

SUMMARY

The Analysis of Climate Change Effect on Dengue Haemorrhagic Fever Cases for Early Warning System Development Efforts on Banjarbaru Municipal During The Years 2001 – 2010

Dengue Haemorrhagic Fever (DHF) is a major community health issue in Indonesia often triggering outbreaks with high mortalities. All regions in Indonesia has a high risk of a DHF outbreak, only excluding regions of an altitude of over 1000 meters above sea level. Data from program's manager in the Banjarbaru municipal Health Office show that in 2010 there were 208 DHF patients with 5 of them were died.

In fact that the Banjarbaru municipal has always had an increasing number of cases with dengue disease. The increasing of DHF cass is caused many factors and one of them is climate factor. Further study the influence of climate on the incidence of dengue is very important in the prevention and dengue disease early awareness efforts. More over it can be a positive input for dengue fever control program managers, particulary in the Banjarbaru municipal Health Office and local government health centers in planning activities of dengue disease prevention and control of .

Research design used study of ecological time trend to examine the rainfall, humidity and air temperature on the incidence of dengue cases from 2001-2010 and the free number larva during 2005-2010 in areas I and II of the Banjarbaru municipal.

Path analysis showed that the rainfall, humidity, air temperature and free larvae number had influence toward insidence of DHF (27%). Dengue disease early awareness activities should been done, including: discovery and reporting of case, prevention focus (in the form of epidemiological investigations, selective abatitaton, focus fumigation, and larvae periodic Inspection.

It is recommended that the minicipal health department can improve Banjarbaru cross-sector cooperation between Meteorological and Geophysics Board (BMKG) in utilize climate data to support the successful implementation of the DHF control program. In addition, the Banjarbaru municipal health office also need to enhance and improve the quality of data recording and reporting dengue fever cases with: records and reporting in a timely manner by all units of government and private health services and increased knowledge and skills in data processing surveillance officers.

ABSTRACT**The Analysis of Climate Change Effect on Dengue Haemorrhagic Fever Cases for Early Warning System Development Efforts on Banjarbaru Municipal During The Years 2001 – 2010**

Environment, both biological and physical, are one of instrumental factor in the emerging and the spreading of dengue disease. The Climate change may causes affect to infectious disease pattern and the risk of transmission increasement. Disease of dengue hemorrhagic fever (DHF) has become endemic in the major cities in Indonesia. It has been suspected that dengue outbreaks that occur each year in almost all of Indonesia is closely related to weather patterns. The purpose of this study was to determine the influence of climate change (rainfall, humidity and air temperature) with dengue cases in the Banjarbaru municipal during the year 2001-2010. The design of the study is a over times studies of ecology. The research was conducted in April-May 2010 and located in the Banjarbaru municipal, South Kalimantan by using secondary data. Data on the number of dengue cases is derived from the reports listed in Banjarbaru Health Office. Climate data used are rainfall data, temperature and humidity obtained from the Meteorology and Geophysics Board (BMKG) Station of Banjarbaru and Syamsudin Noor Station of Banjarmasin. The results showed that rainfall, humidity, air temperature and free number larva had influence toward insidence of DHF (27%). The conclusion of this study is that the increased rainfall and humidity affected the increased in dengue cases. Therefore, it requires a good cooperation between the health department and BMKG as the party in charge for climates data. If the rainfall and humidity increasing, it can use as an early warning and alert for all sides to perform quick and proper activities within the framework.

Key words: Dengue Hemorrhagic Fever (DHF), climate change, ealy warning