

Design of a Geographic Information System for Maternal Mortality Rates in Bondowoso Regency for Health Surveillance in Bondowoso Regency

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ABSTRACT

Maternal Mortality Rate (MMR) is the death of a woman during pregnancy until 42 days after delivery, which is caused by her pregnancy or its handling but not an accident. The maternal mortality rate in Bondowoso District in 2022 was ranked 8th in East Java, and data as of May 2024 maternal mortality in Bondowoso District was already at 11 deaths, which has increased compared to the previous year, namely in 2023 with 10 deaths. Therefore, it is still necessary to increase awareness to the community regarding maternal mortality cases. This study aims to create a digital AKI distribution map. The system development method used is Waterfall by using leaflets to create maps and MySQL as a database. The result of this research is a system in the form of a website that can display a map of the distribution of maternal deaths based on risk groups with calculations using the maternal mortality formula, graphs, and report tables that are easily updated by the website administrator, and can display the distance between cases and hospitals. This geographic information system is expected to assist officers in promoting integrated health programs and educating the public to prevent maternal mortality in Bondowoso District.

Keywords: Maternal Mortality Rate, Geographic Information System, Waterfall, Website