

INTISARI

Latar Belakang : Sebaran penyakit *dengue* di dunia menyebar dengan cepat dan pesat mengikuti sebaran geografis meluas ke berbagai negara, diperkirakan 50 juta kasus *dengue* / tahun dan 2,5 miliar penduduk hidup di negara endemi *dengue*. Wisatawan berperan utama dalam penyebaran *dengue* dengan membawa berbagai macam serotype dan strain *dengue* masuk wilayah terdapat nyamuk *Aedes spp.* sehingga dapat menyebabkan infeksi *dengue*. Perjalanan internasional (perpindahan manusia, vektor pembawa penyakit, barang terkontaminasi) yang dapat menyebabkan penyebaran penyakit secara luas di atur dan diakomodasi dalam *International Health Regulations* 2005 pasal 9. Setiap negara wajib melakukan penilaian resiko *dengue* sebagai rencana pencegahan penyebaran *dengue* antar negara dengan memperkuat surveilans dan pengawasan di pintu masuk (pelabuhan laut/udara dan pos lintas batas) tiap Negara. Pelabuhan /bandara harus bebas dari serangan penularan penyakit.

Tujuan : Mendapatkan data awal sebaran habitat vektor *Aedes spp.* di Bandara Adisucipto Yogyakarta agar dapat dianalisis berdasarkan Indikator Entomologis (CI, HI, BI), Maya Indeks (MI), Ovitrap Indeks (OI) dan Indek Transmisi Transovarial (ITT).

Metode : Diskriptif analitik dengan desain studi cross sectional yaitu memetakan sebaran habitat vektor nyamuk *Aedes spp* berdasarkan Indek indikator entomologis (CI, HI, BI), Maya indeks (MI), Ovitrap Indeks (OI) dan dihubungkan dengan Keberadaan virus *dengue* (Indeks Transmisi Transovarial/ITT) di Bandara.

Hasil : *Buffer area* bandara memiliki resiko penyebaran *dengue* lebih tinggi dibandingkan *perimeter area* berdasarkan indikator entomologi *House index* (HI), *buffer area* memiliki nilai *density figure* (DF) 2 dan 4 katagori sedang, *Container index* (CI) dan *Bretau index* (BI) *perimeter area* memiliki nilai *density figure* (DF) 1 katagori rendah, *buffer area* memiliki nilai *density figure* (DF) 2 dan 4 katagori sedang. Status Maya indeks (MI) *buffer area* katagori tinggi 3 rumah (7.5%) dan 37 rumah (92.5 %) katagori sedang, *perimeter area* katagori tinggi 1 rumah (4.54%) dan 21 rumah (95.45%) katagori sedang. Ovitrap indeks (OI) *buffer area* lebih besar 32 buah (45.07%) dari pada *perimeter area* 24 buah (32.43 %). Indeks Trasmisi Transovarial (ITT) *buffer* dan *perimeter area* hampir sama yaitu 21 ekor (18.26 %) dan 11 ekor (18.97 %). Prosentase ITT lebih banyak terjadi pada nyamuk *Ae. aegypti* sebesar 20% dibanding 16.67% pada *perimeter area* dan 20.24% dibanding 16.10% pada *buffer area*. Pemeriksaan serotype virus *dengue* dengan RT-PCR di temukan serotype DENV-2 dan DENV-3 pada nyamuk *Ae. aegypti* dan *Ae. albopictus*.

Kesimpulan : *Buffer area* bandara memiliki resiko lebih tinggi sebagai tempat berkembangbiakan (*breeding site*) nyamuk *Aedes spp* dan lebih beresiko / rawan terjadi penyebaran *dengue*.

Kata kunci : Indikator entomologis, Bandara, *dengue*

ABSTRACT

Introduction : Distribution of dengue disease in the world spread quickly and rapidly following the geographical distribution extends to many countries. An estimated 50 million cases of dengue / year and 2.5 billion people living in dengue endemic countries. Travellers have a major role in the spread of dengue by transmitting various dengue serotypes and strains entrance area where the mosquito *Aedes* spp. International travel (human displacement, disease vector, contaminated items) that causes the disease spread widely in the set and accommodated in the International Health Regulations 2005 Article 9. Each country is required to conduct a risk assessment as a plan to prevent the spread of dengue hemorrhagic fever between countries by surveillance and supervision at the entrance (seaport / airport and border crossings) each State. Port / airport must be free of insect transmitted diseases.

Objective : to study how the distribution of the mosquito vector *Aedes* spp in the perimeter area and buffer area of Yogyakarta's Adisucipto Airport in order to analysis by spatial based on Entomologically analysis (CI,HI,BI) , Maya Indeks (MI), Ovitrap Indeks (OI) and transovarial transmission indeks (ITT).

Methods : The type of research is descriptive analytic by design cross sectional study that mapped the distribution of dengue virus based on entomologically indicators (CI, HI, BI), Maya indeks (MI), Ovitrap Indeks (OI) to associate Index Transmission transovarial / ITT in the perimeter area and buffer area of Yogyakarta's Adisucipto Airport.

Results :The results showed that the distribution of *Aedes* mosquito habitat in buffer area of the airport have a risk the spread of dengue higher than the perimeter area. Indicators entomologically House index (HI) in buffer area of the airport have a value density figures (DF) 2 and 4 are included in the category of medium, Container index (CI) and Bretau index (BI) in perimeter of the airport area has a value of density figures (DF) 1 including low category . The buffer area has a density value figures (DF) 2 and 4 that include the category medium. The Maya index (MI) in the buffer area that includes high category as many as 3 houses (7.5%) and 37 houses (92.5%) medium category, perimeter areas including high category as one house (4:54%) and 21 houses (95.45%) medium category. Total positive ovitrap eggs (ovitrap index) on a larger buffer area 32 items (45.07%) than the perimeter of the area are 24 items (32.43%). The transovarial trasmission indeks (ITT) indicate that the buffer area and perimeter areas have almost the same of ITT value which is 21 individuals (18:26%) in buffer and 11 individuals (18.97%) in the perimeter area. ITT percentage more prevalent in *Ae. aegypti* which is 20% compared to 16.67% at the perimeter of the area and 20:24% compared with 16:10% in the buffer area. Test results serotype of dengue virus by RT-PCR on the perimeter and buffer area airports were found serotype DENV-2 and DENV-3 in *Ae. aegypti* and *Ae. albopictus*.

Conclutions : Buffer area airport had a higher risk as a breeding sites *Aedes* spp and more risk to the spread of dengue.

Keywords : entomologically indicator, airport, dengue