

INTERNSHIP PROGRAM

At

IIHMR UNIVERSITY

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A REPORT BY

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**Under the Mentorship of
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Internship Report

Introduction

Vector-borne diseases (VBDs) such as malaria, dengue, chikungunya, Japanese encephalitis (JE), and kala-azar remain a major public health concern in India. This study, conducted during my internship, analyzes national and state-level trends of these diseases from 2018 to 2022 using secondary data from government health sources. The analysis identified consistently high-burden states—particularly Uttar Pradesh, Bihar, West Bengal, Karnataka, and Odisha—where factors like climate, poor sanitation, vector resistance, and urbanization drive transmission.

The findings highlight the need for targeted strategies, stronger surveillance, better diagnostics, and robust health infrastructure to manage VBDs more effectively and support long-term public health planning.

Objectives

1. To analyze the epidemiological trends of malaria, dengue, Chikungunya, JE, and Kala Azar in India over the past decade.
2. To evaluate the effectiveness of national programs and state-level interventions.
3. To identify the gaps in vector control measures and recommend strategies for improved prevention and management.

Organization Profile: IIHMR University

IIHMR University, located in Jaipur, Rajasthan, is a premier postgraduate research university dedicated to the improvement of health systems and public health through education, research, and training. Established in 1984 as the Indian Institute of Health Management Research, it gained university status in 2014. The institution has earned a reputation for excellence in health management education and evidence-based policy research, and it is recognized by the University Grants Commission (UGC).

IIHMR University offers specialized programs in hospital and health management, pharmaceutical management, development studies, and public health. It has collaborated with leading global

institutions such as the Johns Hopkins University, and plays a critical role in capacity building for healthcare professionals across India and other low- and middle-income countries.

Vision: To become a world-class higher education institution by promoting education and research for the betterment of society.

Mission: IIHMR University is dedicated to the improvement in standards of health through better management of health care and related Programs. It seeks to accomplish this through management education, research, training, consultation, and institutional networking in a national and global perspective.

Services Provided by IIHMR University

1. Academic Programs

- MBA in Hospital and Health Management
- MBA in Pharmaceutical Management
- MBA in Development Management
- Master of Public Health (MPH) in collaboration with Johns Hopkins University
- Doctoral (Ph.D.) and Executive Education programs

2. Research and Consultancy

- Health systems and policy research
- Operational research for government and international agencies
- Program evaluation and impact assessments

3. Training and Capacity Building

- Short-term training programs for healthcare professionals
- Management development programs (MDPs)
- Customized training for NGOs, governments, and health agencies

4. Policy Advocacy

- Evidence-based policy recommendations for health sector reforms

- Technical assistance to state and national health missions

5. International Collaborations

- Joint programs and research with institutions like WHO, UNICEF, USAID, and universities worldwide

Key Learnings

1. Understanding of Vector-Borne Diseases in India

Gained in-depth knowledge of the epidemiology, transmission dynamics, and public health impact of major vector-borne diseases such as malaria, dengue, chikungunya, Japanese encephalitis, and kala-azar.

2. Data Analysis and Interpretation Skills

Learned to analyze large datasets from government health databases using techniques like min-max normalization and trend analysis to identify patterns in disease burden across states and over time.

3. Identification of High-Burden States

Recognized consistently vulnerable states—such as Uttar Pradesh, Bihar, West Bengal, Karnataka, and Odisha—where VBDs remain a persistent challenge due to environmental, infrastructural, and socio-economic factors.

4. Insight into Disease Drivers

Developed an understanding of how factors like climate change, urbanization, inadequate sanitation, vector resistance, and diagnostic limitations contribute to the sustained transmission of VBDs.

5. Understanding for Evidence-Based Policy

Understood the critical role of data-driven insights in informing public health strategies and shaping region-specific interventions for disease prevention and control.

6. Application of Research to Policy

Learned how research findings can be translated into actionable recommendations to strengthen vector control programs and health infrastructure for better health outcomes.