

Dengue cases in S'pore hit 7-year low in 2025 amid global decrease

Likely reasons include Project Wolbachia and growing herd immunity, say experts

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Dengue cases in Singapore are at their lowest in seven years, with about 4,000 cases recorded so far in 2025, according to data from the National Environment Agency (NEA).

There were 3,990 cases of dengue reported here as at Dec 26 – a drop of about 70 per cent from the 13,651 cases seen in 2024.

This is the lowest number of cases seen here since 2018, when 3,282 cases were recorded.

There have been four deaths from the disease reported so far in 2025, compared with 17 in 2024.

In May, NEA attributed the lower number of dengue cases in part to efforts such as Project Wolbachia – an initiative to control the Aedes mosquito population here through the release of lab-grown male mosquitoes infected with the Wolbachia bacteria.

Project Wolbachia has “very likely” contributed to the decline in dengue numbers in 2025, said Professor Hsu Li Yang, vice-dean of global health at the NUS Saw Swee Hock School of Public Health.

He noted that the initiative, which now covers more than 580,000 households, has been scaled up quite substantially over the past year.

However, Prof Hsu added that it is difficult to judge how much of a role the project has played, given how wildly case numbers have fluctuated in recent years.

Dengue cases here hit a record high of 35,315 in 2020, before falling to 5,258 the following year. In 2022, the number of infections rose again to 32,325, then decreased to 9,949 in 2023.

Project Wolbachia’s contribution to lowering dengue numbers here is likely to become clearer over the next two to three years, he said.

The initiative aims to cover 800,000 households, or about half of all households here, by 2026.

Infectious diseases expert Paul Tambyah said the most likely reason for the dramatic drop is growing herd immunity – when enough people are immune to a disease such that it no longer spreads easily – to currently circulating strains of dengue.

However, Prof Tambyah warned that the downward trend in dengue cases in Singapore may not continue in the coming years should another serotype become more common.

“An almost identical decline in dengue cases in Singapore was last noted in 2017 when there was a 78.9 per cent drop in the number of dengue cases, from 13,085 cases in 2016 to 2,767 cases in 2017,” said the immediate past president of the International Society for Infectious Diseases.

The Den-2 serotype, or strain, of dengue has accounted for most infections here since mid-2023, and was also responsible for most dengue cases here in both 2016 and 2017.

The Republic’s decrease in dengue infections comes amid a fall in dengue cases globally in 2025, with about five million dengue cases worldwide as at early December, according to statistics from the European Centre for Disease Prevention and Control.

This is down from about 14 million dengue cases in 2024.

Globally, about 3,000 people have died of dengue-related causes in 2025, compared with about 9,500 such deaths the year before.

With an increase in travel following the Covid-19 pandemic, dengue trends in most countries are likely to be similar, said Professor Tambyah.

Research has pointed to people travelling to dengue-infected regions and then returning to their home countries as a potential reason for the disease’s emergence in new areas.

Prof Tambyah noted that across the region, countries such as Malaysia recorded similar declines in dengue numbers.

On Dec 16, Malaysian Health Minister Dzulkefly Ahmad said dengue cases in the country fell by 56 per cent to 51,046 in 2025, compared with 118,291 cases in 2024, amid dengue prevention efforts.

Prof Hsu said efforts in other countries to keep dengue in check have also borne fruit, such as in Brazil, where the number of cases fell to 1.6 million in 2025, from 6.4 million in 2024.

This decrease was in large part a result of efforts to curb the mosquito population there as well as national dengue vaccination campaigns, he said.

However, Prof Tambyah warned that the downward trend in dengue cases in Singapore may not continue in the coming years should another serotype become more common.

An article published in 2022 by the National Centre for Infectious Diseases noted that the 2020 surge in dengue cases was driven by an increase in the Den-3 and Den-4 dengue serotypes.

Neither strain had infected large numbers here previously, and thus more people were susceptible to infection, the article noted.

While Den-2 remains the predominant dengue serotype in Singapore, the number of Den-3 cases is increasing, according to NEA data, Prof Tambyah said.