

## THE 4TH MULAWARMAN INTERNATIONAL CONFERENCE ON TROPICAL PUBLIC HEALTH (MICTOPH) 2025



## **ABSTRACT**

Title of Abstract : Narrative Review: Physical Environmental, Sociodemographic, and

Biological Factors on Dengue Fever in Children Aged 0-15 Years

Authors of Abstract : Rusna Azizah Aziz1, Blego Sedionoto1, Akhmad Azmiardi1

**Affiliation** : Others

Correspondence E-mail : rusnaazizahaziz@gmail.com

Background: Dengue Hemorrhagic Fever (DHF) is a disease with the potential for outbreaks, causing public panic due to the risk of death. Dengue fever not only concerns the public due to the transmission and resulting mortality, but also impacts the socio-economic conditions of the community and the country.

Objective: This review aims to synthesize evidence narratively regarding the relationship between physical environmental, sociodemographic, and biological factors and the incidence of dengue fever in children aged 0-<15 years.

Research Methods/ Implementation Methods: This narrative review was conducted by searching articles in the PubMed and Google Scholar databases from 2016 to 2025. The main keywords used included "Dengue Hemorrhagic Fever," "Physical Environment," "Sociodemographics," and "Biology." The criteria for articles were exposure to physical, sociodemographic, and biological environmental factors associated with the outcome of DHF in children. Other criteria were that articles were written in Indonesian or English and were full-text articles. After screening based on these criteria, 34 research articles were selected for narrative analysis.

Results: The results of a literature review of 34 articles analyzed consistently indicate that physical, sociodemographic, and biological environmental factors have a significant influence on the increase in the incidence of dengue fever. The majority of studies reported an increase in the incidence of dengue fever measured in the assessment of physical, sociodemographic, and biological environmental factors. Good physical environmental management, interventions in sociodemographic factors, and effective and efficient control of biological factors can help reduce the incidence and mortality due to dengue fever.

Conclusion/Lesson Learned: Physical, sociodemographic, and biological environmental factors are associated with dengue fever incidence in children. These findings recommend enhancing promotional and preventive efforts by increasing collaboration with Jumantik (Family Disaster Mitigation Team) cadres and other cross-sectoral organizations to optimize efforts to reduce dengue fever incidence.

Keyword : Dengue Fever; Dengue Hemorrhagic Fever; Physical Environment; Sociodemography; Biology.