Mapping Analysis of Dengue Haemorrhaege Fever (DHF) Using Geographical Factors Using Quantum GIS in Jember Regency. Septin Diah Triwardhani. NIM G41160576. Medical Record. Health. State Polytechnic of Jember. Nugroho Setyo Wibowo, ST., MT (Supervisor I).

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ABSTRACT

Dengue Haemorrhaege Fever (DHF) is a dangerous infectious disease caused by the dengue virus and spread by the Aedes Aegypty mosquito. Based on data from WHO, Indonesia is reported as the 2nd country with the largest DBD cases among 30 endemic countries. The Ministry of Health of the Republic of Indonesia reported that DBD cases in 2016-2018 had increased in 2018 with the number of cases of 65,602 and the number of deaths as many as 462 people. DBD cases in Jember Regency are ranked 8th in East Java with the number of cases in 2016 the number of dengue cases was 1,298 cases, in 2017 there were 405 cases, and in 2018 there were 389 cases. Geographical Information System is expected to be able to provide an overview to be used as material for reports and evaluations related to the spread of DBD in Jember Regency. This study aims to create a website-based digital map, analyze geographic factors and make predictions related to dengue fever in Jember Regency. This type of research is qualitative research with the RAD (Rapid Application Development) system design method approach. This study used the Quantum GIS application to create maps and MySQL as a database. The result of this study is a geographic information system in the form of a digital map that can display information on the number of DBD sufferers per district, population density, rainfall, altitude, and larvae free numbers and DBD forecasting. The map is also equipped with color gradations for the difference in the height and low of DHF cases per district. This geographic information system is expected to be used to assist health service officers in making decisions to reduce the incidence of DBD in Jember Regency.

***Keywords** : DHF, Website, Geographic Information System, Forecasting.*