

ANALISIS SPASIAL INDIKATOR ENTOMOLOGI DEMAM BERDARAH DENGUE DAERAH ENDEMIS DAN NON ENDEMIS DI KECAMATAN KOTO BESAR KABUPATEN DHARMASRAYA PROPINSI SUMATERA BARAT

INTISARI

Latar Belakang : Indonesia menempati urutan pertama kasus DBD di wilayah Asia tenggara pada tahun 2012 dengan jumlah kasus sebesar 90.245. Kasus DBD tahun 2013 di Kecamatan Koto Besar Kabupaten Dharmasraya merupakan urutan tertinggi dengan jumlah 39 kasus (IR 167,98 per 100.000 penduduk). Pengendalian terhadap kasus tersebut dilakukan dengan fogging yang dilaksanakan oleh petugas Puskesmas Koto Besar bersama Dinas Kesehatan. Sistem Informasi Geografi dipakai sebagai alat untuk menganalisis masalah kesehatan yang terkait dengan keruangan. Penelitian ini merupakan bagian surveilans vektor dimana menyediakan data tentang peta sebaran kasus DBD tahun 2013, status kerentanan *Ae.aegypti* terhadap insektisida malation dan temefos, serta peta kerawanan di Nagari Abai Siat dan Bonjol Kecamatan Koto Besar.

Tujuan : Mengetahui sebaran kasus, perbedaan indikator (HI, BI, CI, OI, *Maya Index*), perbedaan status kerentanan *Ae.aegypti* terhadap insektisida malation dan temefos, tingkat kerawanan berdasarkan *breteau index* di Nagari Abai Siat dan Bonjol.

Metode : penelitian bersifat *observasional deskriptif* guna memperoleh interpretasi visual tentang lokasi kejadian DBD, serta kondisi lingkungan mempengaruhi kejadian DBD dengan melihat indikator entomologi (HI, BI, CI, OI, *Maya Index*) serta status kerentanan *Ae.aegypti* di Nagari Abai Siat dan Bonjol.

Hasil : Sebaran kasus DBD tahun 2013 di Kecamatan Koto Besar tersebar di 4 nagari, terbanyak di Nagari Abai Siat 87,18%. Indikator entomologi di Nagari Abai Siat dengan nilai HI 74,6%, OI 57%, CI 7,3% dan BI 215,3 sedangkan di Nagari Bonjol nilai HI 45,8%, OI 32%, CI 8,7% dan BI 84,7. Terdapat perbedaan yang bermakna antara nilai OI, BI dan HI di Nagari Bonjol dan Nagari Abai Siat dengan nilai $p < 0,005$, sedangkan nilai CI tidak terdapat perbedaan yang bermakna dengan nilai $p = 0,557$. Status kerentanan *Ae.aegypti* sama pada kedua nagari yaitu resisten terhadap malation dan rentan terhadap temefos. Kerawanan Nagari Abai Siat berdasarkan BI sangat rawan dengan nilai 215,3 sementara di Nagari Bonjol nilai BI 84,7.

Kesimpulan : Sebaran kasus DBD tahun 2013 di Kecamatan Koto Besar terbanyak di Nagari Abai Siat. Indikator entomologi HI, BI dan OI lebih tinggi di Nagari Abai Siat dibandingkan Bonjol, CI pada kedua nagari tidak berbeda. Tidak terdapat perbedaan Status kerentanan terhadap insektisida malation dan temefos pada kedua nagari. Berdasarkan BI Nagari Abai Siat sangat rawan dibandingkan Bonjol.

Kata Kunci : DBD, Indikator Entomologi, Status Kerentanan

SPATIAL ANALYSIS ENTOMOLOGICAL INDICATORS of DENGUE HAEMORRHAGIC FEVER EVENT in ENDEMIC and NON ENDEMIC AREAS of KOTO BESAR SUBDISTRICT DHARMASRAYA REGENCY WEST SUMATRA PROVINCE

ABSTRACT

Background : Indonesia ranked first in Dengue Haemorrhagic Fever (DHF) cases in the Southeast Asian region in 2012 with 90,245 cases found. DHF cases found in Koto Besar Subdistrict Dharmasraya Regency in 2013 is believed to be the highest, with 39 cases (IR 167.98 per 100,000 population). Occurrence control has been made by fogging, carried out by Koto Besar Primary Health Center in cooperation with the Health Bureau. Geographic Information System is used as a tool to analyze the spatial-associated health problems. This study is part of a vector surveillance which provides data on the distribution map of dengue cases in 2013, the susceptibility status of *Ae.aegypti* to malathion and temephos, as well as vulnerability map in Nagari Abai Siat and Bonjol of Koto Besar Subdistrict.

Objectives : To understand the case distribution, the difference of indicator (HI, BI, CI, OI, Maya Index), the difference in susceptibility status of *Ae.aegypti* to malathion and temephos and the vulnerability level based on Breteau Index in Nagari Abai Siat and Bonjol.

Method : The research applies a descriptive observational study in order to obtain a visual interpretation regarding DHF occurrence site and environmental conditions influencing the incidence of dengue by focusing on entomological indicators (HI, BI, CI, OI, Maya Index), as well as the susceptibility status of *Ae.aegypti* in Nagari Abai Siat and Bonjol.

Results : The distribution of DHF cases in 2013 in the Subdistrict of Koto Besar had been spread over four villages, mostly in Nagari Abai Siat at 87.18%. Entomological indicators at Nagari Abai Siat with HI value of 74.6%, OI of 57%, CI of 7.3% and BI of 215.3, while in Nagari Bonjol the obtained results were HI value of 45.8%, OI of 32%, CI of 8.7% and BI of 84.7. There was a significant difference between the value of OI, BI and HI in Nagari Bonjol and Nagari Abai Siat with $p < 0.005$, while the value of CI showed no significant difference with $p = 0.557$. Susceptibility status of *Ae.aegypti* is similar in both villages, which showed resistance to malathion and susceptible to temephos. Vulnerability of Nagari Abai Siat based BI was classified as highly vulnerable with the value of 215.3, while in Nagari Bonjol the BI value was 84.7.

Conclusion : DHF cases distribution in 2013 in the Subdistrict of Koto Besar has been found the highest in Nagari Abai Siat. Entomological indicators of HI, BI and OI were higher in Nagari Abai Siat than those in Bonjol, while the CI value showed no difference in the two villages. There were no differences found in the susceptibility status to the insecticide malathion and temephos in both villages. Based on BI, Nagari Abai Siat is highly vulnerable compared to Bonjol.

Keywords : DHF, Entomological Indicator, Susceptibility Status