

Vanuatu Health Research Symposium
22-24 September 2021
Port Vila, Vanuatu
Hosted by the Vanuatu Medical and Dental Association



Research Summary

Submission by: Mariasua, Joanne
Position/Title: Surveillance Officer
Collaborators:
Contact email: jnjox12@gmail.com
Category (clinical/public health): Public Health
Data focus: TORBA, PENAMA, SANMA, MALAMPA, SHEFA, TAFEA

Title Review of outbreak thresholds of infectious diseases from the Syndromic Surveillance Database in Vanuatu from 2018-2021.

Abstract

Background

Vanuatu participates in the Pacific Syndromic Surveillance System (PSSS). The aim is to monitor trends and rapidly detect and respond to suspected outbreaks of infectious diseases. Outbreaks are detected when a pre-determined threshold is exceeded. The system collects data on four core syndromes: Acute Fever and Rash (AFR), Influenza-like illness (ILI), Watery Diarrhoea (WD) and Prolonged fever (PF). These syndromes are associated with outbreak-prone diseases in the Pacific. The objective of this study is to assess if the alert threshold for detection of outbreaks of infectious diseases from 2018-2021 requires review.

Methods

In Vanuatu, eleven sentinel sites participate in the PSSS. Sites were selected based on population size and geographical locations. Surveillance focal points report weekly on the four core syndromes (AFR, PF, ILI, and WD). Data from 2018-2021 were extracted from the syndromic surveillance database. The outbreak threshold for AFR, PF, ILI, and WD is 19, 38, 426 and 371, respectively. Visual inspection of the data was conducted to identify outbreaks that were below and above the pre-determined outbreak threshold.

Results

The number of ILI cases exceeded the threshold level in 2019 and no outbreaks below the threshold were observed. Cases of PF exceeded the threshold on three occasions in 2018 and 2020, and a potential outbreak below threshold was observed in 2019. The WD threshold was exceeded in 2020 and there were two potential outbreaks in 2018 where the number of cases was below the threshold. The AFR threshold was exceeded in 2021 (outbreak is ongoing) and there were two potential outbreaks in 2018 and 2019 where the number of cases was below the threshold.

Conclusion

Pre-determined thresholds should be reviewed as we identified several potential outbreaks that were not detected according to existing thresholds.