarovar sector 8, SDH Sanganer.
- 6/6/24- Visited Zenana hospital, Satellite hospital, Bani park, Haribux Kawatia hospital.
- 7/6/24- Visited DHP Moti katla, UPHC Gangapol, UPHC Ramganj .
- 10/6/24- Consulted with PD sir regarding further course of action and collection of primary data and visited MCWC Gandhinagar to collect vaccine wastage data.
- 11/6/24- Visited JK Lone Hospital.
- 12/6/24- Visited UPHC ward 48, Kesar Vihar and UPHC Jagatpura.
- 13/6/24- Revisited UPHC Agarwal farms, Uphc Gurjar ki Thadi, UPHC Mangal Vihar, UPHC Kiran Path
- 14/6/24- Revisited UPHC Durgapura, Uphc Malviya nagar sec-6 and uphc Malviya nagar sec-3.
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- 28/6/24- Final report was prepared and was approved by PD (RI) and SPM NHM RAJASTHAN post which certificate for completion would be awarded.

OBJECTIVES

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

METHODOLOGY

A cross-sectional study was carried out in 2 districts of Jaipur, Rajasthan (Jaipur 1 and 2) atthe cold chain points. Primary data was collected between 16.05.2024 to 19.06.2024.

Qualititative and quantitative data regarding eVIN data regarding vaccines (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. All the vaccines included under the study were part of the National immunization schedule (NIS) of MoHFW,GoI. Qualititative data was collected from CCHs interviewed as per the structured questionnaire. These data were later analysed in MS Excel.

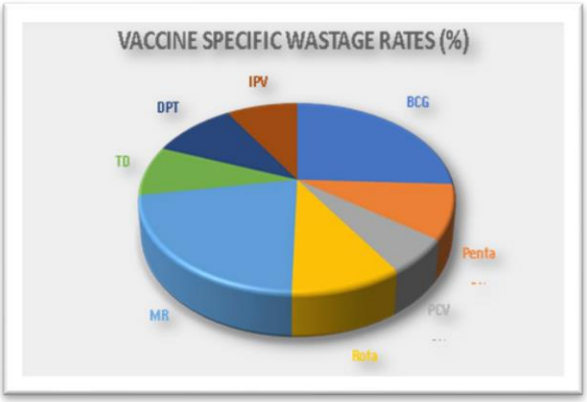
Vaccine wastage rate and wastage factor were

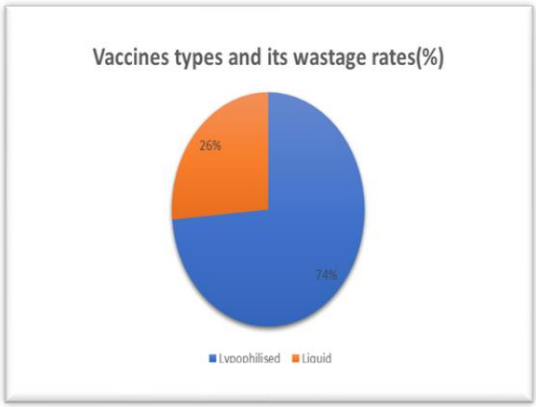
calculated as follows: Vaccine wastage rate = (No. of

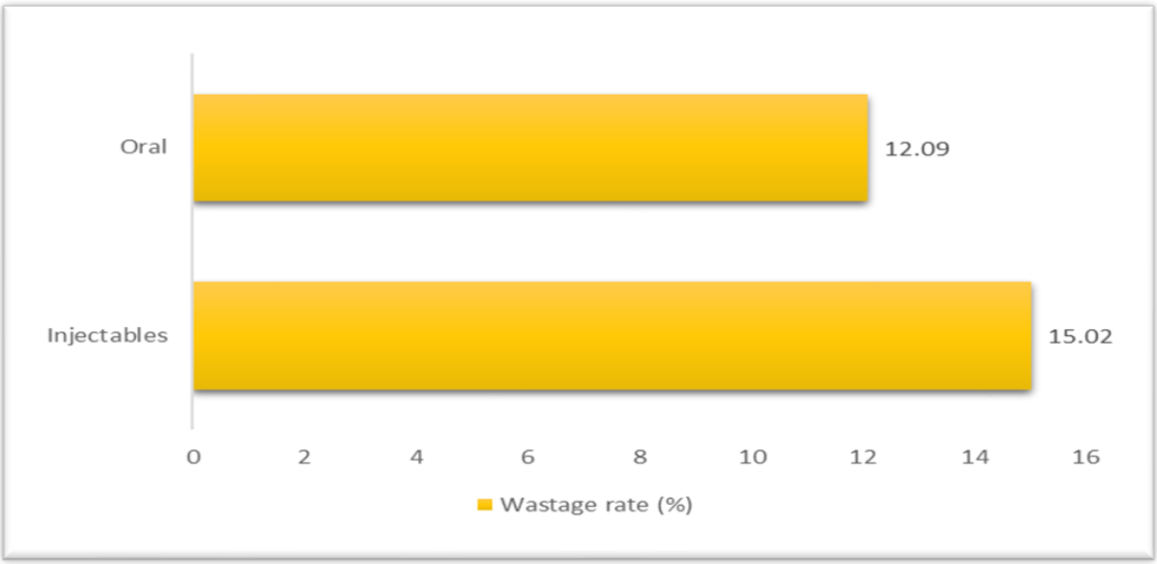
doses wasted/No. of doses issued)×100Vaccine

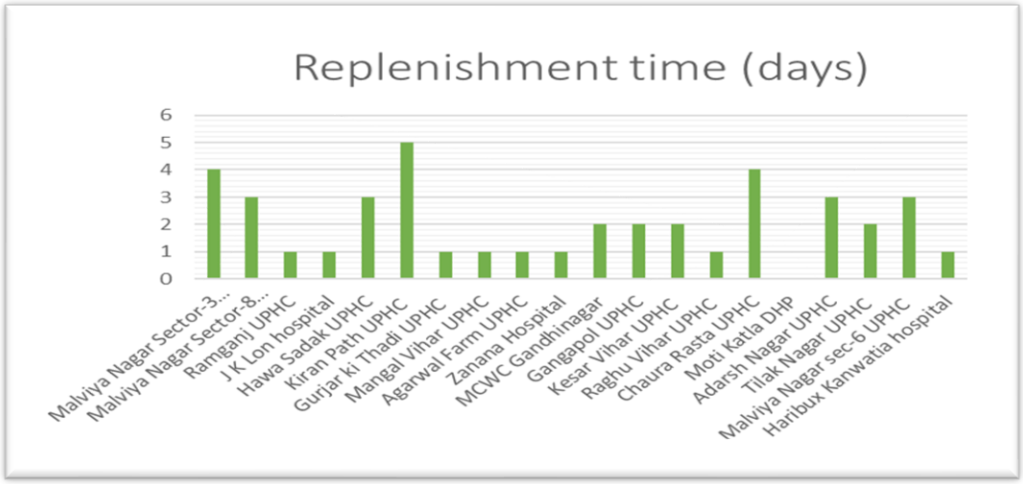
wastage factor = {100/ (100-vaccine wastage rate)}

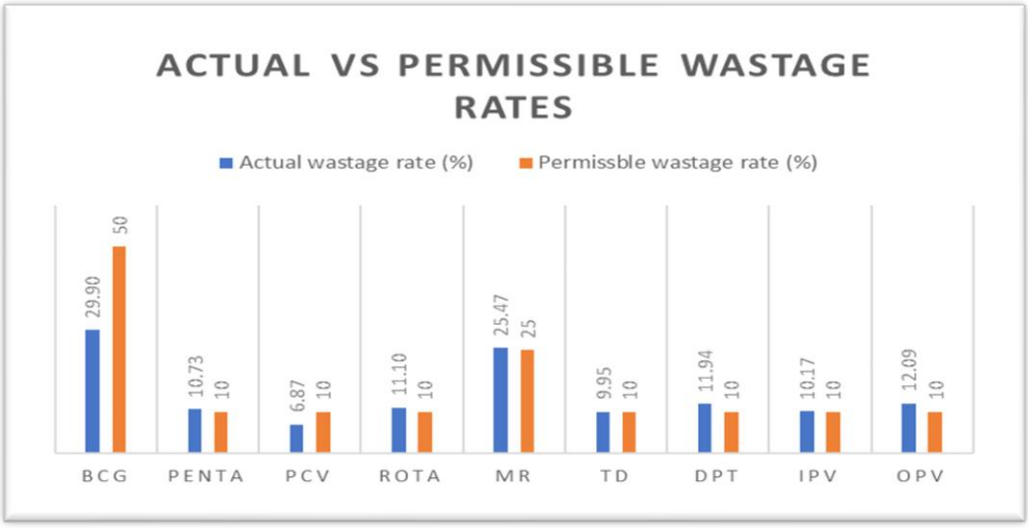
RESULTS :











2. ***Linking theory with practical :***

The preceding theoretical knowledge makes it easier to grasp how different departments operate. The fundamental public health framework that the officials briefed us on over the first few weeks may be relevant to what we learn in class.

found a number of national initiatives that were either directly or indirectly tied to immunization and that we might connect to the lessons being taught in schools.

During the field visits, I became quite familiar with the way the public health institutions and

the health care delivery system operated, and I was able to draw parallels between that and what I had learned in class from different lectures.

Particularly, the beneficiary data in PCTS (Pregnancy, Child Tracking & Health Services Management System) and stock maintenance in eVIN (electronic Vaccine Intelligence Network) could be connected with certain theoretical aspects of digital health and the department's actual technological operations.Theoretical features of digital health could be linked to the field's use of technology in stock management and beneficiary information management.

While gathering firsthand information and conducting field observations, we may apply what we have learned in the classroom by engaging with a wide range of individuals, effectively expressing our concerns, and obtaining unique insights. Effective communication theory and organizational behavior theory may be related to the day-to-day operations of the facilities and dealing with a diverse workforce.

When analyzing the data and understanding the results, some features of biostatistics theory were useful (particularly when creating charts and graphs). The dispersed theoretical instruction in Microsoft Excel and other software from several courses proved beneficial in compiling and structuring the collected data.

In terms of health management, the functioning and operation of the immunization department were even more apparent. This could add to the understanding of health policy, the health care delivery system, and some demography lessons in the classroom. This aided in the interpretation and analysis of the data.

3. ***Gaps identified in the working area:***

- It can be challenging to distinguish between the routine immunization (RI) and cold chain management departments within the National Health Mission (NHM), given their mutual dependence. Understanding the organizational structure takes some time due to its complexity. There is variation in how the health facilities operate because of the massive amount of data and the size of their workforce.One of the biggest challenges encountered during facility observation was the vast amount of data and widespread networking among staff members of the health institutions, as well as some misreading of instructions. I thought the department did not provide us with enough direction for our study, and we did not have enough time to fully comprehend the minute elements of the vaccine and supply chain management.

  The organization I work for and the physical field visits I conducted revealed gaps in the data collection process. These gaps included the unsupportiveness of some CCHs (Cold Chain Handlers), the lack of staff in CCPs (Cold Chain Points), the non-uniformity in function of various CCPs attributed to extensive and massive systems, the speed at which we were able to locate the facilities, our lack of formal training and proper guidance, and our limited time to comprehend the micro-management of the immunization department. The unwillingness of the individuals to take swifter

action and deal with the facility's ground personnel problem.
In addition to the aforementioned, I was unable to verify or authenticate the key qualitative data provided by the Cold Chain Handler (CCH), which may be a sign of my possible deficiency in technical expertise in this area. It took us a long time and a lot of work to arrange our own transportation during the visits, and the locations of the facilities weren't exactly marked on Google Maps.

- Gaps found following the examination of the study's primary data and interpretation of the findings
  The study's gaps include the existence of significant variations in the population covered by each CCP, the number of vaccinators, and the number of monthly sessions; a certain degree of unequal service distribution; a lack of supervisory visits in CCPs and its negative impact on the CCPs' quality of maintenance; and a lack of clarity among CCHs regarding AEFI data and its record-keeping.

4. Suggestions for improvement:

In addition to orientation, it would be quite beneficial if we received some official training on the department's administrative and technical facets.
Governmental or non-governmental organizations should inspect the medical facilities more frequently in order to significantly reduce flaws and enhance the quality of the services.

By coordinating the work in the current department, it would be beneficial if we also had the opportunity to collaborate in other departments. Both our knowledge and our range of job experience would increase as a result.

Additionally beneficial would be the provision of official government documents in both Hindi and English, as well as the installation of conspicuous signage in both languages throughout the Directorate. In addition to the aforementioned, I thought there ought to be better departmental communication.

Recommendations from the Study: The department has received some significant recommendations based on the study that was conducted.

The CCPs' monitoring, maintenance, and record-keeping might be improved if supervisory visits increased in frequency.
• Further training for staff members may also be necessary to enable them to administer the CCP effectively with the resources at their disposal.
• There was a lot of confusion surrounding the AEFI record keeping, thus it is important to make sure that ANMs and nursing officers who administer vaccinations understand it clearly.
• A relatively speedy grievance redressal process for managerial and associated concerns could be implemented for the CCP vaccinators.