Epidemiological Study of Dengue Fever Cases (DHF)
In the Sememi Health Center Working Area with a Geographic Information
System (GIS) Approach Geographic Information System (GIS)

Fahmi Iqbal Firmansyah1, Setiawan2, Khambali3

Ministry of Health RI
Health Polytechnic of the Ministry Health Surabaya
Environmental Health
Environmental Sanitation Study Program, Department of Environmental Health
Email: fahmiiqbalfirmansyah1@gmail.com

ABSTRACT

Dengue Hemorrhagic Fever (DHF) is an endemic disease in the Sememi Community Health Center working area. in 2021 there would been 20 cases of dengue fever with IR=20/100,000 population, in 2022 there would been 82 cases with IR=82/100,000 population, and in 2023 there would been 25 cases of dengue fever sufferers with IR=25/100,000 population. In the last 3 years, the ABJ value has been 80%. The aim of this research was to examine the epidemiology of Dengue Hemorrhagic Fever (DHF) cases in the Sememi Health Center working area.

This type of research was observational research using a cross sectional research design. The research objects were cases of dengue fever, ABJ, and rainfall. The research variables used dengue cases, ABJ, age, gender, rainfall. Data analysis used descriptive and spatial statistics. Based on research results, children aged 5-14 years were more likely to be infected with dengue, especially males, due to male factors such as rarely draining containers, so it has been identified that the ABJ value was still below the international standard of 80%, the average value Average rainfall in 2021-2023 varies greatly and the highest was in February if according to the month each year it reached (500/mm). The fluctuating average value of annual rainfall can been caused by climate change. The climate changes that occured were characterized by the daily average temperature. efforts to control Dengue Hemorrhagic Fever (DHF) in densely populated areas by the community can carry out 3M PLUS activities, namely (Draining, Burying, Covering) and also steps to eradicate mosquito larvae which aim to break the chain of transmission (DHF).

Keywords: Epidemiology, DHF, Geographic Information System (GIS).

Kajian Epidemiologi Kasus Penyakit Demam Berdarah *Dengue* (DBD) Di Wilayah Kerja Puskesmas Sememi Dengan Pendekatan Sistem Informasi Geografis (SIG)

Fahmi Iqbal Firmansyah1, Setiawan2, Khambali3

Kementerian Kesehatan RI
Politeknik Kesehatan Kemenkes Surabaya
Program Studi Sanitasi Lingkungan Jurusan Kesehatan Lingkungan
Email: fahmiiqbalfirmansyah1@gmail.com

ABSTRAK

Demam Berdarah *Dengue* (DBD) ialah penyakit endemis di daerah kerja Puskesmas Sememi. pada tahun 2021 sebanyak 17 kasus DBD dengan IR=17/100.000 penduduk, pada tahun 2022 sebanyak 82 kasus dengan IR=82/100.000 penduduk, dan 2023 sebanyak 39 kasus penederita DBD dengan IR=39/100.000 penduduk. Pada 3 tahun terakhir menunjukkan nilai ABJ nya 80% Tujuan penelitian ini adalah mengkaji epidemiologi kasus DBD di daerah kerja Puskesmas Sememi.

Jenis penelitian ini adalah penelitian observasional dengan menggunakan desain penelitian *Cross Sectional*. Objek penelitian adalah kasus DBD, ABJ, dan curah hujan. Variabel penelitian yaitu menggunakan kasus DBD, ABJ, usia, jenis kelamin, curah hujan. Analisis data memakai statistik deskriptif dan spasial.

Berdasarkan hasil penelitian, anak usia 5-14 tahun lebih mungkin terinfeksi penyakit dengue terutama pada jenis kelamin laki-laki, karena faktor laki-laki seperti jarang menguras wadah, sehingga telah diidentifikasi bahwa nilai ABJ masih dibawah standar internasional sebesar 81%, nilai rata-rata curah hujan tahun 2021-2023 sangat bervariasi,dan tertinggi adalah pada bulan Februari jika menurut bulan setiap tahunnya mencapai (500/mm). Rerata curah hujan tahunan yang fluktuatif bisa diakibatkan oleh perubahan iklim. Perubahan iklim yang jadi ditandai dengan suhu rata-rata harian. upaya pengendalian DBD di wilayah padat penduduk oleh masyarakat dapat melaksanakan kegiatan 3M PLUS meliputi (Menguras, Mengubur, Menutup) dan juga langkah pemberantasan jentik nyamuk yang bertujuan guna memutus rantai penularan (DBD).

Kata Kunci: Epidemiologi, DBD, Sistem Informasi Geografis (SIG).