

## WEEKLY BULLETIN

# Communicable Disease Threats Report

Week 4, 21–27 January 2024

## This week's topics

1. Overview of respiratory virus epidemiology in the EU/EEA
2. SARS-CoV-2 variant classification
3. Influenza A(H5N1) - Multi-country (World) - Monitoring human cases
4. Cholera – Multi-country (World) – Monitoring global outbreaks
5. Chikungunya and dengue – Multi-country (World) – Monitoring global outbreaks
6. Increase in number of Zika cases in Thailand in 2023

## Executive Summary

### Overview of respiratory virus epidemiology in the EU/EEA

- At the end of week 3 (ending 21 January 2024), rates of respiratory illness (influenza-like illness (ILI) and/or acute respiratory infection (ARI)) in the community remained elevated and at levels above baseline (based on moving epidemic method (MEM) thresholds) in most EU/EEA countries. Rates of severe acute respiratory infection (SARI) cases presenting to sentinel secondary care remained at levels comparable with those for the same period last year.
- Seasonal influenza was circulating at higher levels than SARS-CoV-2 and respiratory syncytial virus (RSV). All indicators pointed to continued high influenza activity (all reporting countries were above the 10% sentinel primary care positivity threshold, and the majority of reporting countries observed above-baseline levels of intensity, widespread geographic spread and above-baseline ILI MEM threshold), driven predominantly by A(H1)pdm09. Sentinel weekly test positivity showed both declining and increasing trends at country level. SARS-CoV-2 showed decreasing or stable trends in all countries, and RSV was declining in most countries.

### SARS-CoV-2 variant classification

The variant landscape in EU/EEA is clearly dominated by **BA.2.86**, which was classified as a variant of interest (VOI) on 24 November 2023. The increasing trends consistently observed in recent months appear to have levelled off in December 2023. As of 22 January 2024, the median proportion for BA.2.86 in the EU/EEA for week 1 (1 January 2024 to 7 January 2024) is 86.4% (range: 66.4–96.1%).

A large proportion of the BA.2.86 sequences belong to the sub-lineage **JN.1**. As of 19 December 2023, due to its rapid increase in proportion, [WHO classified JN.1](#) as a separate VOI from the parent lineage BA.2.86. The most probable driver of the success of BA.2.86-descendant lineages is immune escape in a population where immunity is increasingly derived from XBB-variants.

**XBB.1.5-like+F456L** lineages are circulating with a median proportion of 8.9% in EU/EEA countries (range: 2.5–25.4%). The overall proportion of XBB.1.5-like+F456L variants is declining in the EU/EEA.

**XBB.1.5-like+L455F+F456L** variants show a declining trend in the EU/EEA, with a median proportion of 6.8% (range: 1.5–14.7%).

Other **XBB.1.5-like** lineages are circulating in very low proportions and are declining in the EU/EEA, with a median proportion of 1.2% (range: 0.0–5.1%).

### **Influenza A(H5N1) - Multi-country (World) - Monitoring human cases**

#### **Summary**

- The Cambodian Ministry of Health has reported one new human case of avian influenza A(H5N1) infection. The case is a three-year-old boy from Prey Veng province. Ten days earlier, dead poultry was reported in the residential area where the boy lived.
- To date, no human-to-human transmission has been reported associated with this event.
- The clade of the virus is not reported for this case. In Cambodia, clade 2.3.2.1c viruses have been circulating, causing human cases earlier in 2023.
- ECDC's risk assessment remains unchanged. Clade 2.3.2.1c viruses are not present in Europe.
- Worldwide, 883 human cases of avian influenza A(H5N1), including 461 deaths (CFR: 52%), have been reported in 23 countries since 2004.
- The risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to be low. The risk to occupationally exposed groups, such as cullers, has been assessed as low-to-medium.

### **Cholera – Multi-country (World) – Monitoring global outbreaks**

- In December 2023, 50 540 new cholera cases, including 483 new deaths, have been reported worldwide.
- New cases have been reported from Afghanistan, Dominican Republic, Burundi, Cameroon, Congo, Democratic Republic of the Congo, Ethiopia, Kenya, Malawi, Mozambique, Somalia, Sudan, Syria, Togo, Zambia and Zimbabwe.
- In recent months, cholera cases have continued to be reported in western, eastern and southern parts of Africa, some parts of the Middle East, South-East Asia and the Americas. The risk of cholera infection in travellers visiting these countries remains low, even though sporadic importation of cases to the EU/EEA remains possible.

### **Chikungunya and dengue – Multi-country (World) – Monitoring global outbreaks**

- In 2023, approximately 500 000 chikungunya virus disease (CHIKVD) cases and over 400 deaths were reported worldwide. A total of 26 countries reported CHIKVD cases from the Americas (16), Africa (5) and Asia (5).
- No autochthonous cases of CHIKVD were reported in Europe in 2023.
- In 2023 and until the beginning of December, over six million cases and over 6 000 dengue-related deaths had been reported globally.
- In 2023, 128 autochthonous/non-travel associated dengue cases were reported in Europe from [Italy](#) (82) [France](#) (43) and [Spain](#) (3).
- The current likelihood of local transmission events of chikungunya and dengue viruses occurring in areas where the vector is present in mainland EU/EEA is very low, as the environmental conditions are unfavourable for vector activity and virus replication in vectors.

### **Increase in number of Zika cases in Thailand in 2023**

- Following media reports of an increased incidence of Zika virus infections in Thailand in 2023, an EpiPulse inquiry was launched to assess the potential increase in Zika cases imported from Thailand in 2023.
- Six EU/EEA countries reported 23 cases with disease onset, notification, or exposure in 2023 on EpiPulse: Germany (10, including two cases with a date of onset in December 2022), France (9), Portugal (2), Ireland (1), Belgium (1), and Greece (0). Additionally, Czechia reported two cases imported from Thailand to TESSy for 2023.
- The detection of a relatively high number of imported cases within the last few months probably signals ongoing transmission of Zika virus in Thailand.

# 1. Overview of respiratory virus epidemiology in the EU/EEA

## Overview

### Respiratory virus activity

- Consultation rates of patients presenting to general practitioners with respiratory illness (ILI and/or ARI) were reported by 22 EU/EEA countries up to week 3. Moving epidemic method (MEM) thresholds were provided by eight countries for ARI and 19 countries for ILI. Most EU/EEA countries report activity above baseline in at least one indicator: for ARI, four countries reported baseline, one reported low, two reported medium and one reported high activity; for ILI, four countries reported baseline, eight countries reported low activity and seven reported medium activity.
- Among 20 countries that reported data on testing in primary care sentinel settings for seasonal influenza, RSV and/or SARS-CoV-2, the median test positivity at the EU/EEA level was highest for influenza at 31% (pooled country data: 35%; IQR of country values: 27–42%). All countries reported seasonal influenza activity above the 10% positivity threshold in sentinel primary care. Of 24 countries that reported qualitative assessments of seasonal influenza activity, 23 reported levels above baseline, including five with high activity. Nineteen of 24 countries reported widespread geographical spread of seasonal influenza. A mixed picture of both increasing and decreasing trends was reported by the different countries through sentinel and non-sentinel sources.
- Among the 1 149 sentinel primary care detections of seasonal influenza, 1 116 (97%) were typed as influenza virus type A, 30 were typed as influenza virus type B (3%) and three influenza viruses remained untyped. Of the influenza type A detections, 874 (78%) were further subtyped as either A(H1N1)pdm09 (n=664, 76%) or A(H3) (n=210, 24%). Ten of the influenza type B detections were further defined as B/Victoria lineage, while the remaining 20 were of unknown lineage. Similar distributions of influenza types and subtypes were observed in the samples from non-sentinel sources.
- Eighteen countries reported sentinel primary care data for SARS-CoV-2, with a median test positivity of 5% (pooled country data: 7%; IQR of country values: 2–8%). Following an increase in the pooled SARS-CoV-2 positivity from week 44 to week 49, the trend has been decreasing. Both primary care sentinel and non-sentinel data at the national level show decreasing or stable trends in all countries reporting data to week 3.
- RSV detections in sentinel primary care were reported by 17 countries and median test positivity decreased to 4%, while the pooled value has levelled off (pooled: 7%; IQR: 3–12%) in the past two weeks, driven by a mixture of increasing and decreasing country trends. Non-sentinel data from 18 countries suggest an overall decreasing trend.

### Severe disease

- Based on syndromic sentinel secondary care data from six countries, rates of severe acute respiratory infection (SARI) cases in week 3 were comparable to those for the same period last year.
- Median test positivity for seasonal influenza for SARI cases was 23% (pooled test positivity: 27%; IQR of country values: 12–296%) based on data from five countries. The highest positivity (pooled test positivity 45%) this week was observed in people aged 5–14 years, driven mainly by data from Germany and Spain.
- RSV tests among SARI cases were reported by five countries in week 3, with a median test positivity of 10% (pooled test positivity: 12%; IQR of country values: 2–11%). The highest test positivity was observed in the age group 0–4 years (pooled test positivity: 52%). Non-sentinel RSV hospital admissions among 0–4-year-olds continued to show a decreasing trend that began in week 52, 2023.
- Pooled SARS-CoV-2 test positivity in SARI cases continued to decrease in recent weeks (7% for week 3; median positivity: 7%, IQR of country values: 3–7%). Overall, rates for non-sentinel hospital admissions, ICU admissions and deaths have gradually decreased since week 50, with generally comparable trends across countries.
- [EuroMOMO](#) pooled estimates of weekly excess all-cause mortality showed 'substantial elevated levels of mortality overall and in the age groups above 45 years'.

### Virus characterisation

#### Influenza

WHO recommends that trivalent vaccines for use in the 2023–2024 influenza season in the northern hemisphere contain the following (egg-based and cell culture or recombinant-based vaccines respectively): an A/Victoria/4897/2022 or A/Wisconsin/67/2022 (H1N1)pdm09-like virus (subclade 5a.2a.1); an A/Darwin/9/2021 or A/Darwin/6/2021 (H3N2)-like virus (clade 2a); and a B/Austria/1359417/2021 (B/Victoria lineage)-like virus (subclade V1A.3a.2).

During weeks 40/2023–03/2024, 990 A(H1)pdm09, 395 A(H3) and 39 B/Victoria viruses from sentinel and non-sentinel sources were genetically characterised. Of the A(H1)pdm09 viruses that have been assigned to a clade, 490 were reported as clade 5a.2a and 493 were subclade 5a.2a.1. Of the A(H3) viruses that have been assigned to a clade, five were reported as clade 2a.3a and 387 were subclade 2a.3a.1. All of the 39 B/Victoria viruses were reported as subclade V1A.3a.2.

### **SARS-CoV-2 variants for weeks 1–2 (1–14 January 2024)**

The estimated distribution (median and IQR of proportions from 12 countries) of variants of concern (VOCs) or variants of interest (VOIs) was 87% (85–89%) for BA.2.86 (which includes JN.1 isolates), 9% (7–12%) for XBB.1.5+F456L, 0.9% (0.2–3%) for XBB.1.5-like, and 0% (0–0%) for BA.2.75. The proportion of BA.2.86 continues to grow, with XBB.1.5-like+F456L and XBB.1.5 showing decreasing trends.

### **Period overview (week 25, 2023– week 2, 2024)**

Following relatively low respiratory illness activity over the summer period, consultation rates increased in primary care settings from September. Transmission of SARS-CoV-2 began increasing in late summer, with clear increases observed at the EU/EEA level up to week 49 and decreases in activity thereafter. COVID-19 predominantly had an impact on individuals aged 65 years and above. Week 50 marked the start of the seasonal influenza epidemic. Activity remains high, with a mixed picture in trends for sentinel weekly test positivity at country level. Severe disease due to influenza has mainly affected people aged 15 years and above. Both influenza type A and type B viruses have been detected, with a dominance of A(H1)pdm09 viruses in most countries, and A(H3) also dominant or co-dominant in a small number of countries. RSV activity began increasing around week 41, reaching a peak in week 50 followed by a decreasing trend, although in recent weeks a mixed epidemiological picture has been observed, with increasing and decreasing trends at the national level. RSV continues to have the greatest impact among children aged 0–4 years.

### **ECDC assessment**

Seasonal influenza was circulating at higher levels than SARS-CoV-2 and respiratory syncytial virus (RSV). All indicators pointed to continued high influenza activity (all reporting countries were above the 10% sentinel primary care positivity threshold, and the majority of reporting countries observed above-baseline levels of intensity, widespread geographic spread and above-baseline ILI MEM threshold), driven predominantly by A(H1)pdm09. Sentinel weekly test positivity showed both declining and increasing trends at country level. SARS-CoV-2 showed decreasing or stable trends in all countries, and RSV was declining in most countries.

### **Actions**

ECDC monitors rates of respiratory illness presentation and respiratory virus activity in the EU/EEA, presenting findings in the European Respiratory Virus Surveillance Summary ([ERVISS.org](https://er viss.org)). Updated weekly, ERVISS describes the epidemiological and virological situation for respiratory virus infections across the EU/EEA and follows the principles of integrated respiratory virus surveillance outlined in [Operational considerations for respiratory virus surveillance in Europe](#).

ECDC has published an [epidemiological update](#) that describes the epidemiological situation of acute respiratory infections in EU/EEA countries and provides updated ECDC recommendations for mitigating their impact.

ECDC has published guidance on [vaccination roll-out for autumn/winter 2023](#), which stresses the importance of influenza and COVID-19 vaccination to protect individuals at increased risk of severe disease, e.g. people aged over 60 years and other vulnerable individuals (such as those with underlying comorbidities), irrespective of age.

**Sources:** [ERVISS](#)

**Last time this event was included in the Weekly CDTR:** 19 January 2024.

## 2. SARS-CoV-2 variant classification

### Overview

#### Weekly update on SARS-CoV-2 variants

The variant landscape in EU/EEA is clearly dominated by **BA.2.86**, which was classified as a variant of interest (VOI) on 24 November 2023. The increasing trends consistently observed in recent months appear to have levelled off in December 2023. As of 22 January 2024, the median proportion for BA.2.86 in the EU/EEA for week 1 (1 January 2024 to 7 January 2024) is 86.4% (range: 66.4–96.1%). Among the 13 EU/EEA countries reporting at least 20 sequences to GISAID EpiCoV for week 1, the proportions of BA.2.86 lineages were as follows: Austria (88.4%), Belgium (83.3%), Denmark (94.7%), France (94.6%), Ireland (82.2%), Italy (78.7%), Netherlands (91.9%), Norway (100.0%), Poland (69.7%), Portugal (100.0%), Slovenia (64.4%), Spain (96.1%) and Sweden (84.5%).

A large proportion of the BA.2.86 sequences belong to the sub-lineage **JN.1**. As of 19 December 2023, due to its rapid increase in proportion, [WHO classified](#) JN.1 as a separate VOI from the parent lineage BA.2.86. The most probable driver of the success of BA.2.86-descendant lineages is immune escape in a population where immunity is increasingly derived from XBB-variants.

As of 22 January 2024, and for week 1 2024, **XBB.1.5-like+F456L** lineages are circulating with a median proportion of 8.9% in EU/EEA countries (range: 2.5–25.4%). The overall proportion of XBB.1.5-like+F456L variants is declining in the EU/EEA.

**XBB.1.5-like+L455F+F456L** variants show a declining trend in the EU/EEA, with a median proportion of 6.8% (range: 1.5–14.7%). Virtually all the lineages are already included in the existing VOIs XBB.1.5-like+F456L, but those carrying L455F are being monitored specifically as this VUM.

Other **XBB.1.5-like** lineages are circulating in very low proportions and are declining in the EU/EEA, with a median proportion of 1.2% (range: 0.0–5.1%).

For the latest information on variants, please see ECDC's [webpage on variants](#).

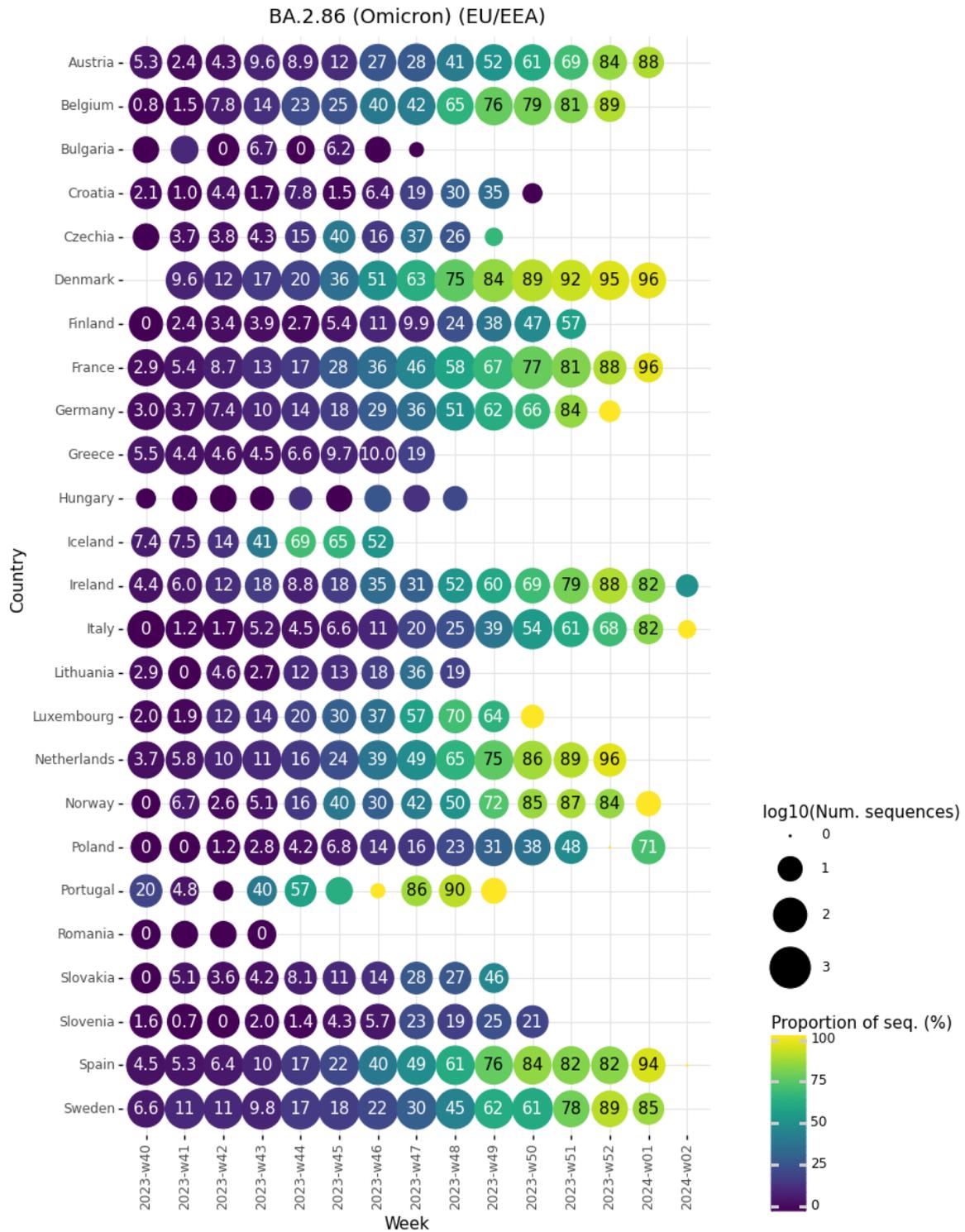
### Actions

For the latest update on SARS-CoV-2 variant classifications, please see [ECDC's webpage on variants](#). Variant surveillance data, including the distribution of VOC and VOI variant proportions in the EU/EEA, and detailed country-specific COVID-19 updates are available as part of the [European Respiratory Virus Surveillance Summary \(ERVISS\)](#).

**Last time this event was included in the Weekly CDTR:** 19 January 2024.

## Maps and graphs

**Figure 1. Proportion of sequences belonging to BA.2.86 lineages per sample collection week, reported by EU/EEA countries to GISAID EpiCoV as of 15 January 2024**



## 3. Influenza A(H5N1) - Multi-country (World) - Monitoring human cases

### Overview

**Update:** on 25 January 2024, one new human case of avian influenza A(H5N1) infection was reported in Cambodia by the [Ministry of Health](#). The case is a three-year-old boy from Ta Bruy village, Prek Poun commune, Kampong Trabek district, Prey Veng province.

Contact tracing and laboratory investigation are ongoing and close contacts have received antiviral treatment (Tamiflu). According to media, ten days before this event, dead poultry was observed in a residential area close to the case. To date, there is no information on the clade of the virus related to this case.

Previously, virus clade 2.3.2.1c was identified in human cases reported in 2023 in Cambodia (GISAID EPI\_ISL\_18540514).

This is the first case reported in Cambodia in 2024. Overall, six cases, including three deaths, due to A(H5N1) were reported in Cambodia in 2023: two cases were reported in February, two in October and two in November. Since 2005, Cambodia has reported 63 cases of avian influenza A(H5N1) infection, including 40 deaths (CFR: 64%).

### Summary

As of 26 January 2024, there have been 883 human cases\* worldwide, including 461 deaths (case-fatality rate: 52%) of human infection with avian influenza A(H5N1) reported in 23 countries since 2004. To date, no human-to-human transmission has been detected.

*\*Note: includes six detections due to suspected environmental contamination and no evidence of infection reported in 2022 from Spain (2) and the United States (1) and in 2023 from the United Kingdom (3).*

**Sources:** [media report](#), [report on Facebook account of the MoH of Cambodia](#), [ECDC Avian influenza](#), [ECDC Avian influenza overview: Latest situation update of the avian influenza in the EU/EEA](#)

### ECDC assessment

Sporadic human cases of different avian influenza A(H5Nx) subtypes have previously been reported globally. Current epidemiological and virological evidence suggests that A(H5N1) viruses remain avian-like. Transmission to humans remains a rare event and no sustained transmission between humans has been observed.

Overall, the risk of zoonotic influenza transmission to the general public in EU/EEA countries is considered to be low. The risk to occupationally-exposed groups, such as cullers, has been assessed as low-to-medium. Direct contact with infected birds or a contaminated environment is the most likely source of infection, and the use of personal protective measures for people exposed to dead birds or their droppings will minimise the remaining risk. The recent severe cases in Asia and South America in children and people exposed to infected, sick, or dead backyard poultry underline the risk of unprotected contact with infected birds in backyard farm settings. This would also suggest the expedience of using appropriate personal protective equipment.

### Actions

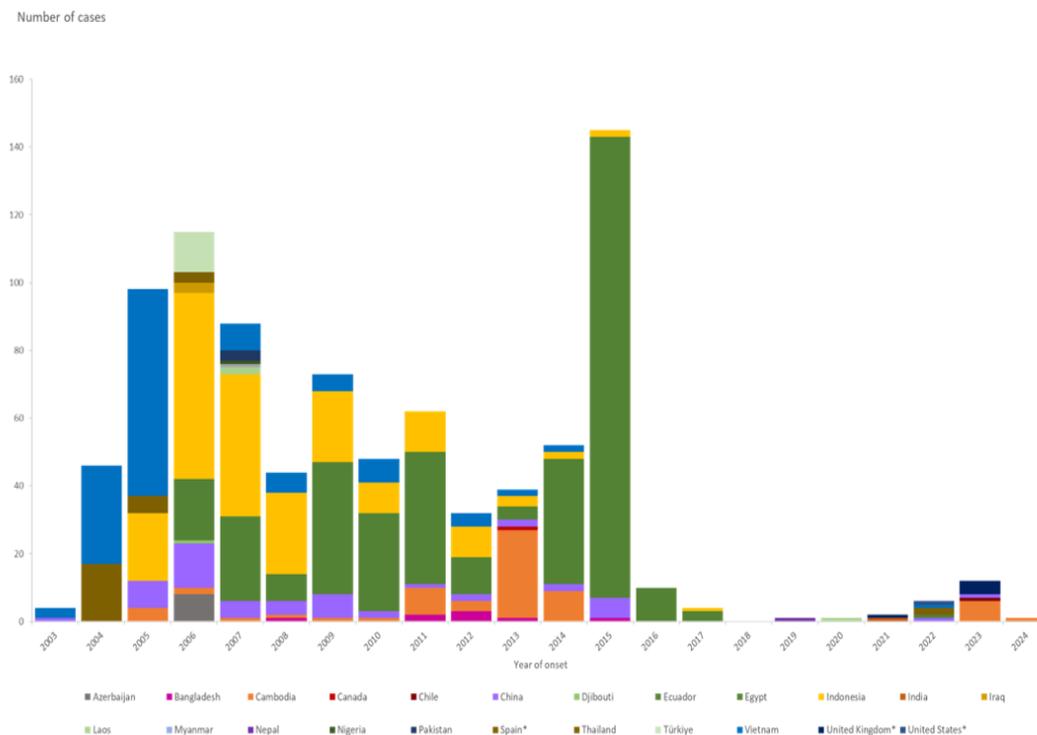
ECDC monitors avian influenza strains through its influenza surveillance programme and epidemic intelligence activities in collaboration with the European Food Safety Authority (EFSA) and the EU Reference Laboratory for Avian Influenza in order to identify significant changes in the virological characteristics and epidemiology of the virus. Together with EFSA and the EU Reference Laboratory for Avian Influenza, ECDC produces a quarterly updated report of the [avian influenza situation](#).

**Sources:** [42877](#) | [2023-E000065](#)

**Last time this event was included in the Weekly CDTR:** 1 December 2023.

## Maps and graphs

**Figure 2. Distribution of confirmed human cases of avian influenza A(H5N1) virus infection by year of onset and country, 2003– 26 January 2024 (n=883)**



\*includes six detections due to suspected environmental contamination and no evidence of infection reported in 2022 from Spain (2) and the United States (1) and in 2023 from the United Kingdom (3).

Source: ECDC

## 4. Cholera – Multi-country (World) – Monitoring global outbreaks

### Overview

Data presented in this report originate from several sources, both official public health authorities and non-official sources, such as the media. Case definitions, testing strategies and surveillance systems vary between countries. In addition, data completeness and levels of under-reporting vary between countries. All data should therefore be interpreted with caution. Refer to the original sources for more information regarding the case definitions in use and for details on the epidemiological situation.

### Summary

As of 23 January, 50 440 new cholera cases, including 483 new deaths, had been reported worldwide in December 2023. The five countries reporting most cases are Afghanistan (12 425), Syria (11 200), Zimbabwe (6 902), Sudan (5 742), and Mozambique (4 257). The five countries reporting most new deaths are Sudan (146), Zimbabwe (127), Zambia (95), Ethiopia (69), and Congo (14). In addition, 184 272 new cases were reported or collected retrospectively from before 30 November 2023.

New cases have been reported from Afghanistan, Dominican Republic, Burundi, Cameroon, Congo, Democratic Republic of the Congo, Ethiopia, Kenya, Malawi, Mozambique, Somalia, Sudan, Syria, Togo, Zambia and Zimbabwe.

In 2023, 957 050 cholera cases, including 5 518 deaths, were reported worldwide. In comparison, in 2022, 1 261 347 cholera cases, including 2 342 deaths, were reported worldwide.

**Since the last update, new cases and new deaths have been reported from:****Asia:**

**Afghanistan:** Since 25 November 2023 and as of 30 December 2023, 12 425 new cases, including eight new deaths have been reported. Since 1 January 2023 and as of 30 December 2023, 222 230 cases, including 101 deaths have been reported. In comparison, in 2022 and as of 31 December 2022, 242 562 cases, including 87 deaths were reported.

**Syria:** Since 25 November 2023 and as of 23 December 2023, 11 200 new cases have been reported. Since 1 January 2023 and as of 23 December 2023, 294 930 cases, including 952 deaths have been reported. In comparison, in 2022 and as of 31 December 2022, 52 879 cases, including 97 deaths were reported.

**Africa:**

**Burundi:** Since 28 October 2023 and as of 9 December 2023, 116 new cases have been reported. Since 1 January 2023 and as of 9 December 2023, 1 343 cases, including nine deaths, have been reported. In comparison, in 2022 and as of 31 December 2022, 12 cases were reported.

**Cameroon:** Since 26 November 2023 and as of 31 December 2023, 70 new cases, including one new death has been reported. Since 1 January 2023 and as of 31 December 2023, 21 269 cases, including 508 deaths have been reported. In comparison, in 2022 and as of 29 December 2022, 15 108 cases, including 302 deaths, were reported.

**Congo:** Since 28 October 2023 and as of 31 December 2023, 631 new cases, including five new deaths have been reported. Since 1 January 2023 and as of 31 December 2023, 724 cases, including 14 deaths, have been reported. In comparison, in 2022 and as of 31 December 2022, no cases were reported.

**Democratic Republic of the Congo:** Since 26 November 2023 and as of 31 December 2023, 859 new cases, including two new deaths, have been reported. Since 1 January 2023 and as of 31 December 2023, 40 497 cases, including 344 deaths, have been reported. In comparison, in 2022 and as of 30 December 2022, 17 135 cases, including 285 deaths, were reported.

**Ethiopia:** Since 26 November 2023 and as of 31 December 2023, 3 318 new cases, including 69 new deaths have been reported. Since 1 January 2023 and as of 31 December 2023, 29 869 cases, including 426 deaths have been reported. In comparison, in 2022 and as of 29 December 2022, 1 141 cases, including 27 deaths, were reported.

**Kenya:** Since 26 November 2023 and as of 19 December 2023, 120 new cases, including three new deaths have been reported. Since 1 January 2023 and as of 19 December 2023, 8 937 cases, including 148 deaths, have been reported. In comparison, in 2022 and as of 18 December 2022, 2 959 cases, including 55 deaths, were reported.

**Malawi:** Since 26 November 2023 and as of 31 December 2023, nine new cases, including one new death have been reported. Since 1 January 2023 and as of 31 December 2023, 43 015 cases, including 1 262 deaths, have been reported. In comparison, in 2022 and as of 31 December 2022, 17 448 cases, including 576 deaths, were reported.

**Mozambique:**

Since 26 November 2023 and as of 31 December 2023, 4 257 new cases, including 14 new deaths, have been reported. Since 1 January 2023 and as of 31 December 2023, 41 248 cases, including 164 deaths, have been reported. In comparison, in 2022 and as of 28 December 2022, 3 930 cases, including 21 deaths, were reported.

**Somalia:** Since 26 November 2023 and as of 31 December 2023, 2 750 new cases, including three new deaths have been reported. Since 1 January 2023 and as of 31 December 2023, 18 304 cases, including 46 deaths, have been reported. In comparison, in 2022 and as of 31 December 2022, 15 653 cases, including 88 deaths, were reported.

**Sudan:** Since 26 November 2023 and as of 31 December 2023, 5 742 new cases, including 146 new deaths, have been reported. Since 1 January 2023 and as of 31 December 2023, 8 267 cases, including 224 deaths, have been reported. In comparison, in 2022 and as of 31 December 2022, no cases were reported.

**Togo:** Since 22 December 2021 and as of 19 December 2023, one new case has been reported. Since 1 January 2023 and as of 19 December 2023, one case has been reported. In comparison, in 2022 and as of 31 December 2022, no cases were reported.

**Zambia:** Since 26 November 2023 and as of 31 December 2023, 2 035 new cases, including 95 new deaths, have been reported. Since 1 January 2023 and as of 31 December 2023, 3 757 cases, including 128 deaths, have been reported. Due to the rapid spread of the disease and the increase in [reported cases](#) this is likely to be one of the worst cholera outbreaks in the recent history of the country. Close to 52% of all cases are [reported](#) in children under 15 years of age. Zambian health authorities are conducting vaccination campaigns along with additional disease control measures. In comparison, in 2022 and as of 31 July 2022, 160 cases were reported.

**Zimbabwe:** Since 26 November 2023 and as of 31 December 2023, 6 902 new cases, including 127 new deaths, have been reported. Since 1 January 2023 and as of 31 December 2023, 15 137 cases, including 333 deaths, have been reported. In comparison, in 2022 and as of 18 July 2022, 135 cases were reported.

**America:**

**Dominican Republic:** Since 15 June 2023 and as of 15 December 2023, 12 new cases have been reported. Since 1 January 2023 and as of 15 December 2023, 111 cases have been reported. In comparison, in 2022 and as of 17 December 2022, six cases were reported.

## ECDC assessment

Cholera cases have continued to be reported on the African continent and in South-East Asia in recent months. Cholera outbreaks have also been reported in parts of the Middle East and in two countries in the Americas. Despite the number of cholera outbreaks reported worldwide, few cases are reported each year among travellers returning to the EU/EEA.

In this context, the risk of cholera infection in travellers visiting these countries remains low, even though sporadic importation of cases to the EU/EEA remains possible.

In 2022, 29 cases were [reported by nine EU/EEA countries](#), while two were reported in 2021 and none in 2020. In 2019, 25 cases were reported in EU/EEA countries. All cases had a travel history to cholera-affected areas.

According to the World Health Organization (WHO), vaccination should be considered for travellers at higher risk, such as emergency and relief workers who are likely to be directly exposed. Vaccination is generally not recommended for other travellers. Travellers to cholera-endemic areas should seek advice from travel health clinics to assess their personal risk and apply precautionary sanitary and hygiene measures to prevent infection. Such measures can include drinking bottled water or water treated with chlorine, carefully washing fruit and vegetables with bottled or chlorinated water before consumption, regularly washing hands with soap, eating thoroughly cooked food and avoiding consumption of raw seafood products.

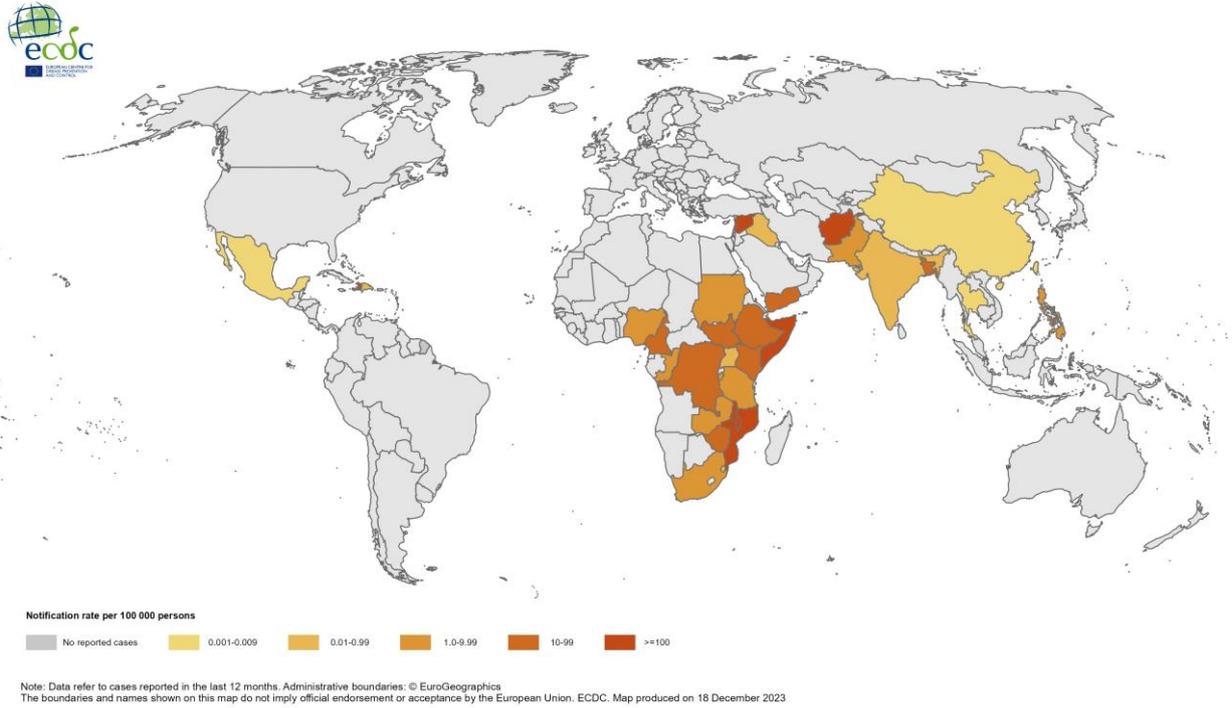
## Actions

ECDC continues to monitor cholera outbreaks globally through its epidemic intelligence activities in order to identify significant changes in epidemiology and provide timely updates to public health authorities. Reports are published on a monthly basis. The worldwide overview of cholera outbreaks is available on [ECDC's website](#).

**Last time this event was included in the Weekly CDTR:** 22 December 2023.

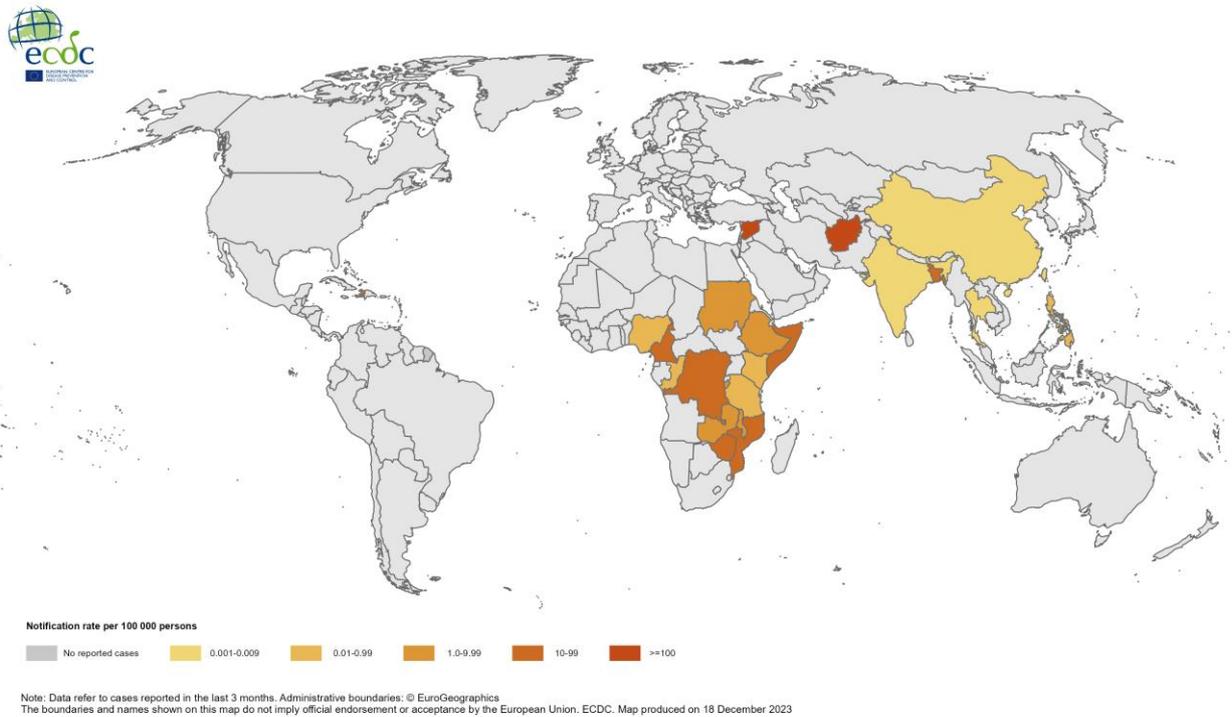
## Maps and graphs

**Figure 3. Geographical distribution of cholera cases reported worldwide from December 2022 to November 2023**



Source: ECDC

**Figure 4. Geographical distribution of cholera cases reported worldwide from September to November 2023**



Source: ECDC

## 5. Chikungunya and dengue – Multi-country (World) – Monitoring global outbreaks

### Overview

#### Chikungunya virus disease (CHIKVD)

In 2023 and as of 31 of December, approximately 500 000 CHIKVD cases and over 400 deaths had been reported worldwide. A total of 26 countries reported CHIKVD cases from the Americas (16), Africa (5) and Asia (5).

The majority of countries reporting high CHIKVD burden are from the Americas, in South and Central America. Countries reporting the highest number of cases are Brazil (256 927), Paraguay (140 905), Argentina (1 746), and Bolivia (1 455). Details of additional countries in the Americas reporting CHIKVD cases can be found on [PAHO's dedicated website](#).

Outside of the Americas, CHIKVD cases were reported in Asia from India (93 465), Philippines (2 561), Thailand (1 422), Malaysia (177) and Pakistan (18). Five African countries reported CHIKVD cases in 2023: Burkina Faso (545), Senegal (337), Mali (7), Gambia (1), and Namibia (1).

No autochthonous cases of CHIKVD were reported in Europe in 2023.

CHIKVD associated deaths were reported from Paraguay (297) and Brazil (106).

#### Dengue

In 2023, over six million dengue cases and over 6000 dengue-related deaths were reported from 92 countries/territories. Most cases were reported from Brazil, Bangladesh, Mexico, Peru and Burkina Faso.

In 2023 an upsurge of dengue cases was noted globally and cases were reported from all WHO regions (WHO DON Dengue - Global situation, December 2023). Countries in the WHO SEARO Region and WPRO Region reported a higher dengue burden than in previous years, and the majority of cases were reported from the Americas, making dengue the most widespread arbovirus disease in the region. According to [WHO PAHO](#), the cumulative incidence of dengue in the region was 456.4 per 100 000 population. This is 58% higher than the number of cases reported in 2022 and all four dengue virus serotypes were detected in the region. Simultaneous circulation of all dengue virus serotypes was reported in Brazil, Colombia, Costa Rica, Guatemala, Honduras, Mexico, Nicaragua, Panama and Venezuela.

In Africa, dengue was reported in 2023 in 15 African Union Member States, according to the [Africa CDC Weekly Event Based Surveillance Report of 31 December 2023](#).

Autochthonous/non-travel associated dengue cases were reported in Europe from [Italy](#) (82) [France](#) (43) and [Spain](#) (3).

#### Disclaimer

*The data presented in this report originates from both official public health authorities and non-official sources, such as news media. Data completeness depends on the availability of reports from surveillance systems and their accuracy, which varies between countries. All data should be interpreted with caution and comparisons, particularly across countries, avoided, due to under-reporting, variations in surveillance system structure, varying case definitions between countries and over time, and use of syndromic definitions.*

### ECDC assessment

Chikungunya virus disease and dengue affect people in most countries of the tropics and sub-tropics. EU/EEA citizens travelling to the affected areas should apply personal protective measures against mosquito bites.

The likelihood of onward transmission of dengue and chikungunya virus in mainland EU/EEA is linked to importation of the virus by viraemic travellers into receptive areas with established and active competent vectors (e.g. *Aedes albopictus* and *Aedes aegypti*). *Aedes albopictus* is [established](#) in a large part of Europe. *Aedes aegypti* is established in Cyprus, on the eastern shores of the Black Sea and in the outermost region of Madeira.

The current likelihood of the occurrence of local transmission events of chikungunya and dengue viruses in areas where the vectors are present in mainland EU/EEA is very low, as the environmental conditions are unfavourable for vector activity and virus replication in vectors. In 2023, locally-acquired dengue cases were reported by France, Italy and Spain.

All autochthonous outbreaks of [CHIVD](#) and [dengue](#) in mainland EU/EEA have so far occurred between June and November.

More information on autochthonous transmission of [chikungunya](#) and [dengue](#) virus in the EU/EEA is available on ECDC's webpages, and in ECDC's factsheets on [dengue](#) and [CHIKVD](#).

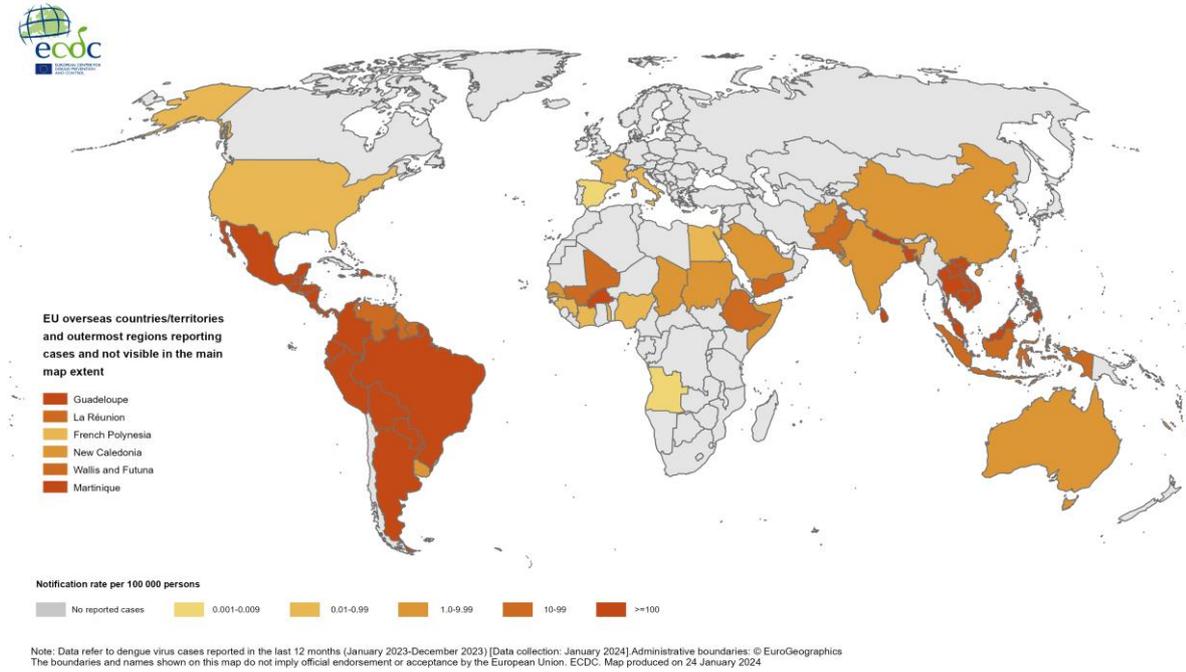
**Actions**

ECDC monitors these threats through its epidemic intelligence activities, and reports on a monthly basis. A summary of the worldwide overview of **dengue** and **CHIKVD** is available on ECDC's website.

**Last time this event was included in the Weekly CDTR:** 15 December 2023.

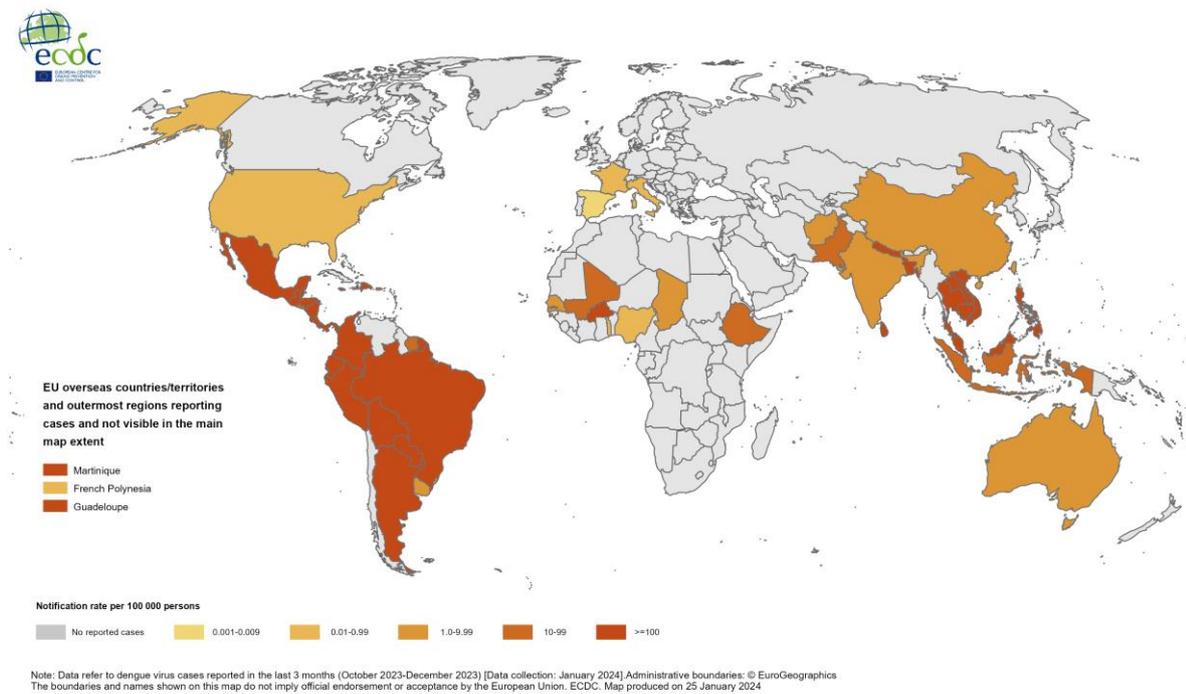
**Maps and graphs**

**Figure 5. 12-month dengue virus disease case notification rate per 100 000 population, January–December 2023**



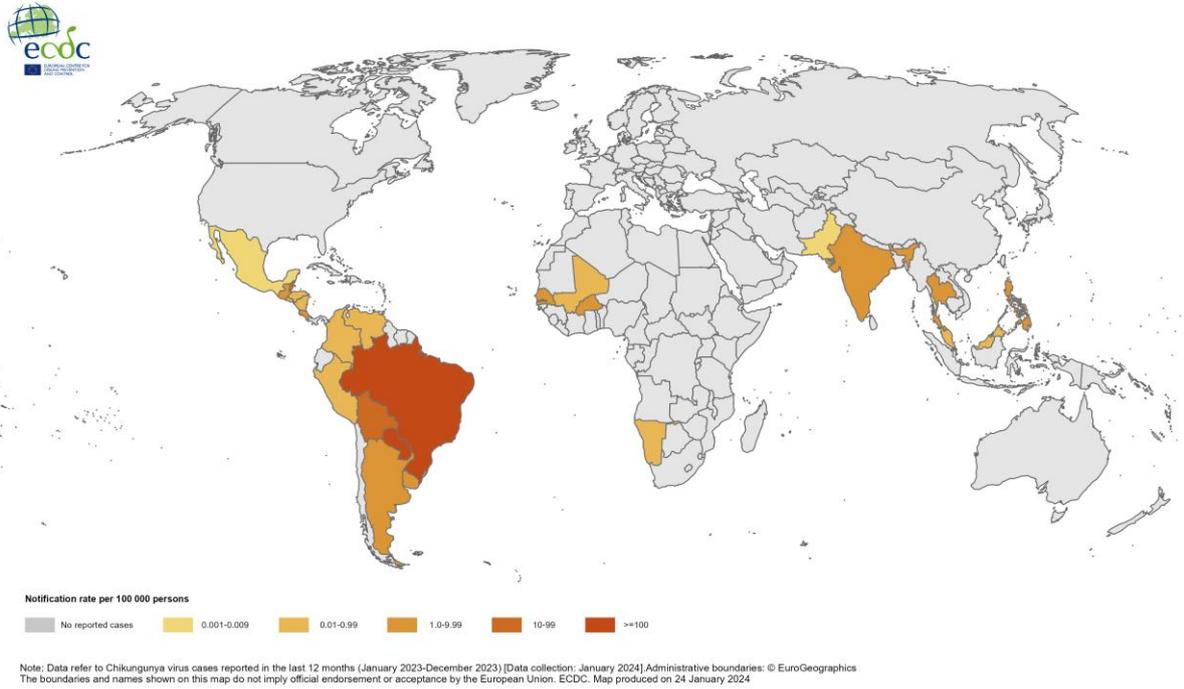
Source: ECDC

**Figure 6. Three-month dengue virus disease case notification rate per 100 000 population, October–December 2023**



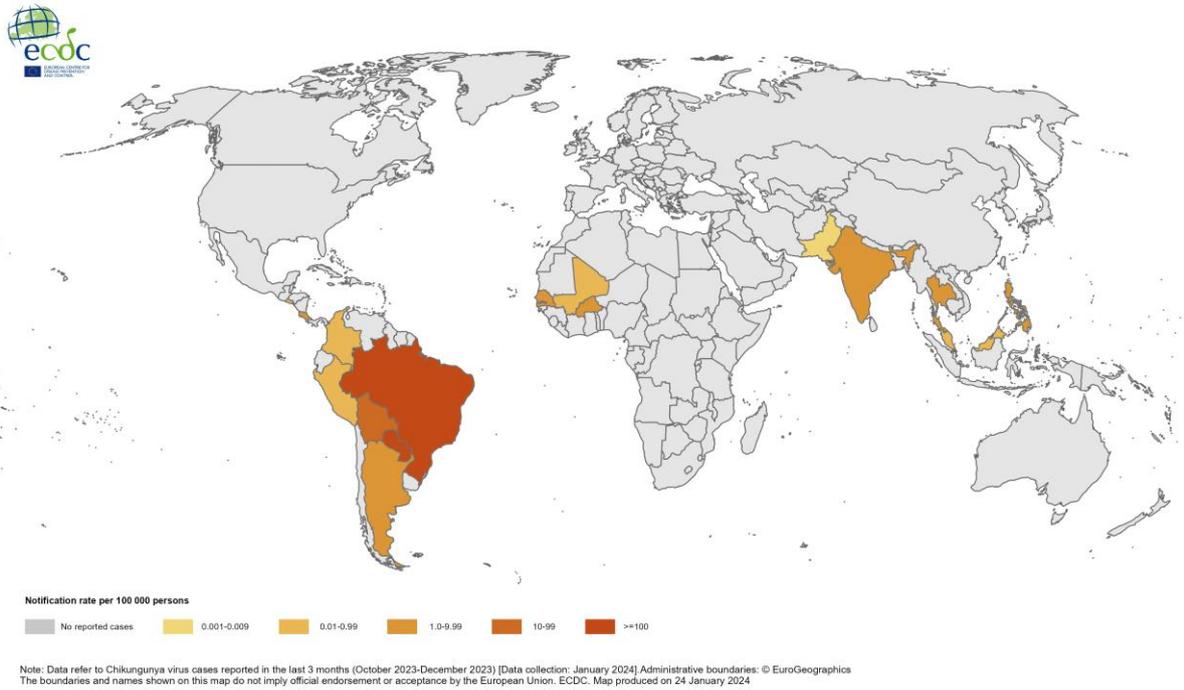
Source: ECDC

**Figure 7. 12-month Chikungunya virus disease case notification rate per 100 000 population, January-December 2023**



Source: ECDC

**Figure 8. Three-month Chikungunya virus disease case notification rate per 100 000 population, October-December 2023**



Source: ECDC

## 6. Increase in number of Zika cases in Thailand in 2023

### Overview

Following [media reports](#) of an increased incidence of Zika virus infections in Thailand in 2023, ECDC initiated an EpiPulse item to assess the potential increase in Zika cases imported from Thailand in 2023. According to media, citing government sources, in 2023, Thailand reported 758 cases, an increase of almost 300% compared to the previous year. The report also mentioned that tourists from the Netherlands and Germany were among those infected.

The EpiPulse item was posted on January 15, 2024. As of January 23, 2024, six countries responded on EpiPulse with cases exposed in Thailand with disease onset, notification, or exposure in 2023: Germany (10, including two cases with a date of onset in December 2022), France (9), Portugal (2), Ireland (1), Belgium (1), and Greece (0). Additionally, Czechia has reported to TESSy two cases imported from Thailand for 2023. Of the 25 reported cases, 21 had dates of onset, notification, or exposure during the second half of the year. The number of cases in the EU/EEA imported from Thailand in 2023 is noticeably high, even with the data being largely incomplete, compared to the annual number of cases since 2016. From 2016 to 2022, the median number of cases imported from Thailand was five, with a range from one to 14.

### ECDC assessment

Transmission of Zika virus has been [reported](#) in the past in Thailand. The detection of a relatively high number of imported cases within the last few months probably signals ongoing transmission of Zika virus in Thailand. Travellers to affected regions of Thailand are at risk of Zika virus exposure. There is also a potential for transmission through sexual contact with individuals who have become infected after visiting high-risk areas.

The primary mode of transmission for Zika virus is through the bite of an infected *Aedes* mosquito. Other modes of transmission include blood transfusion and organ transplantation, sexual transmission and mother-to-child transmission during pregnancy and delivery when the mother is infected. Zika virus infection during pregnancy is associated with intrauterine central nervous system infection, congenital malformations and foetal death. Hence, pregnant women are the main risk group and the primary target for preventive measures.

There is no prophylactic or curative treatment and there is no vaccine to protect against Zika virus infection. Therefore, personal preventive measures are recommended to avoid mosquito bites.

The likelihood for sustained transmission of Zika virus infections in mainland EU/EEA is highly dependent on favourable environmental conditions for the competent vectors (i.e. *Aedes albopictus* and *Aedes aegypti*). As the environmental conditions are currently unfavourable for high-density mosquito populations and virus replication in the vector, the likelihood of sustained Zika virus transmission events in mainland EU/EEA is very low.

In EU/EEA, since 2016, 28 locally-acquired cases of Zika virus infection have been recorded in TESSy. The last locally acquired case in EU/EEA was reported in 2019. [Three of these locally-acquired cases](#) were due to vector borne transmission, in a single cluster that was detected in a neighbourhood in Var department, southern France in 2019. Of the remaining 25, 21 were reported as sexual transmission events from returning travellers to their partners in the EU/EEA (19 in 2016, one in 2017 and one in 2019), one was reported as a mother-to-child transmission event, and for three the transmission status was unknown.

WHO advises against any restrictions on travel to or trade with countries, areas and territories experiencing Zika virus transmission. However, WHO recommends that pregnant women avoid travel to areas with Zika virus transmission, particularly during outbreaks, based on the increased risk of microcephaly and other severe congenital malformations. To [prevent potential sexual transmission](#), all travellers returning from affected areas should practice safe sex for at least three months after the last possible exposure for men or two months for women.

### Actions

ECDC is monitoring the event through epidemic intelligence.

### Further information

- [Zika information for travelers \(who.int\)](#)
- [WHO guidelines for the prevention of sexual transmission of Zika virus.](#)