

## **Rabies Outbreak In West Timor 2023-24: A Descriptive Epidemiological Study**

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Dog-mediated rabies remains a significant public health problem in developing countries as more than 99% of humans contact rabies through dog bites. In May 2023 rabies was detected in humans and dogs for the first time in West Timor in Nusa Tenggara Timor, Indonesia.

This study describes the spatial and temporal epidemiology of confirmed cases of human and canine rabies in West Timor from May 2023 to August 2024. Rabies case data were collected during the course of a routine disease outbreak investigation from the respective disease control authorities in West Timor.

For the 16-month follow up period the incidence of rabies for humans was 1.7 (95% CI 1.2 to 2.4) cases per 100,000. For dogs it was 87 (95% CI 75 to 102) cases per 100,000. The epidemic curve for canine rabies showed a propagating epidemic pattern. The epidemic curve for human rabies showed a low frequency, intermittent temporal pattern consistent with spillover from the infected dog population. There was an increased risk of additional human rabies cases within a distance of 5 kilometres and 30 days from the place of detection of a human rabies case.

Our results support findings from rabies outbreak investigations in other jurisdictions of Indonesia and other countries. Our space-time analyses guidance on the distance and time ranges for intensive surveillance and preventative measures following human rabies detections.