

# **Descriptive Epidemiology Of Foot-and-mouth Disease In Nusa Tenggara Barat, Indonesia**

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## **DESCRIPTIVE EPIDEMIOLOGY OF FOOT-AND-MOUTH DISEASE IN NUSA TENGGARA BARAT, INDONESIA**

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### **Abstract**

Introduction: After 32 years of foot-and-mouth disease (FMD) freedom without vaccination<sup>1</sup>, FMD outbreaks were reported by Indonesia on May 6, 2022<sup>2</sup> and FMD has now become endemic in the country.

Materials and methods: We provide a descriptive epidemiological analysis of FMD in Nusa Tenggara Barat (NTB) province for the period 6 May 2022 to 31 January 2023. Case report data were obtained from Indonesia's national animal health information system (iSIKHNAS). Descriptive spatial and temporal analyses were carried out to assess the spread of FMD across the province using livestock holdings (either farms or cattle owning household) as the epidemiological unit of interest.

Results: Between May 2022 and January 2023, a total of 6,477 livestock holdings were reported as FMD positive out of a population in the order of 152,000 holdings. The incidence risk of FMD was 4.2 (95% CI 4.1 to 4.4) per 100 holdings at risk. At the desa (village) level FMD incidence ranged from 0.18 to 90 per 100 holdings at risk. Cases peaked in June and July 2022

and again in October 2022. Spatio-temporal analyses showed that FMD was first detected in Lombok on 7 May 2022 and spread to the neighbouring island of Sumbawa (to the east) on 1 August 2022.

Conclusion: Descriptive epidemiological analyses of case report data, recognising issues related to data quality, provide critical insights for devising effective control strategies. Our findings underscore the importance of continuous surveillance and targeted interventions to manage and ultimately eliminate FMD from the cattle population in NTB.

## References

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