

SYNOPSIS

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Enrolment no. – IIHMR-U/01/2023-25/1661

Under the supervision and guidance of college mentor – Dr. Dhirendra Kumar

1. TITLE

Burden of Vector-Borne Diseases in India: A Comprehensive Analysis of Malaria, Dengue, Chikungunya, Japanese Encephalitis (JE), and Kala Azar.

2. INTRODUCTION

Vector-borne diseases are significant public health challenge in India and contribute to high morbidity and mortality rates, especially in endemic regions. Despite government initiatives and disease control programs, the burden of VBDs is still there. Malaria, Dengue, Chikungunya, JE, and Kala Azar continue to affect vulnerable populations, increasing healthcare challenges and economic losses.

This study aims to assess the burden of disease, trends, and evaluate the effectiveness of control programs and intervention strategies. The findings will help identify gaps in prevention, diagnosis, and management while suggesting policy improvements for effective vector-borne disease control.

3. RESEARCH QUESTION

- What is the current burden of malaria, dengue, Chikungunya, JE, and Kala Azar in India, and how has it evolved over time?
- How effective are the existing control programs and intervention strategies?

4. 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.

5. HYPOTHESIS

- Not applicable (Study relies on secondary data from aggregated and processed reports)

6. MATERIAL AND METHODS

STUDY DESIGN:

- Secondary data analysis

STUDY SETTING:

- IIHMR University, Jaipur

STUDY POPULATION:

- Inclusion Criteria: Published data from government databases and state health departments.
- Exclusion Criteria: Non relevant sources.

STUDY TOOLS:

- Secondary data extraction and review from government databases and published reports using MS Excel.

DURATION OF STUDY:

- 3 Months.

SAMPLE SIZE:

- Data from national and state surveillance systems over 5 years.

SAMPLING TECHNIQUE:

- Purposive sampling of relevant data sources.

DATA COLLECTION PROCEDURE:

- Data will be collected from secondary sources.

OPERATIONAL DEFINITIONS:

- Burden: Measured in terms of incidence, prevalence, mortality, and disability-adjusted life years (DALYs).
- Effectiveness: Assessed based on reduction in disease burden and improvement in healthcare outcomes.

7. DATA ANALYSIS PLAN

- Quantitative Data: Descriptive statistics, Normalization, trend analysis using MS Excel.

8. ETHICAL CONSIDERATIONS

- The study will use publicly available secondary data from reliable sources so proper permissions and acknowledgments will be ensured wherever required.
- Unbiased analysis will be ensured.
- Patient data privacy will be ensured.

9. IMPLICATIONS OF RESEARCH

- The findings will provide valuable insights to strengthen national and state-level vector control programs.
- The study will inform policy recommendations to improve surveillance, prevention, and management of vector-borne diseases.
- The outcomes can contribute to optimizing resource allocation and enhancing the effectiveness of disease control measures.

10. REFERENCES

References will be cited in Vancouver Style.