ABSTRACT

Trends in Reported Diarrhea Cases among Under-Five Children in Kahala, East Kalimantan, 2023-2026

Akhmad Tarmizi, Nur Rohmah, Annisa Nurrachmawati, Riza Hayati Ifroh,
Ratih Wirapuspita Wisnuwardani, Ida Ayu Indira Dwika Lestari

Correspondence E-mail : akhmad.tarmizi01@gmail.com

Background : Diarrhea remains an important public health concern among children under five, particularly in tropical settings. Routine surveillance data can provide information on changes in reported disease burden and support early identification of unusual temporal patterns.

Objective : This study aimed to describe temporal changes in reported diarrhea cases and case rates among children under five in the working area of Kahala Community Health Center, East Kalimantan, from 2023 to 2026.

Research Methods/ Implementation Methods : A descriptive ecological study was conducted using routine surveillance data from Kahala Community Health Center. Annual under-five population data and reported diarrhea cases were analyzed descriptively. Reported case rates per 1,000 under-five children, year-to-year percentage changes, and rate ratios were calculated. Data for 2026 were considered provisional because surveillance was ongoing.

Results : The under-five population decreased from 877 in 2023 to 813 in 2025. Reported diarrhea cases increased from 26 in 2023 to 35 in 2024 and 87 in 2025, corresponding to reported case rates of 29.6, 41.2, and 107.0 per 1,000 under-five children, respectively. Cases increased by 148.6% between 2024 and 2025, while the 2025 reported case rate was 3.61 times that in 2023. In 2026, 66 cases had been reported at the time of data extraction; this figure was not interpreted as a complete annual estimate.

Conclusion/Lesson Learned : Reported diarrhea cases and case rates increased substantially between 2023 and 2025 despite a declining under-five population, indicating an important surveillance signal. Continued monitoring using more granular temporal and environmental data is warranted to characterize subsequent patterns and potential contributing factors.

Keyword : diarrhea; under-five children; disease surveillance; temporal trend; tropical health