

# PHYSICAL, SOCIAL, AND CULTURAL ENVIRONMENT DETERMINANTS OF FILARIASIS IN TAPANULI TENGAH, NORTH SUMATERA

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## ABSTRACT

**Background:** Lymphatic filariasis impairs the lymphatic system and can lead to the abnormal enlargement of body parts, causing pain, severe disability and social stigma. According to World Health Organization, in 2000 over 120 million people were infected, with about 40 million disfigured and incapacitated by the disease. Lymphatic filariasis can be eliminated by stopping the spread of infection through preventive chemotherapy with safe medicine combinations repeated annually for at least 5 years. More than 6.7 billion treatments have been delivered to stop the spread of infection since 2000. Tapanuli Tengah district ranked third in the incidence of filariasis in North Sumatera. The total number of filariasis cases was 22 cases. This study aimed to examine the physical, social, economic, and cultural environment determinants of filariasis in Tapanuli Tengah, North Sumatera.

**Subjects and Method:** This was a qualitative study carried out in Lumut Maju village, Tapanuli Tengah, North Sumatera. A total of 23 informants were selected for this study, consisting of filariasis patients, family members, and personnel from the health and related sectors. The dependent variable was filariasis incidence. The independent variables were physical, social, economic, and cultural environments, and the local government. The data were collected by in-depth interview, direct observation, focus group discussion, and document review. The data were analyzed by thematic analysis.

**Results:** The incidence of filariasis is determined by the interaction of host-agent-environment conditions favorable for the transmission of filariasis. The physical environment conditions in Lumut Maju village could be described as follows: (1) Several swamps; (2) Several rivers and bushes (3) Some plantations; (4) High humidity of climate. The social, economic, and cultural environment conditions could be described as follows: (1) Common habit of people to go out at night; (2) Rare use of protective work clothes; (3) Low household income; (4) Local belief in mystical things. The local government involvement was as follows: (1) Non existence of regent regulation on infectious diseases control and prevention, including filariasis; (2) Uneven distribution of health workers and health facilities.

**Conclusion:** The incidence of filariasis in Lumut Maju village, Tapanuli Tengah, North Sumatera, is closely related to the conditions of physical, social, economical, and cultural environments, as well as the local government policy.

**Keywords:** filariasis, physical, social, economical, cultural environment, local government policy.

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