Notes from the Field

An Outbreak of Dengue Fever — Wuzhou City, Guangxi Zhuang Autonomous Region, China, June 2026

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Dengue fever is a rapidly spreading mosquito-borne viral infection caused by the dengue virus (DENV) (*1*), the transmission of which is influenced by precipitation (*2*). Projections indicate that up to 60% of the global population could be at risk by 2080 (*3*).

Wuzhou had two dengue outbreaks in the past five years, including 38 cases last year. This year, the first confirmed case was reported on June 11. By September 28, 1,321 local cases had been confirmed citywide, mainly in Wanxiu (826, 62.5%) and Changzhou (436, 33.0%) districts. All cases were confirmed in accordance with the Dengue Fever Diagnosis and Treatment Guidelines (2024 edition) (*4*). Sex distribution was nearly equal (52.1% male, 47.9% female); median age was 56 years (range 1–94), and 43.5% were aged ≥60 years. Many cases lived in self-built houses amid abundant vegetation and vacant properties. Another 32 exported cases epidemiologically linked to Wuzhou were reported elsewhere.

Based on symptom onset, the epidemic had three phases: occult sporadic transmission (June 11–30: 0–10 cases/day, mostly in the index case's community), rapid growth (July 1–31), and decline (August 1–September 28) (Figure 1). The growth phase comprised two waves, averaging 24 cases/day (July 1–14) and 27 cases/day (July 15–31); during the decline phase, daily cases gradually fell below five.

A large majority (84.6%) of cases were detected through self-initiated medical consultation, whereas the remaining 15.4% were identified via active screening. Median time from symptom onset to diagnosis was 1 day (range 0–14). All cases were mild, with no deaths. Fever was the predominant manifestation (86.6%, 1,144/1,321), followed by arthralgia (39.2%, 518/1,321) and rash (9.3%, 123/1,321). Phylogenetic analysis of 47 whole-genome sequences revealed that all isolates belonged to the DENV-1 I_K.2 lineage, which has circulated in southeastern coastal China (*5*).

In Wuzhou, persistent rainfall expanded mosquito breeding sites and constrained insecticide spraying. Dengue control was challenged by the subtropical climate, high rainfall, and hilly topography crisscrossed by rivers. The old urban districts, mostly on hillsides, are populated primarily by older adults and contain many vacant houses. Delayed multi-departmental response and insufficient emergency vector-control resources in the early phase of the epidemic were key factors driving spread.

To control the epidemic, the authorities activated a Level-3 emergency response. Antigen surveillance was implemented at all medical facilities and private clinics, and pharmacy purchases of antipyretic-analgesic drugs were monitored. Authorities mobilized resources for vegetation pruning, standing-water elimination, and adulticide spraying in high-risk settings, including residential communities, urban villages, markets, and parks. Based on vector surveillance results, core areas were identified for targeted adulticide spraying.

Although the outbreak was brought under control, it has not ended, and further spread or resurgence remains possible because of the persistently high temperatures in Wuzhou. This study has two main limitations. First, reliance on passive surveillance may have resulted in underreporting of cases. Second, because this was an interim descriptive analysis, the effects of meteorological and vector-related factors on the epidemic have not yet been quantified.

Conflicts of interest: No conflicts of interest.

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Ethical statement: Ethical approval was not required because the activities described in this report were carried out as part of routine public health surveillance and outbreak response.

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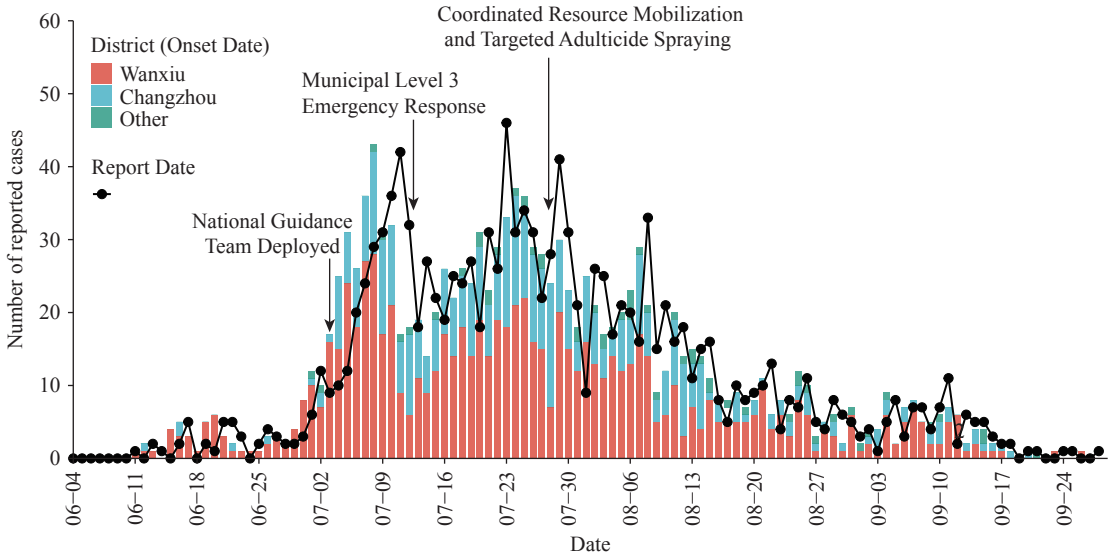


FIGURE 1. Epidemic curve of locally confirmed cases of dengue in Wuzhou City, Guangxi Zhuang Autonomous Region, China, June to September, 2026.
Note: Cases by report date are plotted as a line graph, while cases by onset date are shown in bar charts. The red, blue, and green bars represent cases from Wanxiu, Changzhou, and other districts, respectively.

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