



Patterns and Trends of Diseases Under Integrated Disease Surveillance Project in Rajasthan



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NATIONAL HEALTH MISSION

The National Health Mission (NHM) was launched in the month of April by the government of India in 2005. The National Health Mission (NHM) encompasses its two Sub-Missions, **The National Rural Health Mission (NRHM) 12 April 2005** and **The National Urban Health Mission (NUHM) 1 May 2013**.

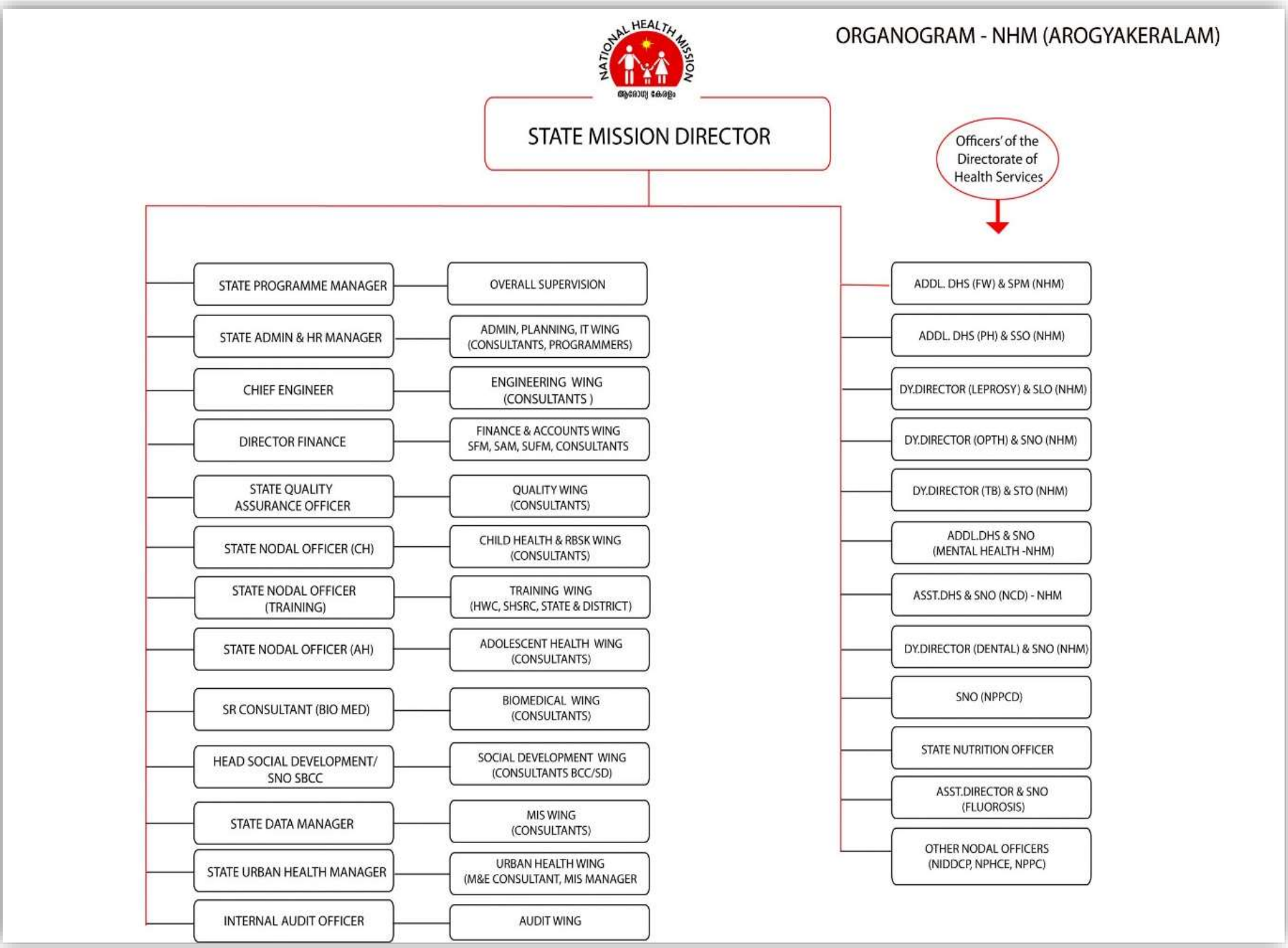
VISION

Attain universal access to equitable, affordable, and quality healthcare services that are accountable and responsive to the needs of the people, especially the vulnerable and underprivileged."

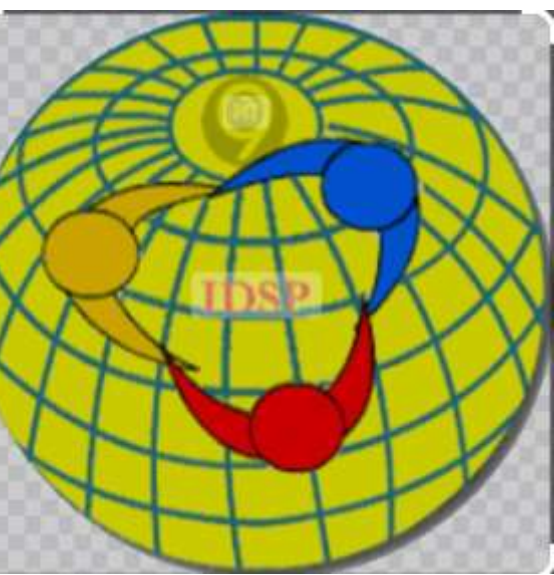
MISSION

Our Mission of NHM is to provide accessible, affordable, and quality healthcare services for all, focusing on marginalized populations, reducing infant and maternal mortality, promoting disease prevention and management, strengthening healthcare systems, and prioritizing vulnerable groups

ORGANISATION STRUCTURE



Integrated Disease Surveillance Programme (IDSP)



Integrated Disease Surveillance Programme (IDSP) was launched by Hon'ble Union Minister of Health & Family Welfare in November 2004 for a period upto March 2010. The project restructured and extended up to March 2012. The project continues in the 12th Plan with domestic budget as Integrated Disease Surveillance Programme under NHM.

OBJECTIVE:

To strengthen /maintain decentralized laboratory based IT enabled disease surveillance system for epidemic prone diseases to monitor disease trends and to detect and respond to outbreaks in early rising phase through trained Rapid Response Team (RRTs).

AIM OF THE PROJECT

"The Integrated Disease Surveillance Project in Rajasthan aims to monitor and analyze the patterns and trends of various diseases to identify outbreaks, inform public health policies, enhance surveillance systems, promote health education, and foster collaboration among health agencies, thereby improving overall public health outcomes in the region."

RESEARCH QUESTION

What are the patterns and trends in the incidence and prevalence of infectious diseases in Rajasthan as recorded by the Integrated Disease Surveillance Project over the past 5 years, and how do these trends vary by age, gender, and region?"

OBJECTIVE

- This Study aims to observe the Patterns and Trends of Diseases Under Integrated Disease Surveillance Project in Rajasthan: The purpose of the study was to document the physical performance of the surveillance system on its core and support functions.

METHODOLOGY

A mixed-method study was conducted by the state surveillance team Rajasthan. The overall purpose of the study analysis of qualitative and quantitative data was to have insight into the implementation of IHIP using the existing surveillance systems to check acceptance of IHIP and identify necessary actions that can be incorporated to improve the disease surveillance system.

Data were collected through two main mechanisms:

- Quantitative data
- Qualitative data through stakeholder interviews with health care staff.

Quantitative data: - After obtaining permission from the state surveillance officer of the Rajasthan, quantitative data from 2019 to 2023 was collected from the state unit IDSP Data were collected in three different reporting formats for syndromic, presumptive, and laboratory-confirmed cases. Secondary quantitative data were analyzed using Microsoft Excel version 10 to observe the trends and patterns of notifiable diseases. Data were presented in tables and graphs to understand the variations in reporting of notifiable diseases under IDSP.

Qualitative data: A qualitative study was done to understand the perspective and to have a better understanding of challenges faced by healthcare workers during the implementation of IHIP activities by health care workers. Primary qualitative data were collected through key informant interviews with selected stakeholders at the selected health facilities, DSO in Rajasthan. The study sampled vital informants such as Medical Officers, DEO, Pharmacist, BCMO, ANM, ASHA, who are overseeing the activities at district level. All the recorded interviews were transcribed verbatim and translated into the English language. The thematic analysis approach was adopted to analyze the qualitative data.

ANALYSIS

The Data has been collected about the following factors

- Syndromic cases
- Presumptive cases
- Laboratory Confirmed cases
- Outbreaks

And the data has been collected by asking the set of Questionnaire.

FINDINGS

A comparison of national statistics with the state of Rajasthan showed that the state reported the maximum number of outbreaks in 2019 (2.3% of India), subsequently decreasing from 2020 to June 2024.A surge in the outbreaks was reported in 2022 nationwide. The downward trend was observed till 2020, followed by a rise in 2022[Table 1]. As of december 2023, 1192 outbreaks were reported throughout the country.

Comparative Summary:

- Overall Trend:** The number of outbreaks in Rajasthan fluctuated significantly over the five years, with a peak in 2019 and a significant drop in 2020 and 2021, followed by a rise in 2022 and a slight decrease in 2023.
- Proportional Impact:** The proportion of outbreaks in Rajasthan compared to the national total varied, reflecting changes in the overall outbreak scenario in India and specific conditions in Rajasthan.
- Contextual Factors:** Discuss potential factors influencing these trends, such as public health initiatives, environmental changes, pandemic effects, and improvements in disease surveillance and reporting systems.

Table : 1 Year wise distribution of outbreaks reported in Rajasthan and India under IDSP

Year	Outbreaks reported in Rajasthan (outbreak proportion compared with country numbers)	No. of Outbreaks reported in Country
2019	40	1677
2020	3	554
2021	1	728
2022	27	1027
2023	16	1862

Table 2: Year-wise distribution of Syndromic cases in various districts of Rajasthan

Syndrome reported under IDSP	2019	2020	2021	2022	2023
Cough with or without fever (>2weeks)	769303	465325	936	167193	259016
Fever with rash	3608	3350	157	4593	4903
Fever <7 days	2251573	1508351	5342	398310	606442
Loose watery stool (<2 weeks) with blood	173	210	71	2766	2322
Jaundice <4 weeks	86	64	80	1478	1600
Acute flaccid paralysis	15	7	27	273	301

Table 3: Distribution of Presumptive cases reported in IDSP Rajasthan from 2019-2023

Presumptive cases in Districts of Rajasthan	2019	2020	2021	2022	2023
Acute respira1tory infection	10922190	6536834	78811	334657	334709
Acute diarrheal disease	1605092	847392	7876	55800	46108
Chikungunya	1208	1063	19	197	240
Dengue Haemorrhagic fever	48137	11195	3885	16484	40979
Diphtheria	594	1119	122	429	147
Measles	382	227	26	349	355
Acute encephalitis	618	566	29	76	107
Chicken pox	5579	4467	40	356	308
Meningitis	795	604	10	47	32
Malaria	535865	410628	18980	289863	422266
Dog bite	450558	329917	546	88028	103533
Snake bite	9521	10783	22833	1310	1487

Table 4: Distribution of Lab confirmed cases reported in IDSP in Urban Block Rajasthan from 2019-2023

Lab confirmed cases	Sample tested (2019-2023)	Found positive (2019-2023)	2019	2020	2021	2022	2023
Malaria	10262495	11054(0.10%)	0.04%	0.02%	0.00%	0.01%	0.02%
Chikungunya	35614	1493(4.19%)	2.03%	1.51%	0.11%	0.12%	0.39%
Dengue Haemorrhagic fever	436279	40124(9.19%)	2.49%	0.25%	0.75%	1.87%	3.82%
Hepatitis A	25009	1476(5.90%)	2.51%	0.49%	0.06%	0.53%	2.28%
Hepatitis E	10416	321(3.08%)	2.35%	0.24%	0.03%	0.23%	0.22%
Japanese Encephalitis	1028	6(0.58%)	0.09%	0.19%	0	0	0.29%
Typhoid fever	2386899	175754(7.36%)	2.80%	1.03%	0.21%	1.58%	1.72%

SWOT ANALYSIS

- Comprehensive Surveillance Network.
- Data Collection and Analysis.
- Integrated Approach.
- Training and Capacity Building.
- Real-time Reporting.

STRENGTHS

WEAKNESS

- Resource Constraints.
- Data Quality Issues
- Infrastructure Gaps.
- Dependence on reporting unit.
- Integration Challenges.

THREATS

OPPORTUNITIES

- Emerging Diseases.
- Political and Economic Instability.
- Public health Crisis.
- Resistance to change.
- Privacy concerns.

- Technological Advancements.
- Public Awareness Campaigns.
- International Collaborations.
- Policy Support.
- Expansion of Surveillance Scope.

FIELD VISIT



THEORITICAL WORK

- Review of the literature paper
- Familiarity with maternal death surveillance guidelines..
- Rules and regulations norms policies.

PRACTICAL EXPOSURE

- On site assisment.
- Collected data on admission and discharge processes of the patients in IHIP Portal.
- Created study Performa and questionnaires for Integrated Disease Surveillance Programme .
- Documentation.
- Analyzed protocols and procedures implemented in SMS Medical College
- Reviewed hospital's referral register for the past year.

CHALLENGES FACED DURING THE STUDY

- Exposure to Health care sector.
- communication with the professional and conveying the things was little difficult.
- Lesser time for Data Collection.

LEARNING DURING INTERNSHIP

- opportunity to work in health care sector.
- Practical knowledge of departments, organization structure and work of NHM during our orientation session scheduled for a week.
- Exposure to witness how a Health care System works
- Learn about primary data collection.
- Learn about Data analysis and to make comprehensive report.

USEFULNESS OF INTERNSHIP

- Great learnings of discipline, communication skills, leadership skills.
- Get to know the exact situation of healthcare sector by visiting field and meeting with different professionals.
- Good connections with the staff from lower to higher position.
- Gain confidence by applying both practical and theoretical concepts in field.

SUGGESTIONS

- Strengthen referral guidelines
- Conduct comprehensive training program for healthcare professionals to enhance their skills in obstetric care.
- Establish effective communication and coordination channels between healthcare facilities.
- Establish a feedback loop of referral process
- Analyze feedback from referring and receiving centers
- Conduct community awareness campaign.