

## Evaluasi Program Pengendalian Vektor dan Reservoir Penyakit di Bandara Sultan Thaha sebagai *Point of Entry*

### INTISARI

**Latar Belakang:** Penyakit tular vektor dan zoonotik masih menjadi masalah kesehatan serius secara global dan nasional. Bandara sebagai pintu masuk negara memiliki peran strategis dalam penyebaran penyakit ini, termasuk Bandara Sultan Thaha. Meskipun pengendalian telah dilakukan oleh Balai Kekejarantinaan Kesehatan Kelas II Jambi, namun infestasi vektor dan reservoir masih ditemukan di area perimeter, melebihi SBMKL dan tidak memenuhi amanat *International Health Regulations 2005*.

**Tujuan:** Mengevaluasi program pengendalian vektor dan reservoir penyakit di Bandara Sultan Thaha sebagai *point of entry* (PoE).

**Metode:** Penelitian deskriptif dengan pendekatan *convergent mixed-methods* melalui strategi triangulasi konkuren. Evaluasi dilakukan terhadap komponen *input*, proses, dan *output* secara kualitatif melalui wawancara, telusur dokumen dan observasi. Data kuantitatif diperoleh dari survei entomologi dan uji laboratorium. Deteksi dilakukan terhadap virus dengue pada nyamuk (NS-1 strip), *E. coli* dan *Salmonella* pada lalat serta kecoa (pewarnaan gram negatif dan uji oksidase), serta *Y. pestis* dan *Leptospira sp.* pada tikus (PCR). Penelitian dilaksanakan Februari–April 2025 di area perimeter Bandara Sultan Thaha.

**Hasil:** Program pengendalian telah berjalan sesuai SOP dengan dukungan sarana memadai, namun keterbatasan SDM dan lambatnya pencairan anggaran masih menjadi hambatan. Indikator entomologi belum memenuhi amanat IHR 2005 dan Permenkes No. 2/2023. Ditemukan *E. coli* pada lalat dan kecoa serta *Leptospira sp.* pada tikus, sementara virus dengue dan *Y. pestis* tidak terdeteksi.

**Kesimpulan:** Program berjalan sesuai SOP dengan sarana memadai, namun keterbatasan SDM dan indikator entomologi yang belum memenuhi standar menunjukkan potensi risiko penularan penyakit tular vektor dan zoonosis.

**Kata Kunci:** Evaluasi program, pengendalian vektor, reservoir, Bandara Sultan Thaha, PoE.

## Evaluation of the Vector and Reservoir Disease Control Programme at Sultan Thaha Airport as a Point of Entry

### ABSTRACT

**Background:** Vector-borne and zoonotic diseases remain major public health concerns both globally and nationally. Airports, as points of entry, play a strategic role in the potential spread of these diseases, including Sultan Thaha Airport. Although control efforts have been carried out by the Class II Jambi Health Quarantine Office, infestations of vectors and reservoirs persist in the perimeter area, exceeding national standards and failing to meet the requirements of the International Health Regulations 2005.

**Objective:** To evaluate the vector and reservoir control programme at Sultan Thaha Airport as a PoE.

**Methods:** A descriptive study was conducted using a convergent mixed-methods approach with a concurrent triangulation strategy. Evaluation of input, process, and output components was carried out qualitatively through interviews, document review and observation. Quantitative data were obtained from entomological surveys and laboratory examinations. Detection included dengue virus in mosquitoes (NS-1 strip), *E.coli* and *Salmonella* in flies and cockroaches (Gram-negative staining and oxidase test), and *Y. pestis* and *Leptospira* sp. in rats (PCR). The study was conducted from February to April 2025 in the perimeter area.

**Results:** The control programme was implemented in accordance with standard operating procedures and supported by adequate facilities. However, limited human resources and delays in fund disbursement posed significant obstacles. Entomological indicators did not comply with the IHR 2005 and the Ministry of Health Regulation No. 2/2023. Laboratory findings confirmed the presence of *E. coli* in flies and cockroaches and *Leptospira* sp. in rats, whereas dengue virus and *Y. pestis* were not detected.

**Conclusion:** The programme was implemented in line with established procedures and supported by adequate facilities. Nonetheless, shortages of personnel and the failure to meet entomological standards highlight the continuing risk of vector-borne and zoonotic disease transmission.

**Keywords:** programme evaluation, vector control, reservoir, Sultan Thaha Airport, PoE