

INTISARI

Latar belakang: Demam berdarah *dengue* (DBD) merupakan prioritas pertama masalah kesehatan di Kabupaten Purbalingga. *Incidence rate* DBD 2013-2015 di atas target nasional ($>20/100.000$ penduduk), dan *case fatality rate* tahun 2016 mencapai 2%. Penggunaan insektisida oleh masyarakat telah berlangsung lama. Tujuan penelitian untuk mengetahui hubungan perilaku penggunaan insektisida dengan status kerentanan nyamuk *Aedes aegypti* dan mengetahui gambaran kerentanan nyamuk dari daerah endemis DBD di Kabupaten Purbalingga.

Metode: Penelitian *explanatory research* rancangan *cross sectional* pada Januari-April 2017 di empat desa/kelurahan endemis DBD di Kabupaten Purbalingga. Penentuan jumlah subjek penelitian berdasarkan pedoman survei entomologi DBD. Sampel dari tiap desa ditentukan dengan *purposive sampling*. Pada rumah tangga yang terpilih dilakukan pemasangan ovitrap dan wawancara menggunakan kuesioner. Gambaran status kerentanan nyamuk berdasarkan uji *bioassay* standar WHO 1998.

Hasil: Sebanyak 240 responden dilibatkan dalam penelitian. Hasil uji kerentanan nyamuk menunjukkan *Aedes aegypti* dari tiga desa/kelurahan endemis DBD (Purbalingga Lor, Penaruban, Sempor Lor) telah resisten, sedangkan nyamuk dari Kelurahan Kembaran Kulon masih toleran terhadap *cypermethrin* 0,05%. Variabel yang berhubungan dengan status kerentanan nyamuk *Aedes aegypti* adalah sikap positif responden yang menyenangi penggunaan insektisida dengan *aPR* 0,55 (95% CI 0,38-0,81), *p value* 0,002 dan perilaku responden yang menggunakan insektisida dengan *aPR* 1,22 (95% CI 1,04-1,43), *p value* 0,013.

Kesimpulan: Perilaku penggunaan insektisida yang tidak tepat berhubungan dengan meningkatnya status kerentanan nyamuk *Aedes aegypti* dan menjadi faktor risiko terjadinya resisten. Perlu penyuluhan kesehatan masyarakat tentang penggunaan insektisida, pemilihan bahan aktif, dosis, cara aplikasi dan penggantian berkala insektisida serta rotasi penggunaan insektisida menggunakan insektisida dengan *mode of action* yang berbeda.

Kata kunci: Status kerentanan, *Aedes aegypti*, insektisida, perilaku.

ABSTRACT

Background: Dengue Haemorrhagic Fever (DHF) is the first priority of health problems in Purbalingga Regency. The incidence rate of DHF in 2013-2015 was above the national target ($>20/100.000$ population), and the case fatality rate in 2016 reached 2%. Insecticides have been used by people for a long period of time. This research aims to identify the correlation between behavior towards insecticide use and susceptibility status of *Aedes aegypti* mosquito and to identify the picture of mosquito susceptibility from DHF endemic area in Purbalingga Regency.

Methods: This research belongs to an explanatory research with cross sectional design conducted from January 2017 until April 2017 in four DHF endemic villages of Purbalingga Regency. The number of research subjects was determined based on the guidelines for entomological surveillance of DHF. Samples from each village were taken using purposive sampling. Ovitrap was installed and interviews were conducted using questionnaires for selected households. Mosquito susceptibility status was described based on the results of WHO's 1998 standardized bioassay test.

Results: 240 respondents were involved in the research. The results of susceptibility test indicated that *Aedes aegypti* from three endemic villages (Purbalingga Lor, Penaruban, Sempor Lor) was resistant, while *Aedes aegypti* from Kembaran Kulon Village were tolerant to cypermethrin 0.05%. Variables correlate with susceptibility status of *Aedes aegypti* mosquito are respondents positive attitude who like to use insecticides with aPR 0.55 (95% CI 0.38-0.81), p value 0.002 and behavior towards insecticide use with aPR 1.22 (95% CI 1.04-1.43), p value 0.013.

Conclusions: Inappropriate behavior towards insecticide use correlates with the increase in susceptibility status of *Aedes aegypti* and become the risk factor for resistance. It is necessary to provide public health education about insecticide use, selection of active ingredients, dosage, mode of application and periodic replacement of insecticides and to rotate the insecticide use for programs and households through different modes of action.

Keywords: Susceptibility status, *Aedes aegypti*, insecticide, behavior.