ABSTRACT

Weekly Reported Acute Respiratory Infection Cases in Kutai Kartanegara: A 2025-2026 SKDR Analysis

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Acute respiratory infection (ARI) remains an important public health concern requiring continuous surveillance. Indonesia's Early Warning, Alert and Response System (EWARS), locally known as Sistem Kewaspadaan Dini dan Respons (SKDR), provides weekly surveillance data that can be used to identify temporal changes in reported disease occurrence.

Objective: This study aimed to compare weekly reported ARI cases in Kutai Kartanegara during equivalent epidemiological weeks in 2025 and 2026 and to characterize temporal trends within each year.

Methods: An ecological time-series analysis was conducted using secondary weekly SKDR data from epidemiological weeks 1–37 in 2025 and 2026. Weekly reported case counts were summarized descriptively. Differences between corresponding epidemiological weeks were assessed using the Wilcoxon signed-rank test, while within-year temporal trends were assessed using Spearman's rank correlation.

During epidemiological weeks 1–37, 22,326 ARI cases were reported in 2025 and 36,476 in 2026, representing a 63.38% increase in reported cases. Median weekly reports increased from 549 to 933 cases. Reports were higher in 2026 than in 2025 in 36 of 37 corresponding weeks (97.3%; $p<0.001$). A strong increasing temporal trend was observed in 2025 ($\rho=0.785$; $p<0.001$), whereas the trend in 2026 was weaker and not statistically significant ($\rho=0.320$; $p=0.054$).

Conclusion: Weekly reported ARI cases were substantially higher during epidemiological weeks 1–37 of 2026 than during the corresponding period in 2025. These findings indicate changes in reported disease burden rather than incidence because population denominators were unavailable and surveillance counts may be influenced by healthcare utilization, case detection, and reporting performance.

Keyword : acute respiratory infection; EWARS; SKDR; surveillance; temporal trend