Global Dengue Epidemiological Situation

Dr Martina McMenamin Epi Lead G3-dengue emergency, WHO Health Emergencies Programme

13 June 2024



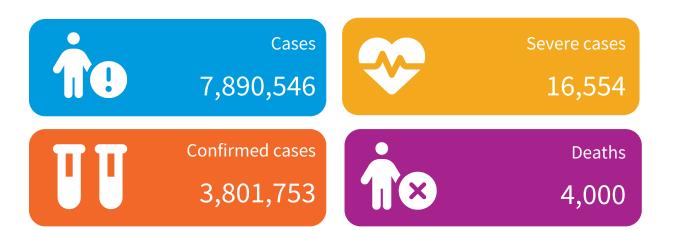
Global overview

January to April 2024

- 7,890,546 cases and 4,000 deaths reported to WHO from 79 countries by end of April 2024
- 161 countries or territories captured in the surveillance system, 82 of which are zero reporting for 2024
- The surveillance system in regions outside of the Americas is still under development so comparisons should not be made
- Other countries will be added as data become available
- Case definitions and ascertainment vary substantially between countries

WHO Global Dengue Surveillance Dashboard: https://worldhealthorg.shinyapps.io/dengue_global/



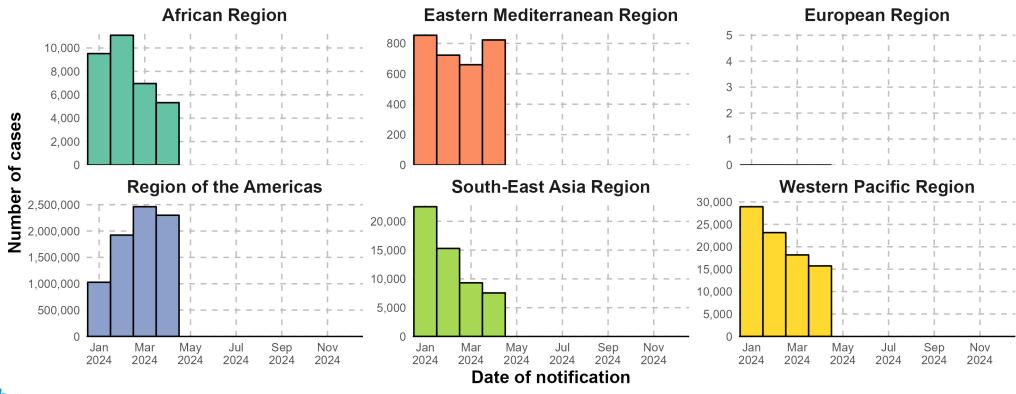


WHO region	Cases	Deaths
African Region	32,895	49
Eastern Mediterranean Region	3,060	2
European Region	0	0
Region of the Americas	7,713,869	3,829
South-East Asia Region	54,713	58
Western Pacific Region	86,009	62

Regional trends in reported cases - 2024

January to April 2024; note different y-axis scales

Typical peak dengue transmission season is now over for 2024 in highest burden subregions of the Americas, however many regions and subregions experience peak transmission in the latter part of the year, when trends are expected to increase

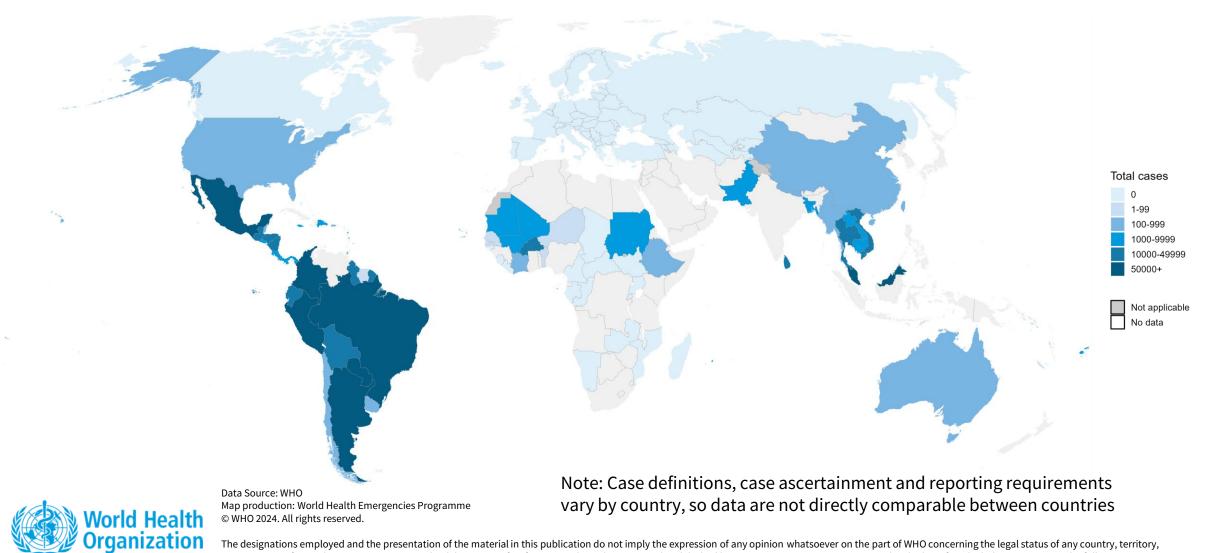




Note: Case definitions, case ascertainment and reporting requirements vary by country, so data are not directly comparable between countries

Geographical spread of reported cases

January to April 2024



The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Highest incidence countries or territories in 2024 January – April 2024

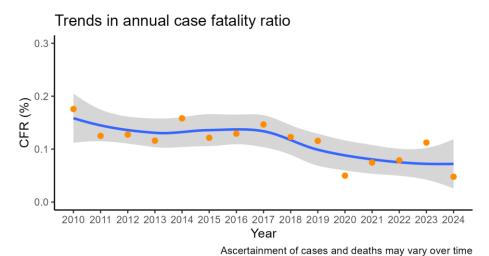
Country	WHO region	Cases per 100k	Cases	Confirmed cases	Severe cases	Deaths	CFR
French Guiana	Americas	4,189.2	12,819	8,044	0	5	0.039%
Paraguay	Americas	3,411.0	257,667	33,548	0	82	0.032%
Brazil	Americas	2,942.4	6,296,795	3,040,736	4,015	2,846	0.045%
Saint Barthélemy	Americas	1,728.6	121	0	0	0	0%
Guyana	Americas	1,600.7	12,646	3,070	0	1	0.008%
Saint Martin (French part)	Americas	1,421.1	469	0	0	0	0%
Martinique	Americas	1,370.7	5,140	0	0	0	0%
Argentina	Americas	922.7	420,867	154,761	722	291	0.069%
Guadeloupe	Americas	834.9	3,340	0	0	0	0%
Sao Tome and Principe	African	818.0	1,868	17	1	0	0%

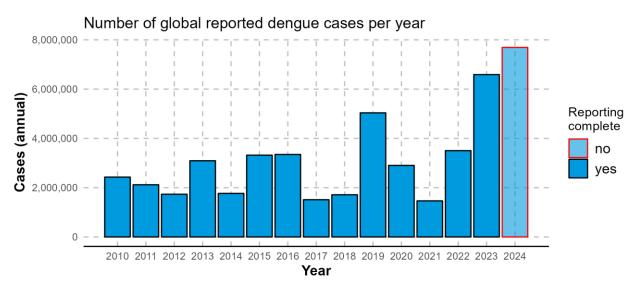


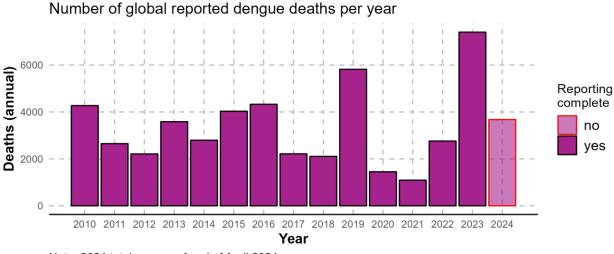
<u>Note</u>: The surveillance system in regions outside of the Americas is still under development and regions experience peak dengue seasons at different times of the year - data should be interpreted accordingly

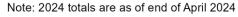
Global dengue annual trends

- Reported cases and deaths have been increasing since
 2021, with 2023 previously recording the highest number
- Total cases reported from January to April 2024 have already surpassed annual total in 2023
- CFR has been gradually decreasing over time, though this may be an artefact of changing surveillance







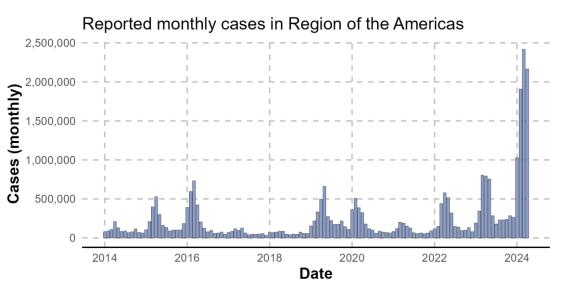


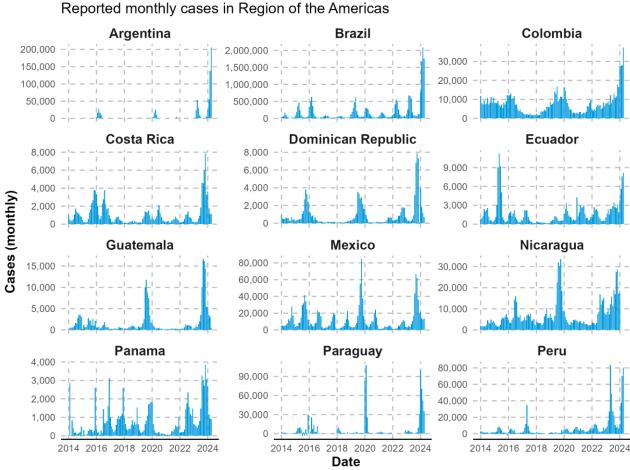


Note: Case definitions, case ascertainment and reporting requirements vary by country, so data are not directly comparable between countries

Historical context: Region of the Americas

- Although dengue is endemic in many countries, 2024
 has already seen the highest recorded transmission
- Several countries, in addition to Brazil, have experienced their largest recorded incidence



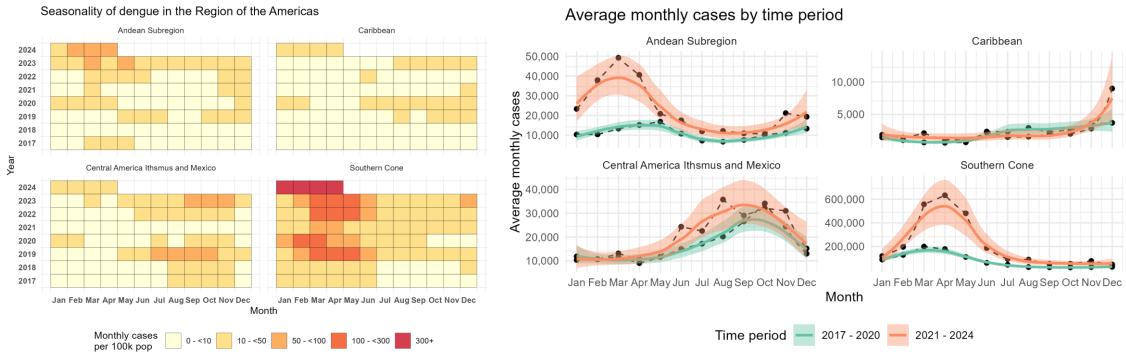




Note: Case definitions, case ascertainment and reporting requirements vary by country, so data are not directly comparable between countries

Changes in seasonality over time: Region of the Americas

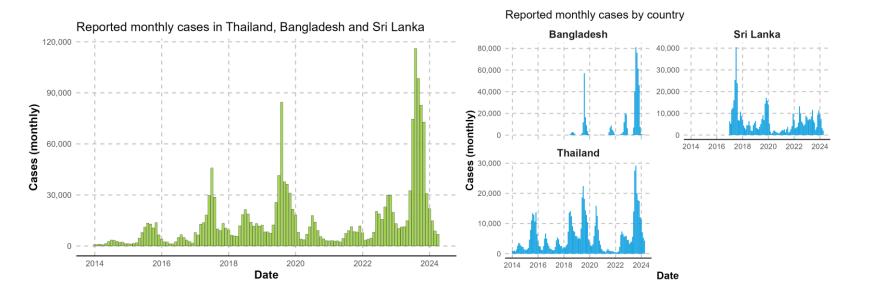
- Comparing average incidence in 2021 2024 with 2017-2020 indicates a much higher incidence during peak season in recent years, in particular in the Southern Cone and Andean subregions
- The average peak dengue season tends to last longer in recent years, particularly in the Southern Cone and Caribbean subregions
- Some of the observed trend may be due to changes in surveillance systems over time and patterns vary at a country level



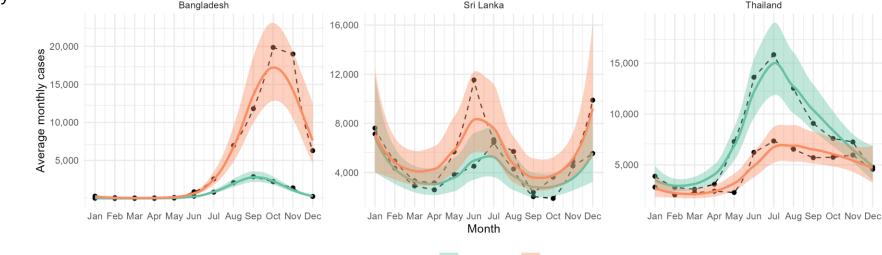


South-East Asia: Focus on Bangladesh, Thailand, Sri Lanka

- The 2023 season in the region was the largest recorded, driven primarily by surges in cases in Bangladesh and Thailand
- Peak transmission season across Bangladesh and Thailand typically occurs in the latter half of the year; two peak seasons in Sri Lanka
- Substantial variation in trends in season incidence, duration and timing at a country level

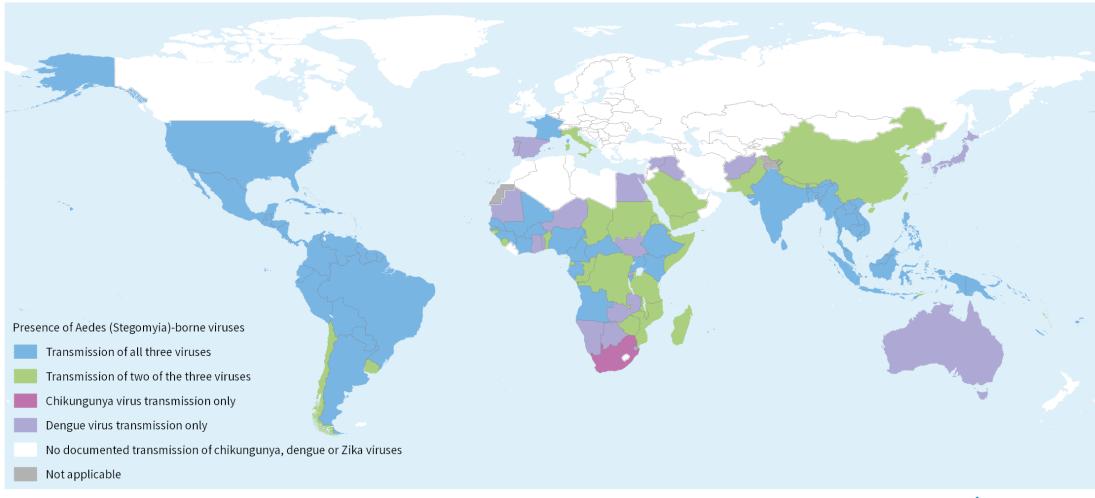








Countries and territories with current or previous transmission of chikungunya, dengue or Zika viruses (as of 30 April 2024)



The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization 0 1,500 3
Map Production: WHO Health Emergencies Programme
Map Date: 29 May 2024



Summary and next steps

- 7.9 million cases and 4,000 deaths recorded globally from 79 countries between January and April 2024
- Cases recorded by end of April have already exceeded the total of **6.6 million cases** reported **globally in 2023**, with several regions and subregions due to experience typically transmission season in the second half of the year
- **Global monthly surveillance** for dengue has been established with **161 countries** so far incorporated, 82 of which have recorded no cases January-April 2024
- Work is underway to expand WHO global dengue surveillance system to include other arboviruses, namely **Zika** and **chikungunya** given the cocirculation of these, and possible misdiagnosis, in many countries
- Historical data is not routinely available across all countries or regions. In the Region of the Americas, there is some evidence of **longer and higher incidence seasons** in recent years in endemic countries, however this varies substantially by country and subregion
- WHO Global Dengue Surveillance Dashboard: https://worldhealthorg.shinyapps.io/dengue_global/



Acknowledgements

WHO IMST G3-dengue emergency
WHO Regional and Country Offices and Member States
Ministries of Health
WHO dengue and arbovirus technical teams

