SUMMER INTERNSHIP REPORT

AT

NATIONAL HEALTH MISSION PUNJAB

MONITORING AND EVALUATION DEPARTMENT

(April 30th to June 30th, 2024)

A Report By:

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PGDM (Hospital and Health Management) 2023-2025

International Institute of Health Management Research, New Delhi

Shivangi Mishra ST

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Certificate of Approval

The Summer Internship Project of titled **"HARMONISING REPRODUCTIVE HEALTH DATA: A COMPARATIVE ANALYSIS BETWEEN HMIS AND RCH PORTAL METRICS"** at **IIHMR DELHI** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed, or conclusion drawn there but approve the report only for the purpose it is submitted.

Mentor: Dr. Anandhi Ramachandran
Designation: Professor
IIHMR, Delhi

ACKNOWLEDGEMENT

I want to express my deep appreciation to Ms. Vasundhara Ma'am (Manager M&E) for overseeing my internship at the National Health Mission, Punjab within the Monitoring and Evaluation division. Her guidance and feedback were incredibly valuable to me during the two months of my internship. Furthermore, she motivated me to explore new areas within the public health sector. I am also grateful to Akshay Sir, Kamalpreet Ma'am, Manish Sir,and Sheetal Ma'am from the M&E Division, who supported me in various aspects of my internship. They were always there to provide support, share their insights, and offer their experiences. Additionally, I would like to thank the ABDM Project management core unit members for their encouragement and guidance, which helped to boost my confidence throughout my internship.

Under the guidance of Anandhi Ramachandran Ma'am, I am grateful for the opportunity to prepare this report. This internship has provided me with valuable learning experiences, and I am grateful for the support and guidance offered by the entire team at the National Health Mission, Punjab. I plan to utilize the skills and knowledge acquired during this internship in my future pursuits.

(Completion of Summer Internship from respective organization)

The certificate is awarded to

Name DR. SHIVANGI MISHRA

In recognition of having successfully completed his/her Internship in the department of

Title Reproductive health data : A comparative analysis of HMIS and RCH portal metrics

and has successfully completed her Project on

Title of the Project

Date 28/06/24

Organisation NHM Punjab

He/She comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning

We wish him/her all the best for future endeavors

Organization Supervisor

Head-HR/Department Head

FEEDBACK FORM

(Organization Supervisor)

Name of the Student: Dr Shivangi Mishra

Summer Internship Institution: National Health Mission Punjab

Area of Summer Internship: Monitoring and Evaluation Department

Attendance: Regular

Objectives met: yes

Deliverables: yes

Strengths: Too disciplined & humble. Enthusiastically completed the work.

Suggestions for Improvement:

Signature of the Officer-in-Charge (Internship)

Date: 28/06/24
Place: NHM Punjab

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2. ACRONYMS/ ABBREVIATIONS

MOHFW- Ministry of Health & Family Welfare

NHM – National Health Mission

NRHM- National Rural Health Mission

NRUM- National Urban Health Mission

RCH – Reproductive and child health

HMIS – Health Management Information System

M&E – Monitoring and evaluation

HRP – High-risk pregnancies

MH- Maternal health

UH- Urban health

UPHC- Urban primary health center

IA –Information assistants

ANM- Auxiliary nursing midwifery

3. OBSERVATIONAL LEARNING:

3.1 INTRODUCTION

NATIONAL HEALTH MISSION PUNJAB

The Government of India launched the National Health Mission (NHM) Punjab as a key initiative to improve the healthcare system in Punjab, aiming to provide fair, affordable, and high-quality health services. This mission combines the National Rural Health Mission (NRHM) and the National Urban Health Mission (NUHM) and aims to enhance healthcare infrastructure, ensure that health services are accessible to all groups of people, and cater to the various health requirements of the population.

3.2 OBJECTIVES

The **Monitoring and Evaluation (M&E) Department** in NHM Punjab plays a crucial role in ensuring transparency, accountability, and evidence-based decision-making. Here are the key objectives of this department:

1. The primary objective is to establish a systematic process for monitoring and evaluating health facilities and initiatives within the Department. This ensures that data-driven insights guide program implementation and improvement.

2. The department aims to improve monitoring, enhance efficiency, and ensure quality provision of family planning and reproductive health services for better health outcomes.

3.3 GENERAL FINDINGS

1. VISITED AAM AADMI CLINIC PHASE 11 TO EVALUATE THE ABHA SCAN AND SHARE THE SUPPORT DESK'S OPERATION

Findings:

- **Total number of OPD patients**: 161
- **Number of tokens generated by ABHA scan and share desk**:14

Observations:

- Limited awareness among the community members about the ABHA system.
- Low availability and usage of smartphones within the community, hindering the adoption of digital processes.
- The clinical assistant was overwhelmed due to the high patient volume.

2. Health facility registry linkage in RCH

HFR, or Health Facility Registry, is a component of health information systems, such as the Reproductive and Child Health (RCH) portal. The RCH portal typically integrates various health-related data and services, facilitating efficient management and delivery of healthcare, particularly for reproductive, maternal, newborn, and child health.

Findings:

•**Facilities:**

- Total number of facilities: 613
- Verified facilities: 444
- Unlinked facilities: 169

•**Sub-Facilities:**

- Total number of sub-facilities: 3036
- Verified sub-facilities: 2568
- Unlinked sub-facilities: 468

Based on the data, a notable proportion of both facilities and sub-facilities have not been verified, pointing out potential areas for enhancing the verification processes. There is a substantial amount of unconnected facilities and sub-facilities, indicating a requirement for more effective linking and tracking systems.

3. TRACKING IMMUNIZATION SERVICES FOR CHILDREN APRIL 2023

FINDINGS :

- **Overall Registration and Coverage:**
    - A total of 23,956 children were registered.
- The vaccination coverage varies significantly across different vaccines.

- **High Coverage Vaccines:**
    - **BCG:** 84% of registered children received the BCG vaccine, indicating a strong uptake.
    - **OPV0:** 82% coverage, also showing high acceptance.
    - **HEP0:** 81% coverage, demonstrating a similar trend to BCG and OPV0.
    - **VITK:** 63% coverage, relatively higher compared to other vaccines but lower than BCG, OPV0, and HEP0.
- **Moderate Coverage Vaccines:**
    - **PENTA1:** 42% of children received the first dose of the pentavalent vaccine.
    - **OPV1:** 42% coverage, aligning with PENTA1.
    - **MR1:** 42% coverage for the first dose of the measles and rubella vaccine.
    - **PCV1:** 42% of children received the first dose of the pneumococcal conjugate vaccine.
- **Low Coverage Vaccines:**

    - **OPV2:** Only 39% of children received the second dose of the oral polio vaccine.
    - **Rota1:** 42% coverage for the first dose of the rotavirus vaccine.
    - **Rota2:** 39% coverage for the second dose of the rotavirus vaccine.
    - **PENTA2:** 38% received the second dose of the pentavalent vaccine.
    - **PENTA3:** 37% received the third dose of the pentavalent vaccine.
    - **OPV3:** 37% received the third dose of the oral polio vaccine.
    - **IPV1:** 42% received the first dose of the inactivated polio vaccine.
    - **IPV2:** 37% received the second dose of the inactivated polio vaccine.
- **Very Low Coverage Vaccines:**
    - **PCV2:** 31% of children received the second dose of the pneumococcal conjugate vaccine.
    - **PCBB:** Only 20% of children received the birth dose of the pneumococcal conjugate vaccine.
    - **All Vac:** 29% coverage indicating that a significant number of children did not receive all required vaccines.

OBSERVATIONS:

- The coverage for most vaccines, such as OPV, PENTA, and Rota vaccines, shows a noticeable decline from the first dose to later doses. For example, OPV coverage decreases from 42% for OPV1 to 37% for OPV3, indicating potential issues with follow-up and adherence to the vaccination schedule.
- When comparing different vaccines, those given at birth (BCG, OPV0, HEP0) have higher coverage rates than those requiring multiple doses over time. There is a significant gap between the initial vaccination rates and the rates for subsequent doses, emphasizing the need for interventions to improve follow-up and completion rates.

RECOMMENDATIONS:

- Efforts should focus on enhancing education and raising awareness about the importance of finishing the vaccination schedule.
- Implementing follow-up systems and sending reminders for subsequent doses could enhance the coverage rates for vaccines that require multiple doses.
- Developing specific plans to improve follow-up and ensure coverage for subsequent doses is essential for increasing overall vaccination rates.

4. **TRACKING PREGNANT WOMEN SERVICES FOR APRIL 2023**

FINDINGS:

•**Total Registrations and Initial Care:**

- **Pregnant Women Registered:** 1585
- **ANC1 (First Antenatal Check-up):** 1197
    - **Percentage of ANC1:** ≈75.5%
- A significant number of women registered received their first antenatal check-up.

- **ANC2:** 1159

    - **Percentage of ANC2:** ≈73.1%
- **ANC3:** 906
    - **Percentage of ANC3:** ≈57.2%
- **ANC4:** 594
    - **Percentage of ANC4:** ≈37.5%
- There is a noticeable drop in the number of women attending subsequent ANC visits.

•Tetanus Toxoid (TT) Vaccinations:

- **TT1:** 1287
    - **Percentage of TT1:** ≈81.2%
- **TT2:** 905
    - **Percentage of TT2:** ≈57.1%
- **TTBooster:** 201
    - **Percentage of TTBooster:** ≈12.7%
- The majority of women received their first TT shot, but fewer returned for the second and booster shots.

•Iron Folic Acid (IFA) Supplementation:

- **IFA Distribution:** 418
    - **Percentage of IFA:** ≈26.4%
- Less than a third of the women received IFA supplements.

•Deliveries:

- **Deliveries:** 1252
    - **Percentage of Deliveries:** ≈79.0%
- A high percentage of registered women proceeded to delivery.

•All ANC Coverage:

- **All ANC (RCH):** 312
- **All ANC (MCTS):** 0
- **All ANC (Total):** 312
    - **Percentage of All ANC (Total):** ≈19.7%
- Comprehensive ANC coverage is low, indicating potential gaps in follow-up.

•Any Three ANC Visits:

- **Any Three ANC Visits:** 817≈51.5%
- Over half of the women attended at least three ANC visits.

•Adverse Outcomes:

- **Death Reported during ANC Period:** 0
- **Abortions:** 58
    - **Percentage of Abortions:** ≈3.7%
- There were no maternal deaths reported, but there were a few cases of abortion.

OBSERVATIONS:

- The data indicates that although a substantial number of expectant mothers undergo initial prenatal care after registration, there is a decrease in subsequent follow-up visits. Initial tetanus toxoid vaccination coverage is satisfactory, but there is a significant drop in coverage for subsequent doses.
- The uptake of IFA supplementation is notably low, indicating a requirement for improved distribution or uptake.
- Despite adequate registration and initial care, there is a deficiency in comprehensive ANC coverage, necessitating efforts to enhance follow-up care.
- The delivery rate among registered women is high, with minimal maternal deaths; however, there are instances of abortion.

4. REPORT: Harmonizing Reproductive Health Data: A Comparative Analysis of HMIS and RCH Portal Metrics

4.1 INTRODUCTION

Reproductive health is a crucial part of public health, affecting population numbers, individual well-being, and economic development. To effectively manage reproductive health services, we need good ways to collect and understand data. The Health Management Information System (HMIS) and the Reproductive and Child Health (RCH) portal are important tools for keeping track of reproductive health information. These systems gather, store, and analyze lots of data, helping health administrators and policymakers make good decisions. This report compares the HRP data of the month April 2024 from HMIS and the RCH portal. It looks at how they collect data, how accurate the data is, and how they impact reproductive health management. By comparing these two systems, the report hopes to find ways to improve how they work together and make reproductive health information better.

A high-risk pregnancy(HRP) refers to a situation where either the mother or the baby faces an increased likelihood of health problems before, during, or after delivery. Several factors contribute to a pregnancy being considered high-risk:

1. Pre-existing Health Conditions: Certain medical conditions that exist before pregnancy such as high blood pressure, diabetes, epilepsy, and heart or blood disorders can elevate the risk.

2. Pregnancy-Related Health Conditions: Conditions that develop during pregnancy like preeclampsia (high blood pressure during pregnancy), unusual placental location, or fetal growth restriction can also increase risk.

3. Lifestyle Factors: Lifestyle choices such as smoking, alcohol use, and exposure to toxins can impact pregnancy risk.

4. Age: Pregnant individuals younger than 20 or older than 35 are at higher risk.

❖ Health Management Information Systems (HMIS) data and the Reproductive Child Health (RCH) Portal

1. Purpose and Scope:

HMIS Data: HMIS collects data from health facilities pertaining to various health services, including maternal, newborn, and child health.

RCH Portal: The RCH Portal focuses on interventions related to reproductive, maternal, newborn, and child health.

2. Data Sources:

HMIS Data: Data is obtained from health facilities, clinics, and hospitals.

RCH Portal: It is designed for early identification, tracking, and reporting of individual beneficiaries throughout their reproductive lifecycle.

3. Coverage Estimation:

HMIS Data: Underutilized due to concerns about data quality.

RCH Portal: Aims to promote, monitor, and support reproductive, maternal, newborn, and child health (RMNCH) schemes/programs.

4.2 OBJECTIVES

1. DATA CONSISTENCY AND ACCURACY
    - Verify that the same HRP cases are captured consistently across both systems.
    - Identify and address any inconsistencies that could significantly impact decision-making.
2. DATA LINKAGE AND QUALITY
    - Identify and address areas requiring improvement in data quality assurance mechanisms.
    - Verification of the data's authenticity on the portal is essential for informing program and policy decisions, as well as health initiatives.

4.3 DATA ANALYSIS

- **The HRP data for April 2024 was obtained from both the HMIS and RCH portals. Subsequently, a thorough analysis of the data discrepancies was conducted, and the concerned districts were promptly engaged to furnish explanations for these disparities. Comments from various districts were gathered and meticulously scrutinized**.

HIGH-RISK PREGNANCY DATA FOR APRIL 2024				
DISTRICTS	**HMIS DATA**	**RCH DATA**	**DIFFERENCE**	**Remarks From Districts**
AMRITSAR	487	551	-64	HMIS provides facility-wise reporting while RCH offers coverage data, resulting in non-identical data.

BARNALA	198	171	27	HMIS data is correct, Update RCH portal.
BATHINDA	785	260	525	Block IA has been directed to promptly complete RCH data according to HMIS guidelines within the next two days as the HMIS Data has been updated.
FARIDKOT	308	91	217	In the HMIS Portal HRP-244 is correct (Data error), In RCH Portal data is updated as early as possible.
FATEHGARH SAHIB	307	176	131	The HRP in the HMIS was 276, it was corrected, and 176 entries were made in the RCH Portal. Pending ANM Data in the RCH Portal is being updated.
FAZILKA	477	254	223	In RCH Portal data will beupdated as early as possible.
FEROZEPUR	263	180	83	As per the 19 June 2024 report, 250 high-risk pregnancies enter the RCH portal. Pending high-risk pregnancies will be updated soon
GURDASPUR	442	565	-123	The HMIS data has been successfully updated, and the IA's have been instructed to complete the update within a week.
HOSHIARPUR	80	493	-413	The data in the RCH portal has not been entered yet, which is why there is a difference.
JALANDHAR	388	142	246	Information Assistants have been instructed to update the HRP data on the RCH Portal.
KAPURTHALA	354	338	16	A total of 346 HRPs registered in the RCH Portal as of 30 June 2024. Registration of the pending 8 HRPs will be completed today.
LUDHIANA	602	281	321	Ludhiana Urban has sanctioned 190 ANMS posts, but only 75 are filled, leaving 115 vacant. Due to staff shortage, timely portal updates are not possible, leading to discrepancies. We are working to resolve these issues promptly
MALERKOTLA	209	126	83	Data entry is pending so in a few days we will get the data entered in the portal.

MANSA	278	108	170	RCH data for April is incomplete but will be completed soon, and we will resolve discrepancies by next week.
MOGA	350	149	201	Difference between area-wise & facility-wise reporting. Late high-risk pregnancy entries are given by ANM's.
PATHANKOT	146	171	-25	Both portals required immediate updating. HMIS data has been updated, and IA's must complete the updating within one week.
PATIALA	787	282	505	Data is correct
RUPNAGAR	414	204	210	The HMIS includes all pregnant women identified as high risk in April 2024, including those registered in previous months and in April 2024, as well as intrapartum high risk pregnant women.
SAHIBZADA AJIT SINGH NAGAR	37	219	-182	Data Updated,,Out of 3 blocks 2 bsa are on maternity leave. In DH IA not available.
SANGRUR	554	249	305	Some parameters like previous C-section, HB, and BP are not classified as High-Risk Pregnant Women by RCH Portal. Another issue is the disparity between the weekly entries in the RCH Portal and the monthly entries in HMIS.
SHAHID BHAGAT SINGH NAGAR	1	227	-226	In April, HMIS reported a total of 18 high-risk pregnancies, which included cases of hypertension, severe anemia, gestational diabetes, TB, and post-delivery sepsis. The RCH Portal includes additional high-risk factors not captured in HMIS, such as twin pregnancies, previous cesarean sections, Advancedmaternal age, short stature, and negative blood type.

SRI MUKTSAR SAHIB	407	130	277	The Information Assistants have been instructed to complete high-risk PW data in RCH Portal as per HMIS data at the earliest.
TARN TARAN	304	177	127	We have updated data in the RCH portal
TOTAL	**8178**	**5544**	**2634**	

4.4 DATA INTERPRETATION

It is evident that discrepancies exist between the two systems, and addressing these differences is essential for accurate reporting and decision-making. Based on the provided data, the following key points should be noted:

1. Facility-Wise Reporting vs. Coverage Data:

HMIS prioritizes facility-wise reporting, while the RCH portal offers coverage data, leading to potential data disparities.

2. Data Updates and Discrepancies:

While HMIS data has been updated, the RCH portal data is pending. Information Assistants (IAs) have been tasked with completing RCH data per HMIS guidelines. Timely entry of high-risk pregnancies (HRPs) is critical to minimize discrepancies.

3. Specific Discrepancies:

Parameters such as previous C-sections, hemoglobin (HB), and blood pressure (BP) are not classified as High-Risk Pregnant Women by the RCH Portal. Weekly entries in the RCH Portal differ from monthly entries in HMIS. The RCH Portal includes additional high-risk factors not captured in HMIS.

4. Staff Shortage Challenges:

A shortage of staff, particularly in Ludhiana Urban, impacts timely portal updates. Addressing this issue is crucial to ensure accurate data entry.

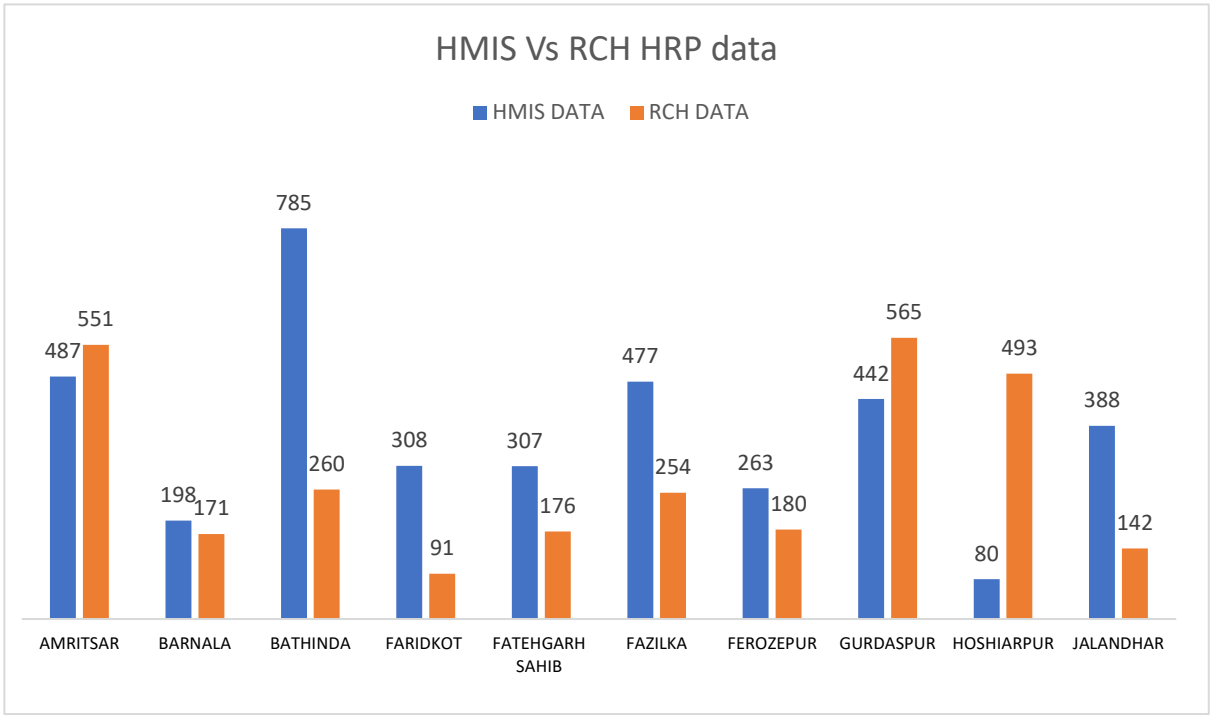

Figure 1: 10 DISTRICTS

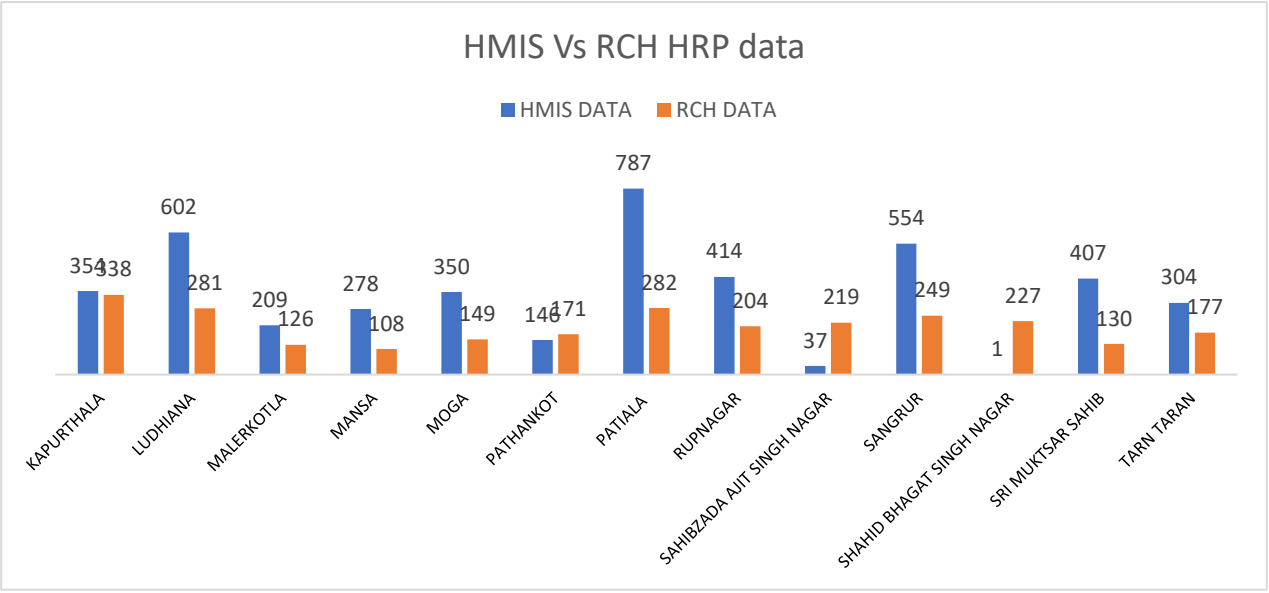

Figure 2: 13 DISTRICTS

Issues with Specific Districts:

- Amritsar, Gurdaspur, Hoshiarpur: Ensure RCH data is reviewed and updated to align with HMIS data. Barnala, Pathankot: Rectify any discrepancies in the RCH portal to match HMIS records.
- Bathinda, Faridkot, Fazilka, Ferozepur, Jalandhar, Moga, Sangrur, Sri Muktsar Sahib, Tarn Taran: Promptly update the RCH portal based on HMIS data and instruct IAs and ANMs accordingly.
- Fatehgarh Sahib, Kapurthala, Malerkotla, Mansa, Rupnagar: Ensure completion of pending data entries in the RCH portal.
- Sahibzada Ajit Singh Nagar: Address staffing issues to maintain consistent data updates, such as maternity leave and unavailability of IAs.
- Shahid Bhagat Singh Nagar: Standardize data entry parameters to encompass all high-risk factors in both portals.

4.5 RECOMMENDATIONS

The discrepancies in data between the HMIS and RCH portals for high-risk pregnancies in April 2024 suggest the need for the following recommendations:

- Standardize guidelines for data entry to ensure consistent classification and reporting of high-risk pregnancies across the HMIS and RCH portals.
- Provide training for healthcare workers and Information Assistants (IAs) to ensure adherence to the standardized guidelines and reduce discrepancies.
- Enhance communication between districts and the central data management team to facilitate timely updates and corrections.
- Establish regular coordination meetings to promptly review data entries and address any discrepancies.

- Resolve workforce deficiencies, like in Ludhiana, which has only 75 filled positions out of 190 ANM. Consider hiring more personnel or offering temporary assistance to guarantee prompt data entry, Distribute resources to districts experiencing data entry setbacks to speed up the process.
- Portals should be updated and synchronized to maintain consistent data entry points and parameters. Automated checks and alerts for significant discrepancies should be put in place to prompt immediate review and correction.
- Regular audits should be conducted to verify data accuracy and pinpoint areas for improvement, The findings from audits should be utilized to offer feedback and training to the relevant staff.
- It is important to ensure that IAs and ANMs are fully aware of their specific tasks and deadlines for updating the portals.

Implementing these recommendations can help minimize discrepancies between the HMIS and RCH portals, ultimately leading to more accurate and reliable data on high-risk pregnancies.

4.6 CONCLUSION

The comparative analysis of the HRP data for April 2024 from the Health Management Information System (HMIS) and the Reproductive and Child Health (RCH) portal has highlighted significant discrepancies that needs attention for improved data accuracy and reliability. Accurate and reliable data are crucial for effective reproductive health management and policy formulation.

The discrepancies observed in the HRP data across various districts underscore the need for standardized guidelines and consistent data entry practices between the HMIS and RCH portals. The divergence in data collection methodologies, such as facility-wise reporting versus coverage data, contributes to these inconsistencies. Additionally, staff shortages and pending data entries further exacerbate the issue, particularly in districts like Ludhiana Urban, where vacant positions hinder timely updates.

In order to tackle these issues, a number of important recommendations have been suggested:

- Standardization and Training: Implementation of standardized data entry guidelines and provision of training for healthcare workers and Information Assistants (IAs) to ensure compliance with these guidelines.
- Improved Communication: Enhancement of communication between districts and the central data management team to facilitate timely updates and corrections.
- Scheduled Coordination Meetings: Organize regular meetings to review data entries and promptly address any discrepancies.
- Addressing Workforce Deficits: Resolving staffing issues, particularly in districts with significant shortages, to ensure timely and accurate data entry.
- Regular Audits: Carry out regular audits to verify data accuracy and offer feedback and training to relevant staff.

Applying these suggestions could align the data gathered from the HMIS and RCH portals, resulting in more precise and dependable information regarding high-risk pregnancies. Consequently, this can advance the management of reproductive health, facilitate well-informed decision-making, and ultimately enhance public health outcomes. By rectifying the noted inconsistencies and enhancing data accuracy, the HMIS and RCH portals can collaborate more efficiently to ensure accurate monitoring and management of high-risk pregnancies, thereby contributing to improved maternal and child health.

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