COVID-19 Epidemiological Update

Edition 176 published 13 February 2025

In this edition:

Key highlights

- During the four-week reporting period (9 December 2024 to 5 January 2025), weekly SARS-CoV-2 PCR positivity conducted through systematic virological surveillance changed from 8.5% in the first week of the reporting period to 8.1% in the last week, with a weekly average of over 59 000 specimens tested across 108 countries, with no region reporting an elevated percent test positivity in the last reporting week.
- WHO is monitoring eight SARS-CoV-2 variants, including one variant of interest (VOI) JN.1, and seven variants under monitoring (VUMs). JN.1, the VOI, accounted for 15.0% of sequences in week 1 of 2025. The VUMs XEC and LP.8.1 continue to increase in prevalence, accounting for 44.8% and 4.7%, respectively, of sequences in week 1 0f 2025, and are the only tracked variants currently growing in prevalence. All the remaining VUMs are declining in prevalence.
- Wastewater surveillance, an important component of SARS-CoV-2 surveillance, is also important for early warning and for monitoring SARS-CoV-2 variant circulation. Around 30 countries from five WHO Regions have publicly available wastewater surveillance information and are featured on WHO's COVID-19 dashboard. According to estimates obtained from wastewater surveillance, circulation of the SARS-CoV-2 virus is approximately 2 to 19 times higher than identified and reported cases [*†‡§].
- Globally, during the 28-day period from 9 December 2024 to 5 January 2025, 79 (34%) countries reported COVID-19 cases, and 24 (10%) countries reported COVID-19 deaths. *Note that this does not reflect the actual number of countries where cases or deaths occur, as many countries have stopped or changed the frequency of reporting.* From the available data, the number of reported cases decreased by 21% during the 28-day period, with over 161 000 new cases while new deaths increased by 14% with more than 3300 fatalities, compared to the previous 28 days (11 November to 8 December 2024). *Trends in the number of new reported cases and deaths should be interpreted with caution due to decreased testing and sequencing, alongside reporting delays in many countries.*
- During the same period, 37 (16%) countries provided data on COVID-19 hospitalizations and 28 (12%) countries on admissions to an intensive care unit (ICU) at least once, respectively. From the available data, over 14 600 new hospitalizations and more than 1000 new ICU admissions were reported during this

[*] Show us the data: global COVID-19 wastewater monitoring effectors, equity, and gaps

[†] Capturing the SARS-CoV-2 infection pyramid within the municipality of Rotterdam using longitudinal sewage surveillance

[§] Omicron COVID-19 Case Estimates Based on Previous SARS-CoV-2 Wastewater Load, Regional Municipality of Peel, Ontario, Canada

period. Among the countries reporting these data consistently over the current and past reporting period, there was an overall 10% increase in new hospitalizations while ICU admissions stayed unchanged.

- Post-COVID-19 condition (PCC) continues to pose a substantial burden on health systems. It is challenging to estimate the incidence of PCC with high precision, but data suggest that approximately 6% of symptomatic SARS-CoV-2 infections resulted in PCC symptoms.[**] While severe COVID-19 is a significant risk factor for PCC, over 90% of PCC cases arise following mild COVID-19 due to the sheer volume of infections. Vaccination appears to offer a protective effect, reducing the likelihood of developing PCC.[††]

For the latest data and other updates on COVID-19, please see:

- Past editions of the WHO Monthly Operational Update and Epidemiological Update on COVID-19
- WHO COVID-19 detailed surveillance data dashboard
- WHO COVID-19 policy briefs
- COVID-19 surveillance reporting requirements update for Member States
- Summary Tables of COVID-19 vaccine effectiveness (VE) studies and results (last updated 30 January 2025)
- Forest Plots displaying results of COVID-19 VE studies (last updated 10 February 2025)
- Special focus WEU on interpreting relative VE (29 June 2022, pages 6-8)
- Neutralization plots (last updated 10 February 2025)
- WHO COVID-19 VE Resources/Immunization Analysis and Insights

[**] Estimated Global Proportions of Individuals with Persistent Fatigue, Cognitive, and Respiratory Symptom Clusters Following Symptomatic COVID-19 in 2020 and 2021 - PubMed (nih.gov)

[††] Post-acute Sequelae of SARS-CoV-2 Infection in the Pre-Delta, Delta, and Omicron Eras | New England Journal of Medicine (nejm.org)

Global overview

Data as of 5 January 2025

SARS-CoV-2 test positivity rate conducted through systematic virological surveillance reflects the circulation of the virus in communities and is not much affected by reductions in disease surveillance. With the integration of SARS-CoV-2 into existing respiratory disease surveillance systems, more countries have started to report SARS-CoV-2 infections to the Global Influenza Surveillance and Response System (GISRS). Global and national data on SARS-CoV-2 PCR percent positivity are available on WHO's integrated influenza and other respiratory viruses surveillance dashboard.

Globally, during the four-week reporting period (9 December 2024 to 5 January 2025), the SARS-CoV-2 percent positivity of the specimens tested conducted through sentinel and systematic virological surveillance remained stable, changing from 8.5% in the beginning week of the reporting period to 8.1% in the last week. During this period, on average 59 114 specimens per week were tested for SARS-CoV-2 across 108 countries that reported at least once (Table 1).

Globally, the number of new weekly cases decreased by 21% during the 28-day period from 9 December 2024 to 5 January 2025 compared to the previous 28-day period (11 November to 8 December 2024), with over 161 000 new cases reported (Figure 2, Table 2). The number of new weekly deaths increased by 14% compared to the previous 28-day period, with over 3300 new fatalities reported. As of 5 January 2025, over 777 million confirmed cases and over 7 million deaths have been reported globally. According to estimates obtained from wastewater surveillance, circulation is approximately 2 to 19 times higher than identified and reported cases.[‡‡§§***†††]

Reported cases do not accurately represent infection rates due to the reduction in testing and reporting globally. During this 28-day period, only 34% (79 of 234) and 10% (24 of 234) of countries reported at least one case and death to WHO, respectively. It is important to note that this statistic does not reflect the actual number of countries with cases. Additionally, data from the previous 28-day period are continuously being updated to incorporate retrospective changes made by countries regarding reported COVID-19 cases and deaths. The data presented in this report are therefore incomplete and should be interpreted considering these limitations. Some countries continue to report high burdens of COVID-19, including increases in newly reported cases and, more importantly, increases in hospitalizations and deaths – the latter of which are considered more reliable indicators given reductions in testing.

As many countries discontinue COVID-19-specific reporting and integrate it into respiratory disease surveillance, WHO will use all available sources to continue monitoring the COVID-19 epidemiological situation, especially data on illness and impact on health systems. COVID-19 remains a major threat, and WHO urges Member States to maintain, not dismantle, their established COVID-19 infrastructure. It is crucial to sustain early warning, surveillance and reporting, variant tracking, early clinical care provision, administration of vaccine to high-risk groups, improvements in ventilation, and regular communication.

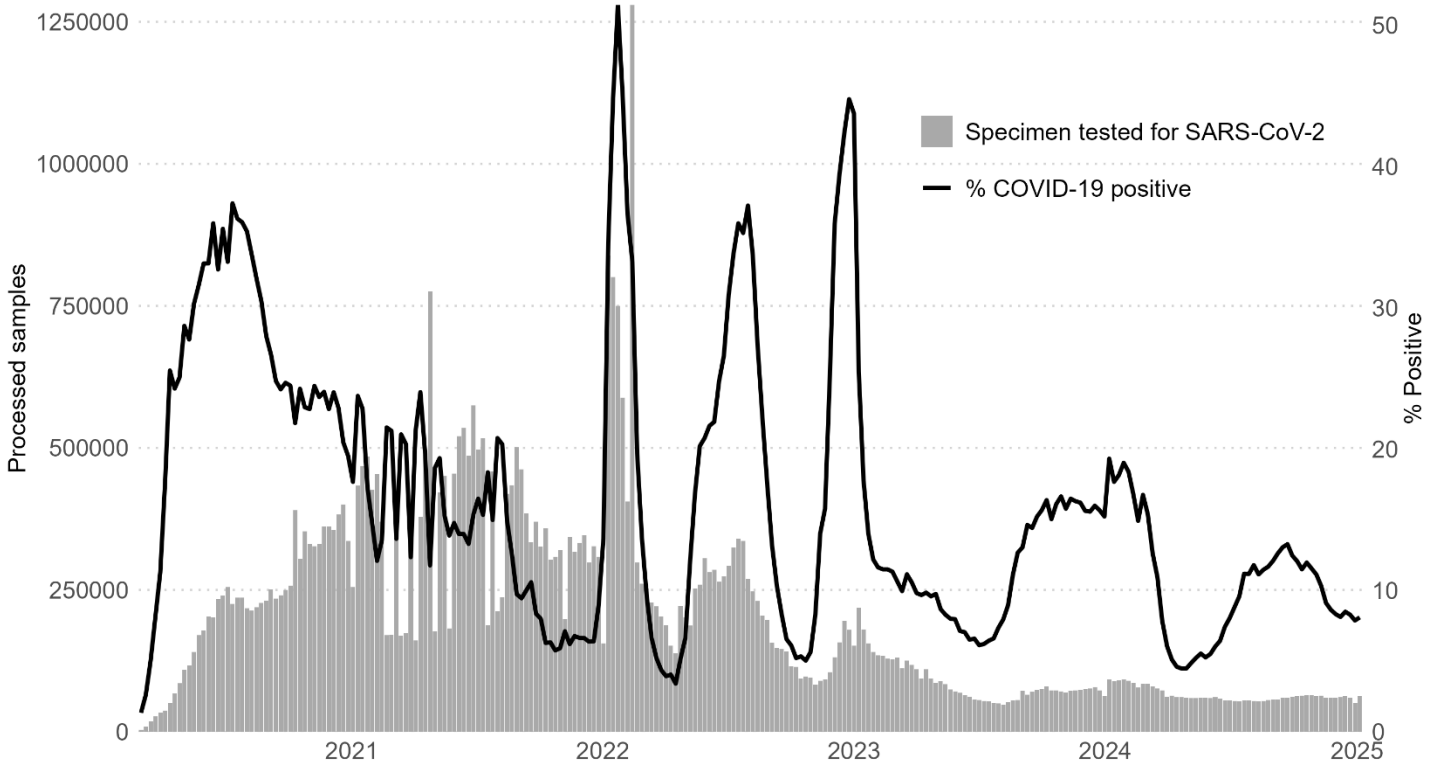
‡‡ Show us the data: global COVID-19 wastewater monitoring effectors, equity, and gaps

§§ Capturing the SARS-CoV-2 infection pyramid within the municipality of Rotterdam using longitudinal sewage surveillance

†††. Omicron COVID-19 Case Estimates Based on Previous SARS-CoV-2 Wastewater Load, Regional Municipality of Peel, Ontario, Canada

SARS-CoV-2 Test Positivity

Figure 1. Weekly SARS-CoV-2 percent test positivity reported to FluNet from systematically conducted virological surveillance, from 01 March 2020 to 5 January 2025

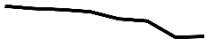
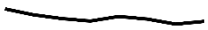


Source: Influenza and SARS-CoV-2 surveillance data from GISRS reported to FluNet; WHO

At the regional level, during the reporting period (9 December to 5 January 2025) the highest SARS-CoV-2 activity was observed in the Region of the Americas (ranging from 9.9% to 9.1% across 26 countries), followed by the African Region (from 6.2% to 1.8% across 18 countries), the South-East Asia Region (from 5.2% to 0.5% across 7 countries), the Western Pacific Region (from 4.8% to 3.2% across 8 countries), the European Region (from 3.4% to 1.9% across 38 countries), and the Eastern Mediterranean Region (from 1.7% to 0.9% across 11 countries) (Table 1).

At the country level, 108 countries reported SARS-CoV-2 test positivity from systematically conducted virological surveillance at least once during the reporting period (Figure 3). From the first to the fourth week of the reporting period, 4.6% (5/108) of countries reported an increase of more than 2.5% in weekly percent positivity. The top five highest increases in percent test positivity during the reporting period were reported from: Slovenia (from 10% to 18.2%), New Caledonia (from 4.3% to 11.6%), Paraguay (from 7.5% to 10.3%), Maldives (from 3.1% to 5.9%), and Burkina Faso (from 0% to 2.6%). At the end of the reporting week ending on September 22, 2024, 10% (11/108) of countries reported elevated SARS-CoV-2 activity (10% test positivity or more). The five highest test positivity rates at the end of the period were: Uruguay (22.2%), South Africa (18.9%), Mozambique (18.4%), Slovenia (18.2%), and Papua New Guinea (15.4%).

Table 1. SARS-CoV-2 test positivity as reported from systematically conducted virological surveillance by WHO Region during four-week reporting period (9 December to 5 January 2025)

WHO Region	TPR trend for the past eight weeks¥	Number of countries reporting at least once	Weekly percent test positivity* (number of specimens tested)			
			2024-50	2024-51	2024-52	2025-01
Africa		18	6.2% (1037)	3.0% (925)	1.8% (548)	5.3% (550)
Americas		26	9.9% (49 256)	9.8% (47 032)	9.3% (40 514)	9.1% (53 466)
Eastern Mediterranean		11	1.2% (2649)	1.7% (2762)	1.7% (2638)	1.0% (2430)
Europe		38	3.4% (5382)	3.2% (6081)	1.9% (3137)	2.0% (3427)
South-East Asia		7	2.6% (1073)	5.2% (1318)	0.5% (1480)	2.3% (1005)
Western Pacific		8	4.4% (3610)	3.2% (2353)	4.2% (2212)	4.8% (1570)
Global		108	8.5% (63 007)	8.3% (60 471)	7.9% (50 529)	8.1% (62 448)

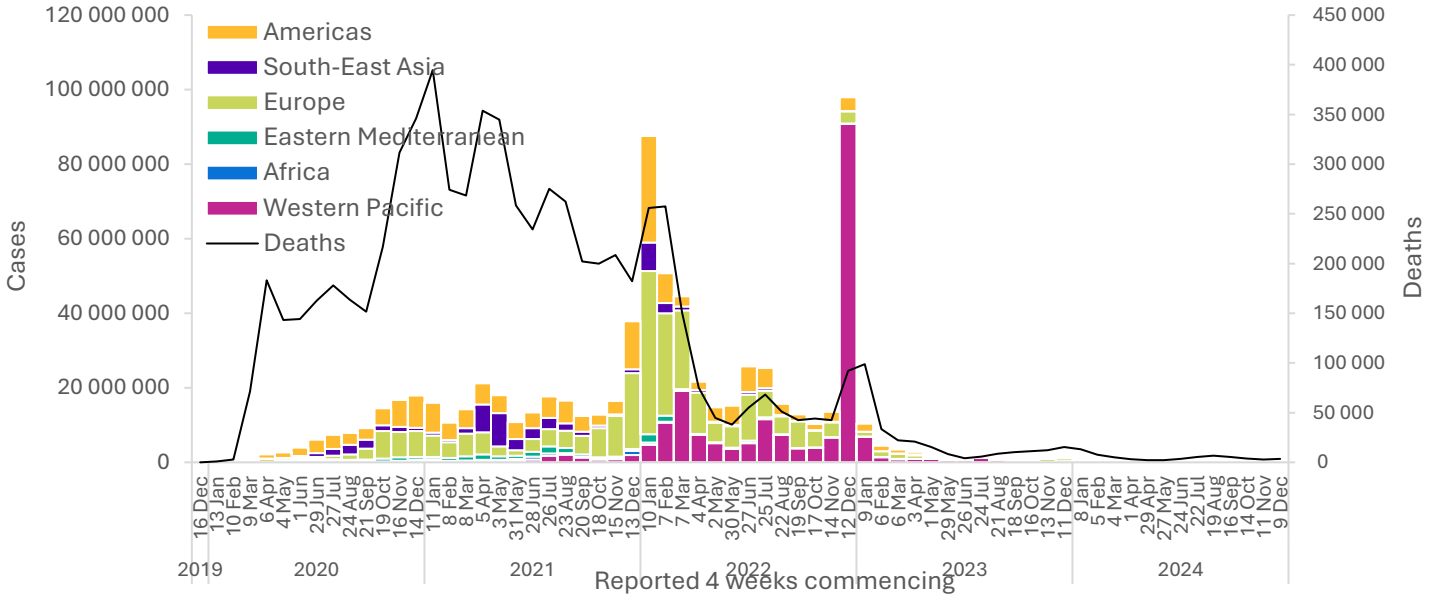
¥*From week 50 2024 to week 01 2025*

**Percent test positivity is calculated by dividing the number of SARS-CoV-2 detections by the number of specimens tested for SARS-CoV-2 and expressed in percentage. Data from previous weeks are updated continuously with adjustments received from countries.*

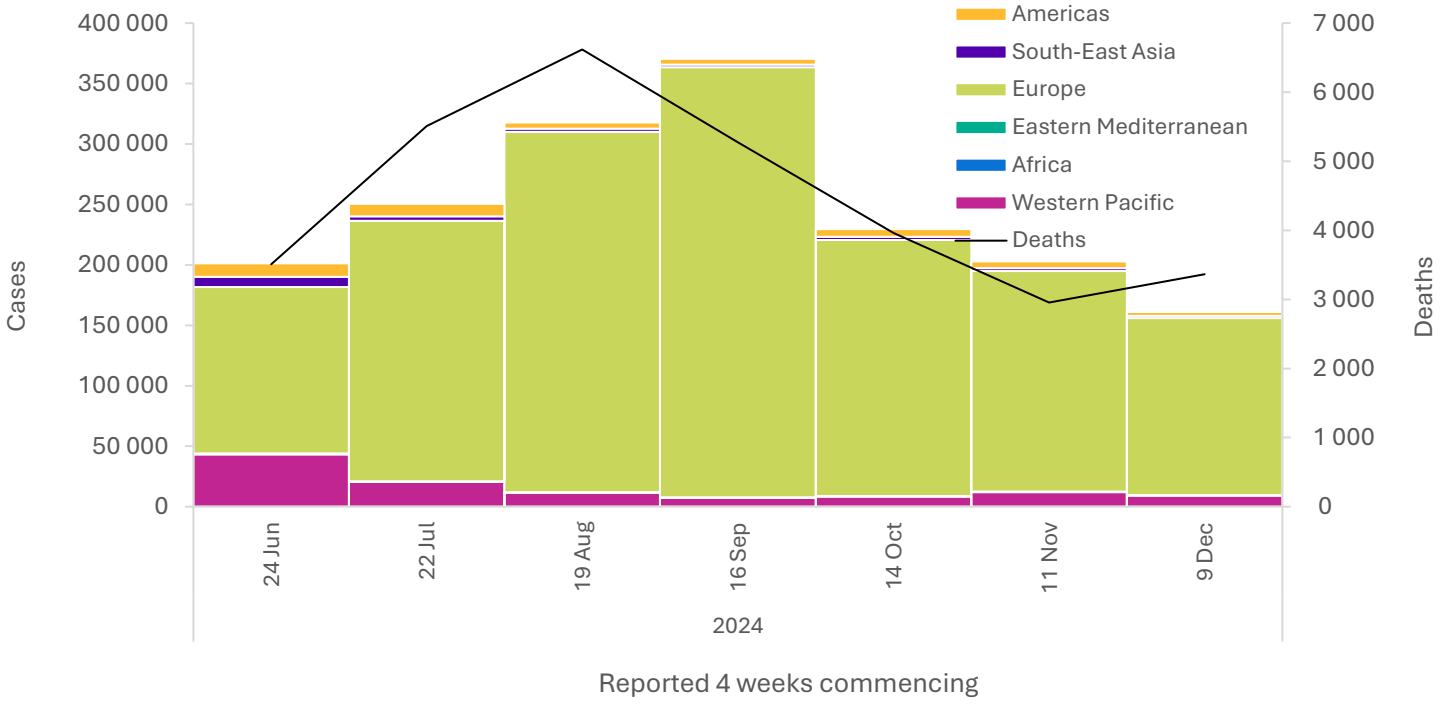
COVID-19 Morbidity and Mortality trends

Figure 2. COVID-19 cases and global deaths by 28-day intervals reported by WHO Region, as of 5 January 2025 (A); 24 June 2024 to 5 January 2025 (B)**

A



B



**See *Annex 1: Data, table, and figure note*

At the regional level, the number of newly reported 28-day cases decreased across five of the six WHO regions: the Region of the Americas (-40%), the South-East Asia Region (-26%), the African Region (-23%), the Western Pacific Region (-23%), and the European Region (-20%). The number of newly reported 28-day deaths decreased across two regions: the South-East Asia Region (-67%) and the European Region (-23%) while death numbers increased in two WHO regions: the Region of the Americas (+30%), and the Western Pacific Region (+6%). Neither the African Region nor the Eastern Mediterranean Region reported deaths during the reporting period.

At the country level, the highest numbers of new 28-day cases were reported from the Russian Federation (93 541 new cases; -21%), Greece (10 065 new cases; -12%), Italy (6660 new cases; -25%), the United Kingdom (5122 new cases; -7%), and Malaysia (4167 new cases; -23%). The highest numbers of new 28-day deaths were reported from, the United States of America (2598 new deaths; +32%), the Russian Federation (192 new deaths; -5%), Sweden (167 new deaths; -1%), Italy (117 new deaths; -45%), and Greece (99 new deaths; -20%).

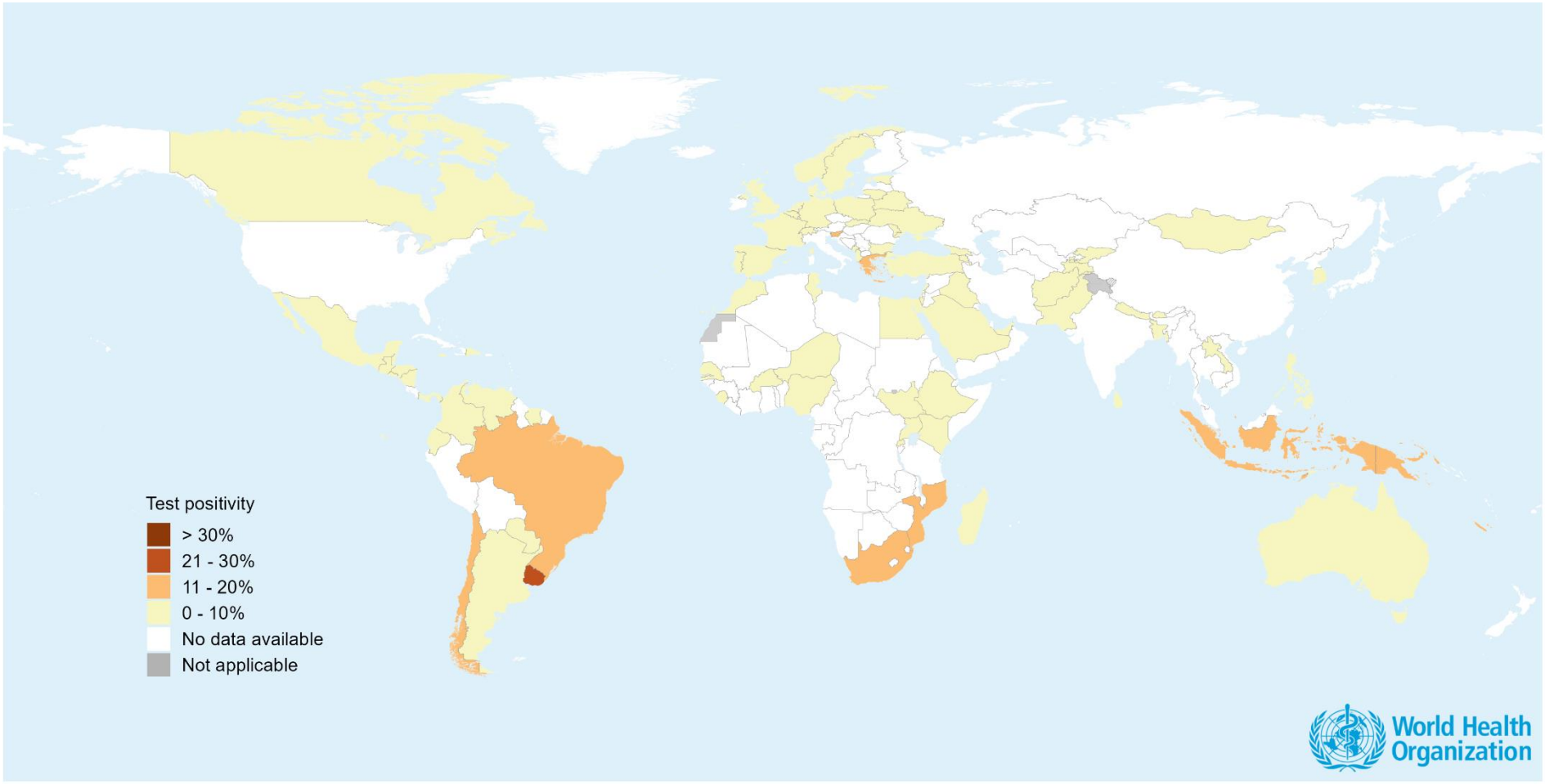
Table 2. Newly reported and cumulative COVID-19 confirmed cases and deaths by WHO Region, as of 5 January 2025**

WHO Region	New cases in last 28 days (%)	Change in new cases in last 28 days *	Cumulative cases (%)	New deaths in last 28 days (%)	Change in new deaths in last 28 days *	Cumulative deaths (%)	Countries reporting cases in the last 28 days	Countries reporting deaths in the last 28 days
Europe	146 377 (91%)	-20%	**281 032 257 (36%)**	673 (20%)	-23%	**2 280 443 (32%)**	34/61 (56%)	16/61 (26%)
Western Pacific	9 127 (6%)	-23%	**208 606 753 (27%)**	38 (1%)	6%	**421 659 (6%)**	5/35 (14%)	2/35 (6%)
Americas	3 270 (2%)	-40%	**193 321 276 (25%)**	2 649 (79%)	30%	**3 045 280 (43%)**	15/56 (27%)	5/56 (9%)
South-East Asia	1 846 (1%)	-26%	**61 327 067 (8%)**	3 (0%)	-67%	**808 867 (11%)**	5/10 (50%)	1/10 (10%)
Africa	443 (0%)	-23%	**9 585 289 (1%)**	0 (0%)	NA%	**175 532 (2%)**	20/50 (40%)	0/50 (<1%)
Eastern Mediterranean	0 (0%)	NA%	**23 417 911 (3%)**	0 (0%)	NA%	**351 975 (5%)**	0/22 (<1%)	0/22 (<1%)
Global	**161 063 (100%)**	**-21%**	**777 291 317 (100%)**	**3 363 (100%)**	**14%**	**7 083 769 (100%)**	**79/234 (34%)**	**24/234 (10%)**

**Percent change in the number of newly confirmed cases/deaths in the past 28 days, compared to 28 days prior. Data from previous weeks are updated continuously with adjustments received from countries.*

***See Annex 1: Data, table, and figure notes*

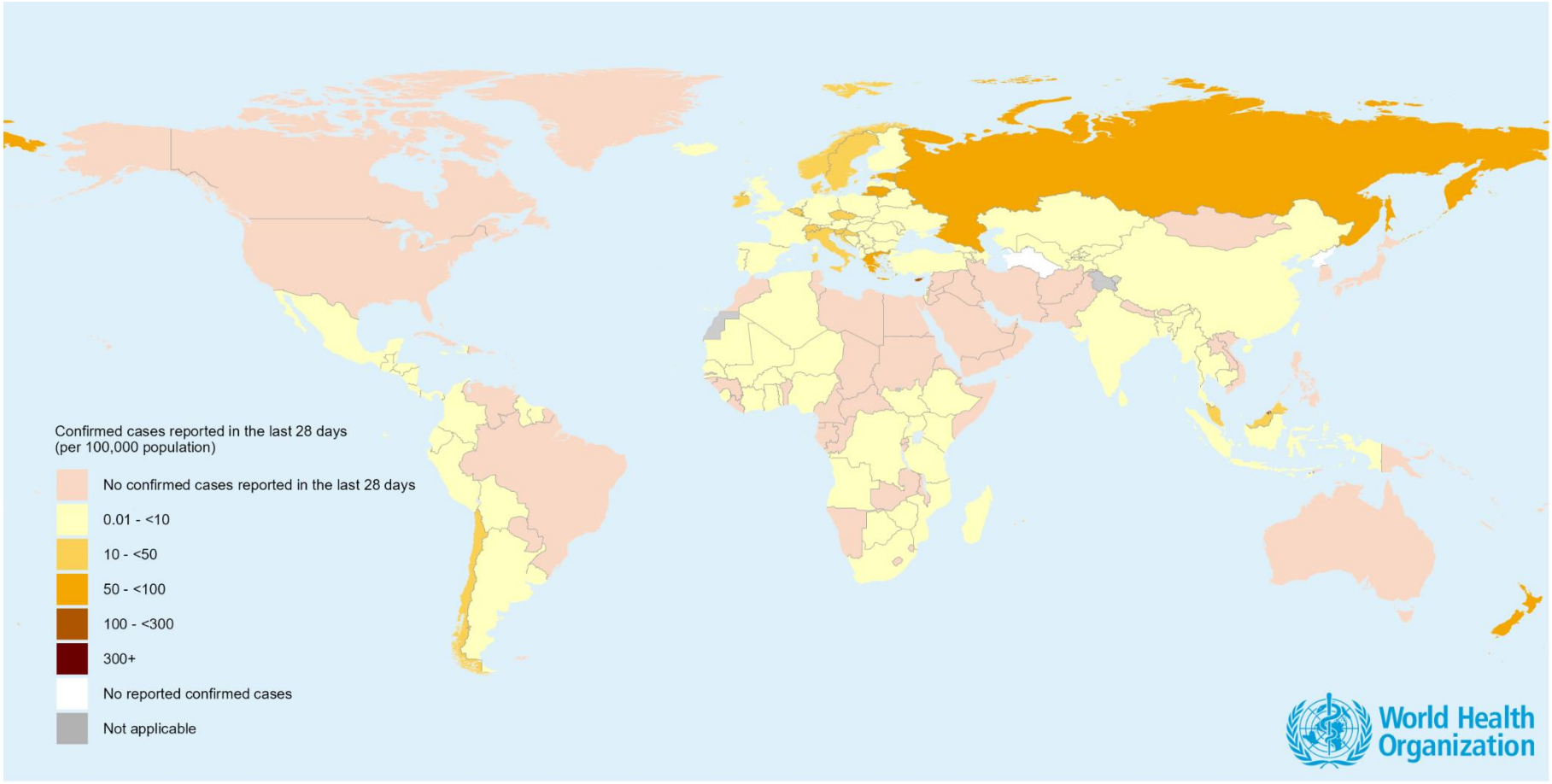
Figure 3. SARS-CoV-2 percent test positivity from systematically conducted virological conducted sites during the week ending on 5 January 2025



Data Source: World Health Organization, Global Influenza Surveillance and Response System (GISRS)
Map Production: WHO Health Emergencies Programme

Source: Influenza and SARS-CoV-2 surveillance data from GISRS reported to FluNet; WHO Global Influenza Programme

Figure 4. Number of confirmed COVID-19 cases reported over the last 28 days per 100 000 population, as of 5 January 2025



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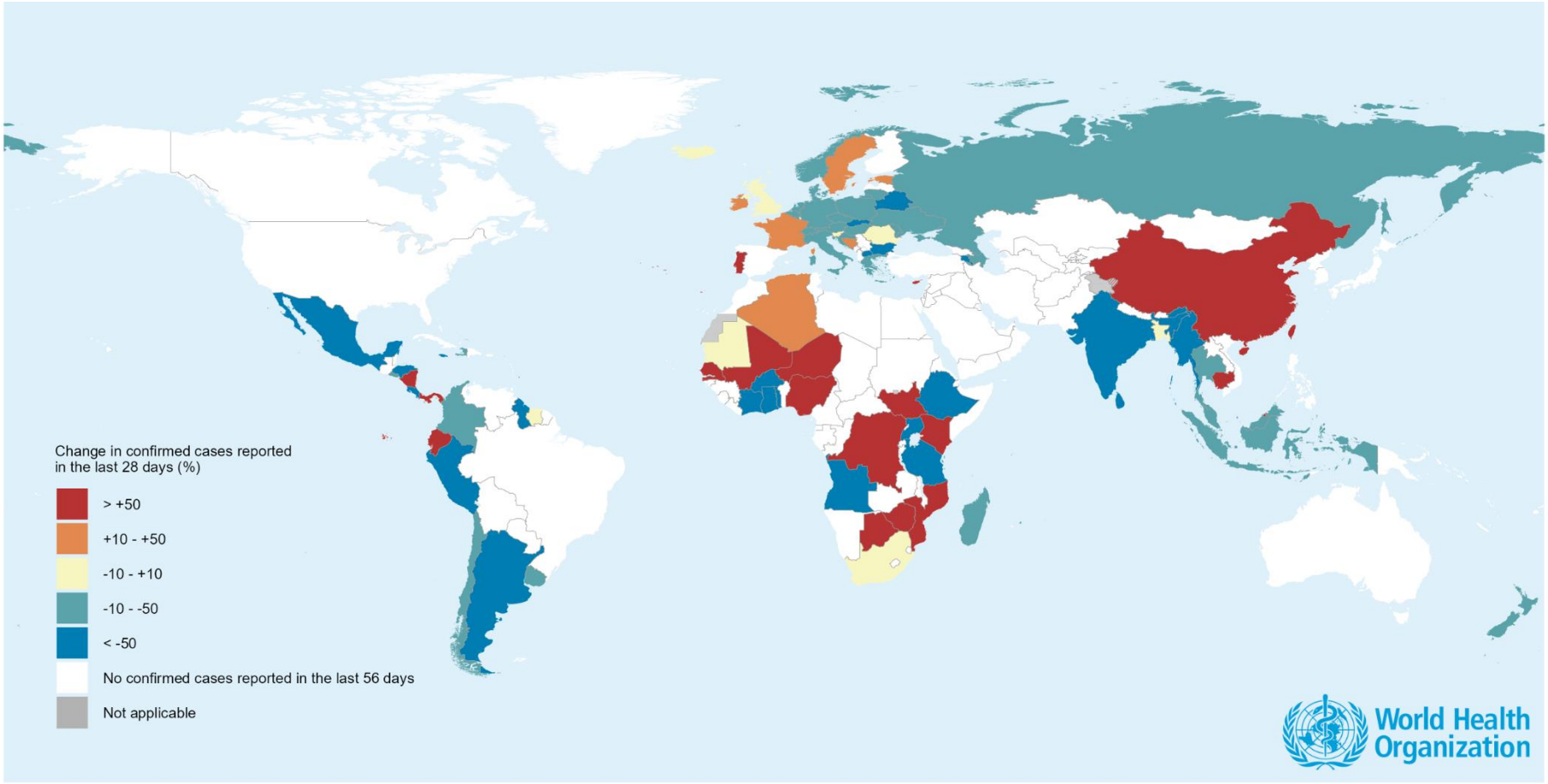
Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization, United Nations Population Division, EuroStat
Map Production: WHO Health Emergencies Programme

**See *Annex 1: Data, table, and figure notes*

Figure 5. Percentage change in confirmed COVID-19 cases over the last 28 days relative to the previous 28 days, as of 5 January 2025**



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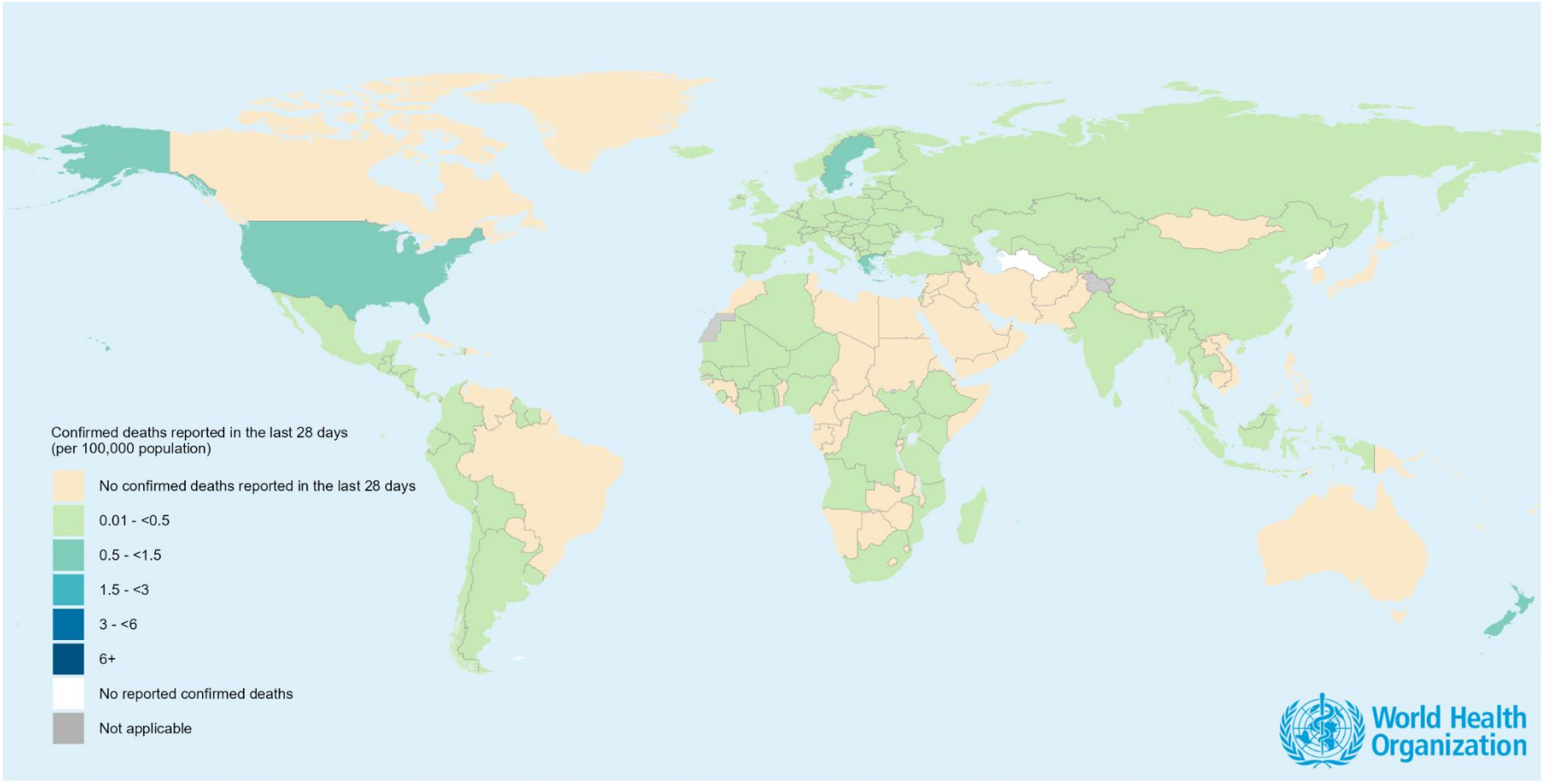
Data Source: World Health Organization
Map Production: WHO Health Emergencies Programme

**See *Annex 1: Data, table, and figure notes*

Figure 6. Number of COVID-19 deaths reported over the last 28 days per 100 000 population, as of 5 January 2025



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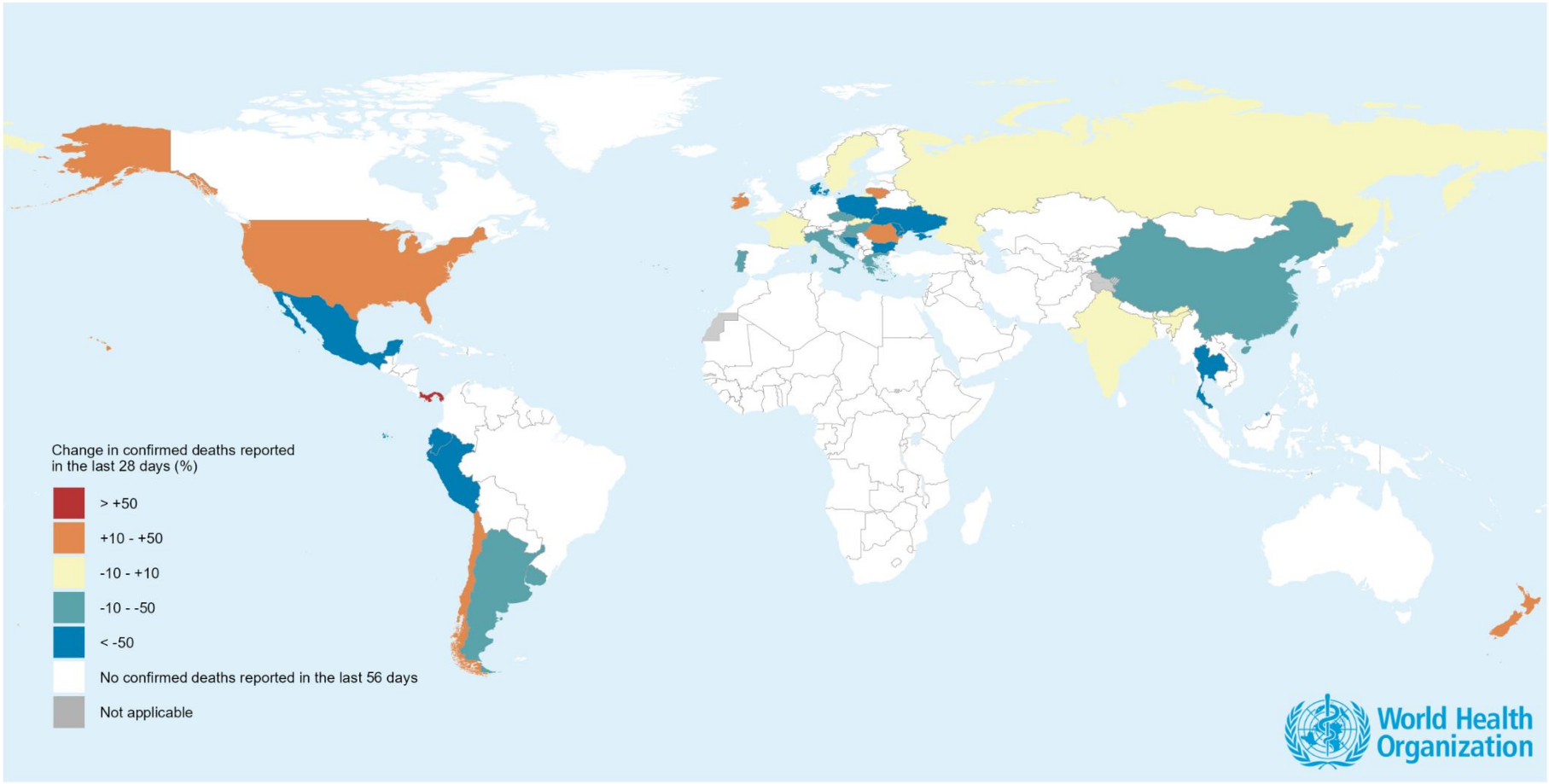
Data Source: World Health Organization, United Nations Population Division, EuroStat
Map Production: WHO Health Emergencies Programme

**See *Annex 1: Data, table, and figure notes*

Figure 7. Percentage change in confirmed COVID-19 deaths over the last 28 days relative to the previous 28 days, as of 5 January 2025



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Data Source: World Health Organization
Map Production: WHO Health Emergencies Programme

**See *Annex 1: Data, table, and figure notes*

Hospitalizations and ICU admissions

At the global level, during the 28 days from 9 December 2024 to 5 January 2025, a total of 14 617 new hospitalizations and 1047 new ICU admissions were reported from 37 and 31 countries, respectively across four WHO Regions. Among the countries reporting these data consistently over the current and past reporting period, there was overall an increase of 10% in new hospitalizations and no change in ICU admissions, respectively, compared to the previous 28 days (11 November to 8 December 2024) (Tables 3 and 4). Two regions (Americas and Western Pacific) reported an increase in hospitalizations with the Western Pacific Region reporting an increase in ICU admissions as well. Note that the absence of reported data from some countries to WHO does not imply that there are no COVID-19-related hospitalizations in those countries. The presented hospitalization data are preliminary and might change as new data become available. Furthermore, hospitalization data are subject to reporting delays. These data also likely include both hospitalizations with incidental cases of SARS-CoV-2 infection and those due to COVID-19 disease.

New hospitalizations

During the 28-day period from 9 December 2024 to 5 January 2025, 37 (16%) countries reported data to WHO on new hospitalizations at least once (Table 3). The Region of the Americas had the highest proportion of countries reporting data on new hospitalizations (19 countries; 34%), followed by the European Region (12 countries; 20%), Western Pacific Region (four countries; 11%), South-East Asia Region (one country; 10%), and the African Region (one country; 1%). No country in the Eastern Mediterranean Region shared data during the period. The number of countries that consistently[11] reported new hospitalizations for the period was 28 (12%) (Table 3).

Among the 28 countries consistently reporting new hospitalizations, five (18%) countries registered an increase of 20% or greater in hospitalizations during the past 28 days compared to the previous 28-day period: Ecuador (70 vs 20; >250%), Panama (25 vs 13; 92%), the United States of America (4343 vs 2483; 75%), Brunei Darussalam (38 vs 22; 73%), and Ireland (273 vs 213; 28%). The highest numbers of hospitalizations were reported in the United States of America (4343), Brazil (2344), and Greece (2099).

[11] "Consistently" as used here refers to countries that submitted data for new hospitalizations and intensive care unit admissions for the eight consecutive weeks (for the reporting and comparison period).

Table 3. Number of new hospitalization admissions reported by WHO regions; 9 December 2024 to 5 January 2025 compared to 11 November to 8 December 2024

Region	Countries reported at least once in the past 28 days		Countries reported consistently in the past and previous 28 days*		
	Number of countries (percentage)**	Number of new hospitalizations	Number of countries (percentage)**	Number of new hospitalizations	Percent change in new hospitalizations
Africa	1/50 (2%)	0	1/50 (2%)	0	N/A
Americas	19/56 (34%)	7240	14/56 (25%)	7186	34%
Eastern Mediterranean	0/22 (<1%)	N/A[+]	0/22 (<1%)	N/A	N/A
Europe	12/61 (20%)	4341	10/61 (16%)	4272	-16%
South-East Asia	1/10 (10%)	1597	0/10 (<1%)	N/A	N/A
Western Pacific	4/35 (11%)	1439	3/35 (9%)	1118	8%
Global	**37/234 (16%)**	**14 617**	**28/234 (12%)**	**12576**	**10%**

**Percent change is calculated for countries reporting consistently both in the past 28 days and the previous 28 days (comparison period).*

***Number of countries reported / total number of countries in the region (percentage of reporting).*
[+] N/A represents not available or not applicable.

New ICU admissions

Across the four WHO regions, in the past 28 days, a total of 31 (13%) countries reported data to WHO on new ICU admissions at least once (Table 4). The Region of the Americas had the highest proportion of countries reporting data on new ICU admissions (13 countries; 23%), followed by the European Region (12 countries; 20%), the Western Pacific Region (five countries; 14%), and the African Region (Only 1 country; 2%). No country from the South-East Asia Region or the Eastern Mediterranean Region shared data during the period. The proportion of countries that consistently reported new ICU admissions for the period was 9% (20 countries).

Among the 20 countries consistently reporting new ICU admissions, three (15%) countries showed an increase of 20% or greater in new ICU admissions during the past 28 days compared to the previous 28-day period: Lithuania (10 vs 4; >100%), Australia (55 vs 24; >100%), and Chile (18 vs 15; 20%). The highest numbers of ICU admissions were reported in Brazil (720), Italy (77), and Australia (55).

Table 4. Number of new ICU admissions reported by WHO regions, 9 December 2024 to 5 January 2025 compared to 11 November to 8 December 2024

Region	Countries reported at least once in the past 28 days		Countries reported consistently in the past and previous 28 days*		
	Number of countries (percentage)**	Number of new ICU admissions	Number of countries (percentage)**	Number of new ICU admissions	Percent change in new ICU admissions
Africa	1/50 (2%)	0[#]	1/50 (2%)	0	N/A
Americas	13/56 (23%)	750	8/56 (14%)	747	-1%
Eastern Mediterranean	0/22 (<1%)	N/A[+]	N/A	N/A	N/A
Europe	12/61 (20%)	219	7/61 (11%)	205	-4%
South-East Asia	0/10 (<1%)	N/A	N/A	N/A	N/A
Western Pacific	5/35 (13%)	78	4/35 (11%)	75	32%
Global	**31/234 (13%)**	**1047**	**20/234 (9%)**	**1027**	**0%**

**Percent change is calculated for countries reporting consistently both in the past 28 days and the previous 28 days (comparison period).*

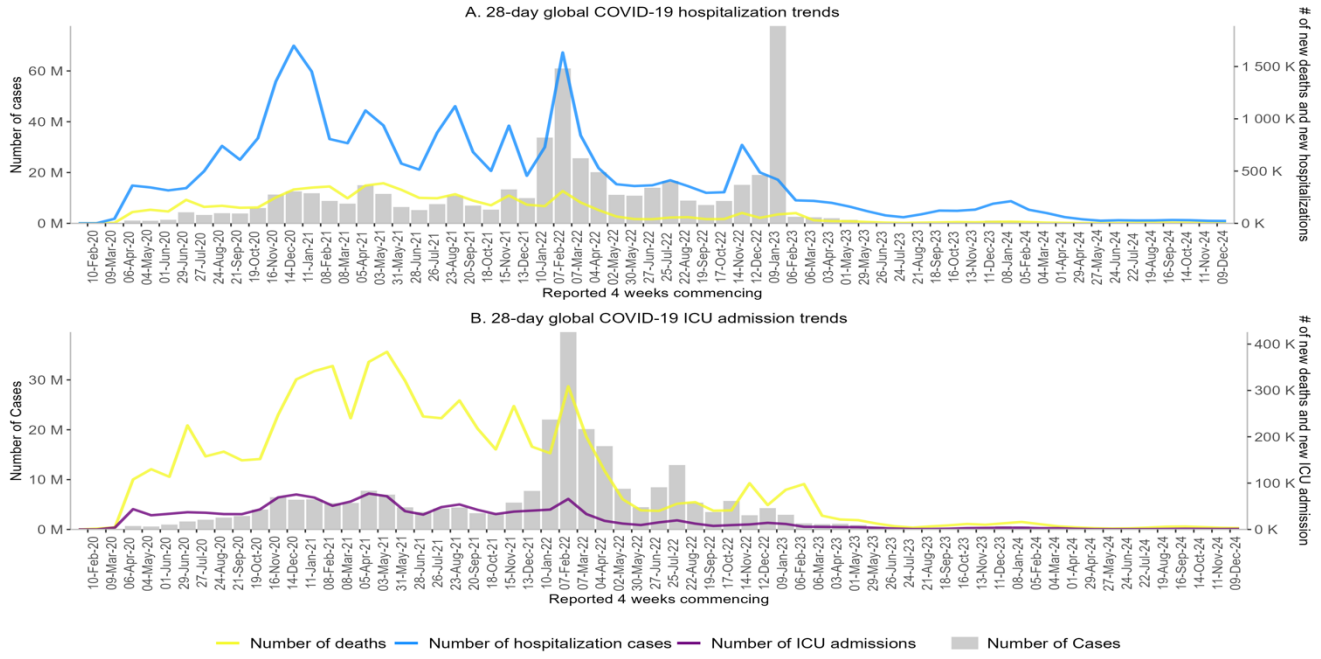
***Number of countries reported / total number of countries in the region (percentage of reporting).*

[+] N/A represents data not available or applicable.

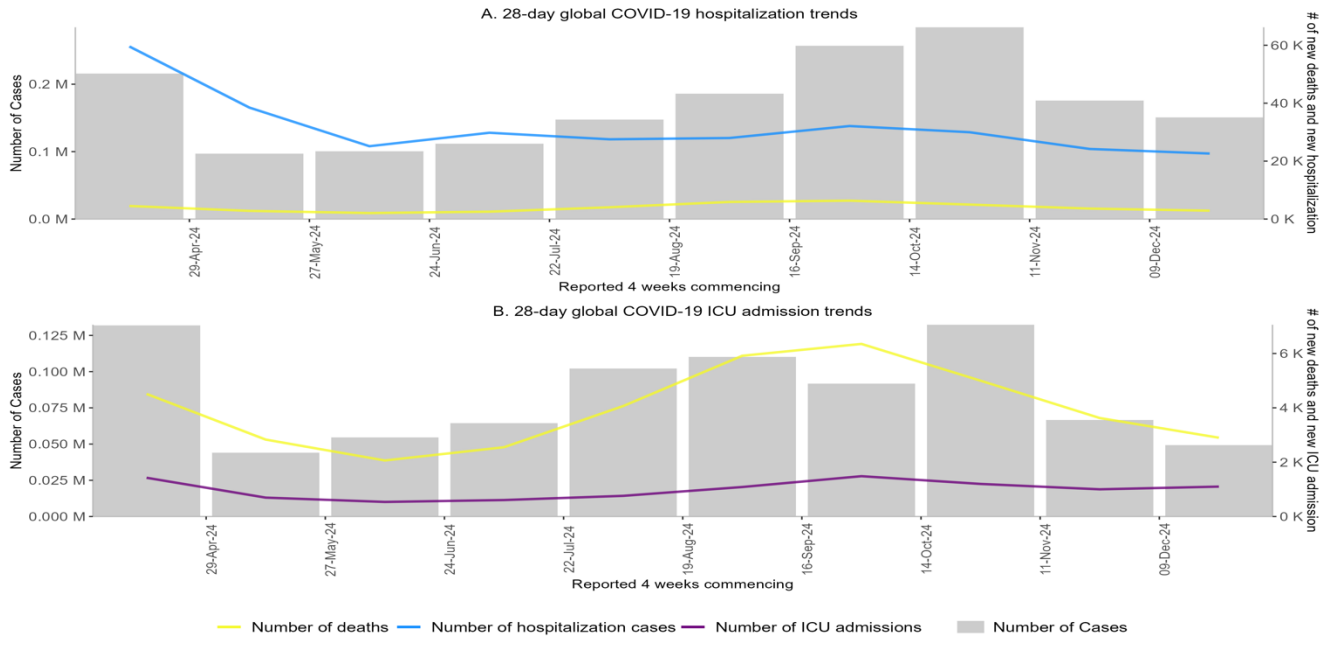
[#] WHO emphasizes the importance of maintaining reporting and encourages countries to report the absence of new admissions ("zero reporting") if there are no new hospital or ICU admissions during the week.

Figure 8. 28-day global COVID-19 hospitalization and ICU admission trends, from 03 February 2020 to 5 January 2025 (A); and from 20 May 2024 to 5 January 2025 (B)

A



B



Note: Recent weeks are subject to reporting delays and data might not be complete, thus the data should be interpreted with caution. Cases included in grey bars are only from countries reporting hospitalizations or ICU admissions, respectively.

Severity indicators

The incidence of ICU admissions per 1000 hospitalizations and the mortality rate per 1000 hospitalizations serve as critical indicators for monitoring the severity of COVID-19, especially since case-based surveillance is no longer systematically conducted. The ICU admissions per 1000 hospitalizations allow us to evaluate the number of patients requiring intensive care in relation to the total number of hospitalizations, while number of deaths per 1000 hospitalization allow us to monitor deaths occurring among those hospitalized.

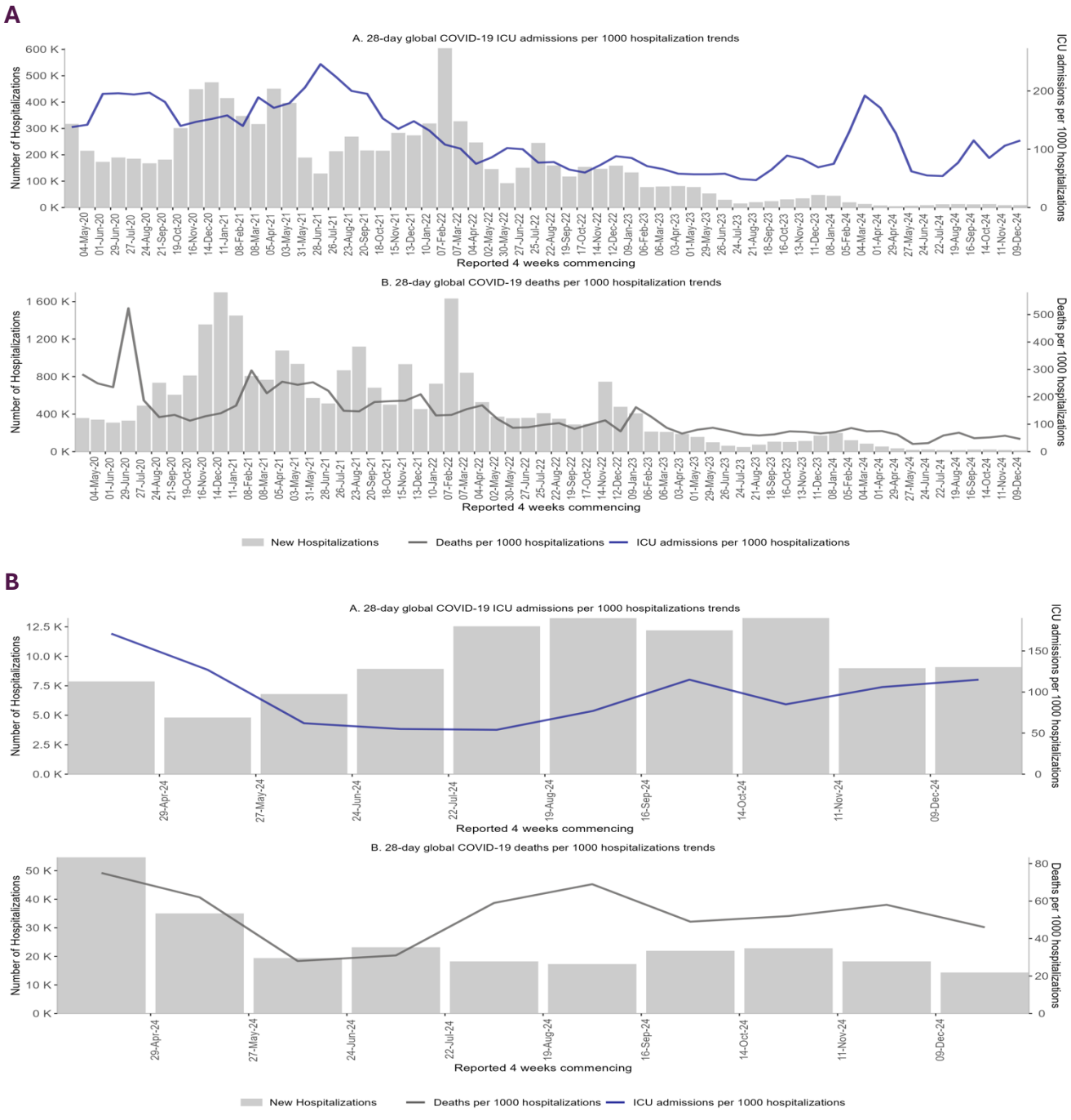
These indicators are subject to the same limitations mentioned in hospitalizations and ICU admissions section and their calculations are limited to the countries reporting all relevant data elements (hospitalizations, ICU admissions and deaths) in a given reporting period. It should be noted that there may be differences in reporting among countries. For instance, in some countries, hospitalization data may include ICU admissions, whereas in others, ICU admissions may be reported separately. Furthermore, it is important to consider that some deaths might have occurred outside of hospital facilities.

Overall, ICU admissions per 1000 hospitalizations have been decreasing since the peak in July 2021 when the rate was 245 per 1000 hospitalizations, dropping below 132 per 1000 hospitalizations at the beginning of 2022, and to less than 69 per 1000 hospitalizations by the end of 2023 (Figure 8). At the beginning of 2024, there was an increase in this rate, rising to above 191 per 1000 hospitalizations in March, and later declining to 124 per 1000 hospitalizations as of early January 2025. Note that due to limited reporting this does not suggest a global increase in the rate of new hospitalizations requiring intensive care. The number of countries reporting both ICU admissions and hospitalizations continues to decline, and a downward trend of admissions is observed in most of the reporting countries (Table 3 and 4). The combination of these two factors facilitates the fluctuations in the global trend driven by only one or two countries.

The deaths per 1000 hospitalization showed a consistent decline from June 2021 when it reached 253 per 1000 hospitalizations to a low level of 59 per 1000 hospitalizations in August 2023. Since January 2024, the rate has continued to decline reaching 76 deaths per 1000 hospitalizations by early January 2025 (Figure 9).

Please note that the causes for these trends cannot be directly interpreted from these data but likely include a combination of increases or decreases in infection-derived or vaccine-derived immunity, improvements in early diagnosis and clinical care, reduced strain on health systems, and other factors. It is not possible to infer a changed intrinsic virulence amongst newer SARS-CoV-2 variants from these data.

Figure 9. COVID-19 ICU per 1000 hospitalization and death per 1000 hospitalization, from 04 May 2020 to 5 January 2025 (A), and 20 May 2024 to 5 January 2025 (B)



Note: Recent weeks are subject to reporting delays and should not be interpreted as a declining trend. The ICU ratio figure is created from the data of the countries that reported both new hospitalizations and new ICU admissions. The death ratio figure is created from the data of the countries that reported both new hospitalization and new deaths.

SARS-CoV-2 variants of interest and variants under monitoring

Geographic spread and prevalence

Globally, during the 28-day period from 9 December 2024 to 5 January 2025, 20 182 SARS-CoV-2 sequences were shared through GISAID. In comparison, in the two previous 28-day periods, there were 22 127 and 28 369 sequences shared, respectively. The data are retrospectively updated periodically to include sequences with earlier collection dates, so the number of submissions in each time period may change.

WHO is currently tracking several SARS-CoV-2 variants, including:

- Variant of interest (VOI): JN.1
- Variants under monitoring (VUMs): JN.1.18, KP.2, KP.3, KP.3.1.1, LB.1, XEC and LP.8.1

Table 6 shows the number of countries reporting VOIs and VUMs, and their prevalence from epidemiological week 50 of 2024 (9 to 15 December 2024) to week 1 of 2025 (30 December 2024 to 5 January 2025). The VOI and VUMs exhibiting increasing trends are highlighted in yellow, those that have remained stable are highlighted in blue, and those with decreasing trends are highlighted in green.

Globally, JN.1 is the most reported VOI (now reported by 148 countries), accounting for 15.0% of sequences in week 1 of 2025 and showing a small decrease from a prevalence of 15.6% in week 50 of 2024 (Figure 12, Table 6).

The seven listed VUMs are all JN.1 descendent lineages. XEC, the current most prevalent SARS-CoV-2 variant, increased in prevalence, accounting for 44.8% of sequences in week 1 of 2025 compared to 38.5% in week 50 of 2024. KP.3.1.1, the previously most prevalent SARS-CoV-2 variant, declined in prevalence accounting for 27.3% of sequences in week 1 of 2025 compared to 32.1% in week 50 of 2024. KP.3 accounted for 5.6% of sequences in week 1 of 2025 compared to 6.5% in week 50 of 2024, KP.2 remained stable at 1.0% between week 50 of 2024 and week 1 of 2025, JN.1.18 accounted for 0.2% of sequences in week 1 of 2025 compared to 1.6% in week 50 of 2024, and LB.1 accounted for 0.2% in week 1 of 2025 compared to 0.5% in week 50 of 2024. The most recently listed VUM, LP.8.1, accounted for 4.7% in week 1 of 2025, up from 2.0% in week 50 of 2024.

XEC and LP.8.1 increased in prevalence for regions with sufficient data, as seen in Figure 11. Between weeks 50 of 2014 and week 1 of 2025, XEC increased in the region of the Americas (7.5%), European region (4.6%), and Western Pacific region (9.3%). LP.8.1 increased 2.3% in the region of the Americas, 1.5% in the European region, and 6.0% in the Western Pacific region.

With rates of testing and sequencing declining globally (Figure 12), it is increasingly challenging to estimate the severity impact of emerging SARS-CoV-2 variants. There are currently no reported laboratory or epidemiological reports indicating any association between VOIs/VUMs and increased disease severity. As shown in Figure 11 and Figure 12, low and unrepresentative levels of SARS-CoV-2 genomic surveillance continue to pose challenges in adequately assessing the variant landscape.

Table 6. Weekly prevalence of SARS-CoV-2 VOIs and VUMs, week 50 of 2024 to week 1 of 2025

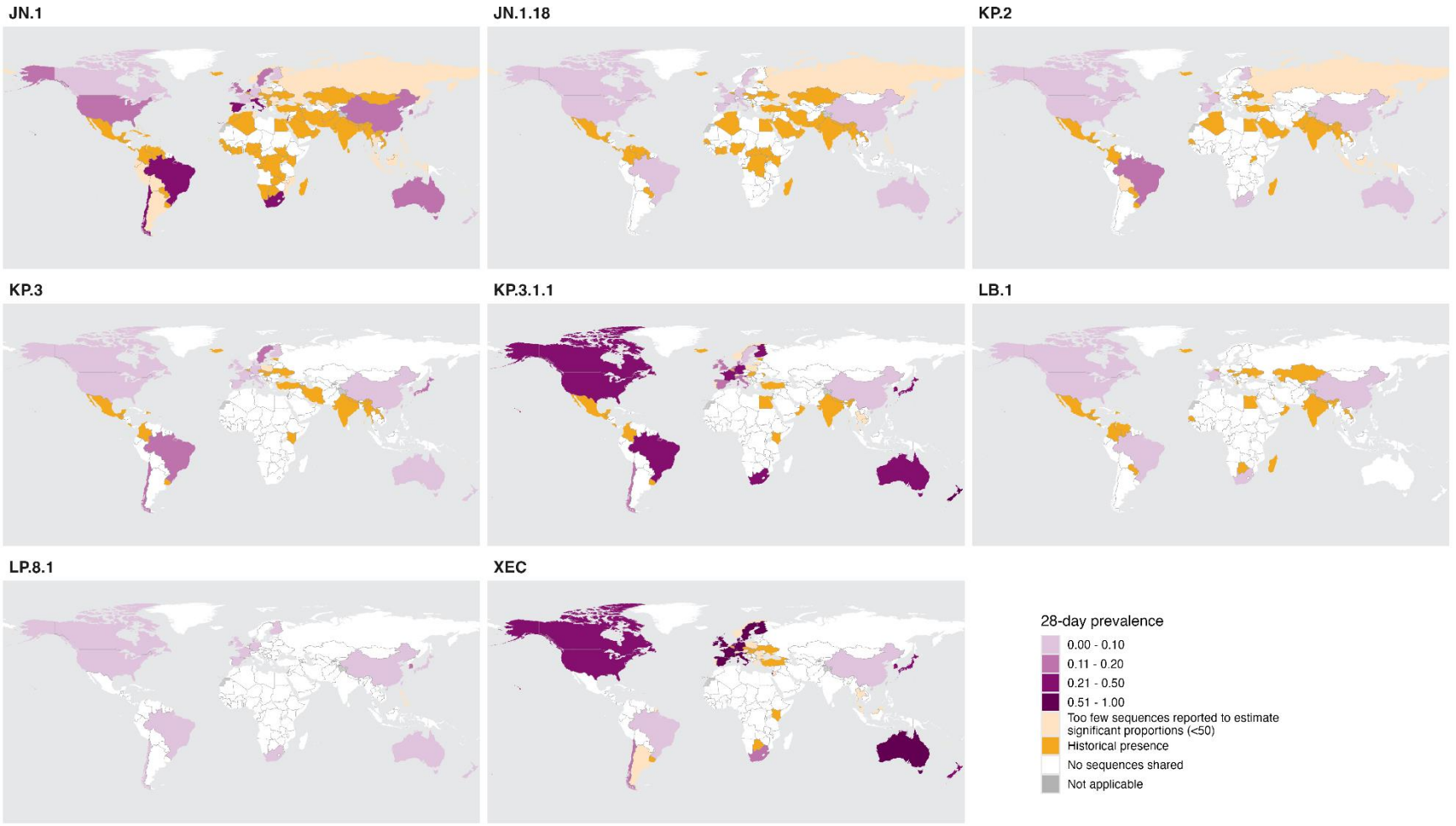
Lineage*	Countries§	Sequences§	2024-50	2024-51	2024-52	2025-01
VOIs						
JN.1	148	312069	15.6	16.2	16.4	15.0
VUMs						
KP.2	92	35771	1.0	1.6	1.4	1.0
KP.3	82	61206	6.5	6.4	5.9	5.6
KP.3.1.1	74	83930	32.1	29.6	28.3	27.3
JN.1.18	104	8575	1.6	1.5	0.9	0.2
LB.1	83	15770	0.5	0.4	0.2	0.2
XEC	63	33338	38.5	40.8	42.0	44.8
LP.8.1	26	1503	2.0	2.1	3.8	4.7
Recombinant	148	496987	2.1	1.4	0.9	0.9
Unassigned	69	4305	0.0	0.0	0.1	0.1
Others	120	37574	0.2	0.2	0.2	0.1

§ Number of countries and sequences are since the emergence of the variants. Note, however, that this does not apply to recombinants, unassigned and the other variants categories, and only from 1 July 2023.
* Includes descendant lineages, except those individually specified elsewhere in the table. For example, JN.1* does not include JN.1.18, KP.2, KP.3, KP.3.1.1, LB.1 and LP.8.1 and Recombinant* does not include XEC.

Additional resources

- Tracking SARS-CoV-2 Variants
- WHO statement on updated tracking system on SARS-CoV-2 variants of concern and variants of interest
- SARS-CoV-2 variant risk evaluation framework, 30 August 2023
- WHO JN.1 Updated Risk Evaluation, 9 February 2024
- WHO XEC Initial Risk Evaluation, 09 December 2024
- WHO LP.8.1 Initial Risk Evaluation, 03 February 2025

Figure 11. Global 28-day prevalence of VOIs (JN.1) and VUMs (JN.1.18, KP.2, KP.3, KP.3.1.1, LB.1, XEC and LP.8.1), 9 December 2024 to 5 January 2025*



* Reporting period to account for delay in sequence submission to GISAID.

+ Historical presence indicates countries previously reporting sequences of VOIs and VUMs but have not been reported within the period from 9 December 2024 to 5 January 2025.

Figure 12. The distribution of SARS-CoV-2 variants sequence data from different time periods

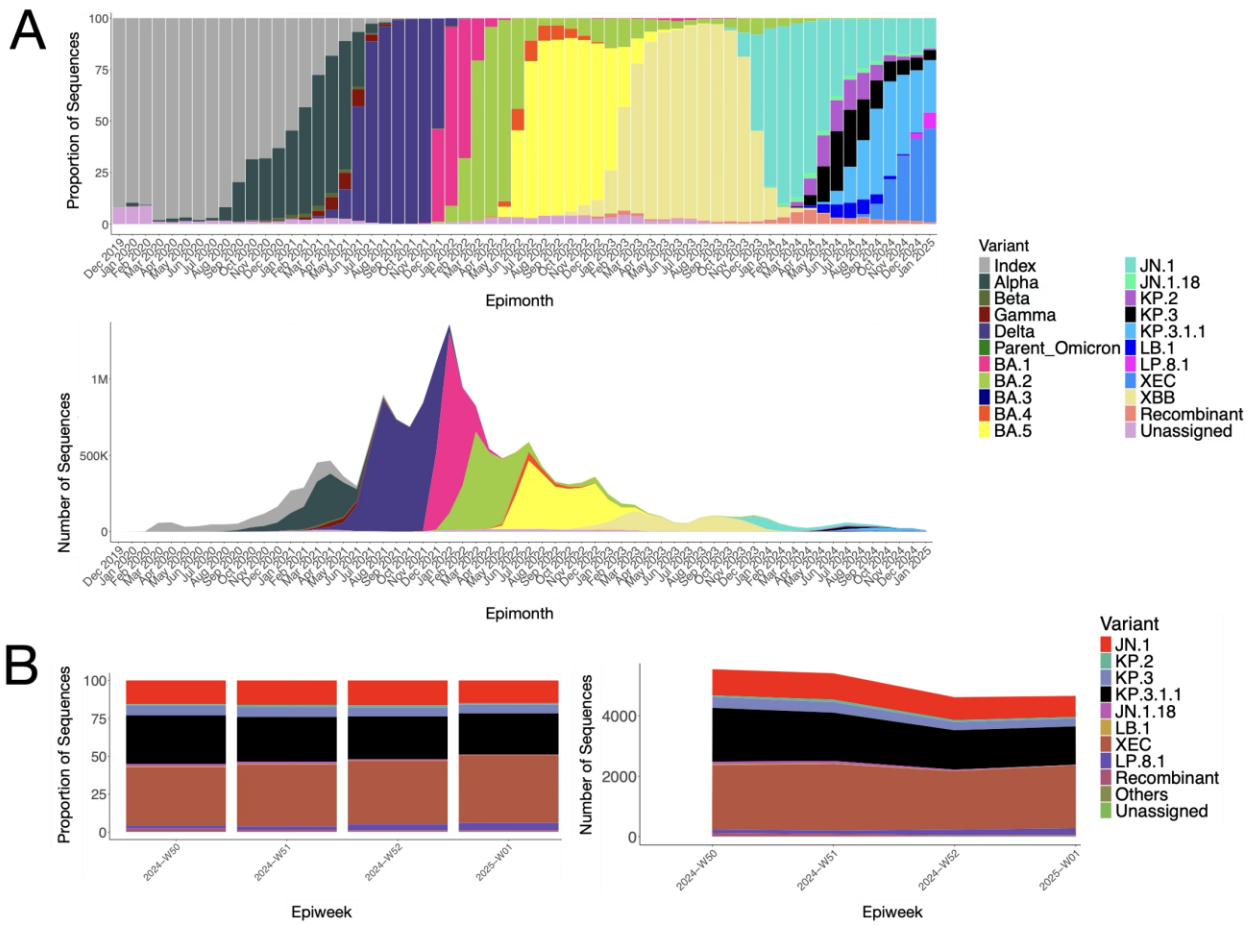


Figure 12. (**A**) The proportion (top panel) and number (bottom panel) of sequences belonging to each major SARS-CoV-2 variant in each month since the start of the pandemic. (**B**) The proportion (left panel) and number (right panel) of sequences belonging to each SARS-CoV-2 variant in each week from 9 December 2024 to 5 January 2025. The variants shown include all descendent lineages, except for the descendent lineage(s) that are listed separately, for example KP.3 includes all the lineages that descend from KP.3 with the exception of KP.3.1.1 and its descendent sublineages that are instead included within KP.3.1.1. The *Unassigned* category includes lineages pending for a PANGO lineage name designation, *Recombinant* includes all SARS-CoV-2 recombinant lineages not listed here, and the *Other* category includes lineages that are assigned but not listed here. Source: SARS-CoV-2 sequence data and metadata from GISAID, from 9 December 2024 to 5 January 2025, downloaded on 9th February 2025.

WHO regional overviews

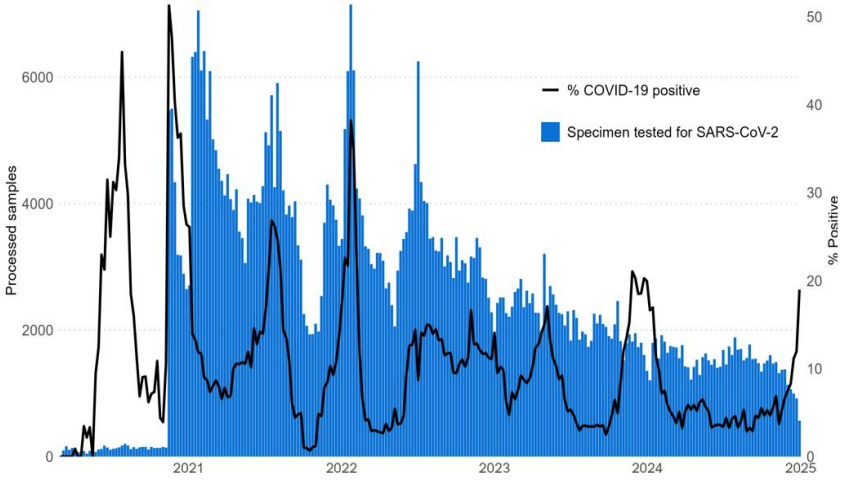
SAR-CoV-2 test positivity from sentinel sites and morbidity and mortality trends

African Region

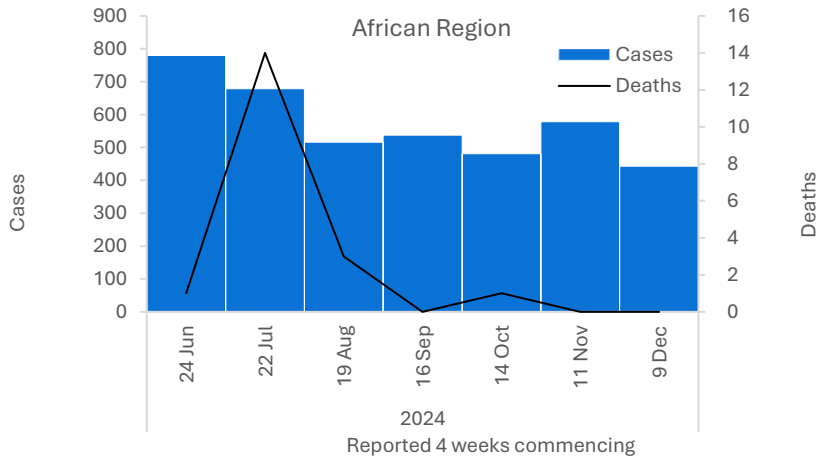
The SARS-CoV-2 weekly percent test positivity from sentinel and systematically conducted virological surveillance in the African Region changed from 6.2% to 5.3% across 18 countries who reported at least once during the four-week period. One country reported an increase of more than 2.5% in percent test positivity during the four-week reporting period: Burkina Faso (from 0% to 2.6%). Two countries showed elevated SARS-CoV-2 activity (10% or more) in the final week: South Africa (19%) and Mozambique (18%). During the reporting period, the weekly average number of specimens tested was 765.

The Region reported 443 new cases; a 23% decrease compared to the previous 28-day period. Six (12%) of the 50 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Kenya (10 vs three new cases; >100%), Democratic Republic of the Congo (18 vs six new cases; >100%), Mozambique (33 vs 13 new cases; >100%), Mali (three vs two new cases; +50%), Senegal (three vs two new cases; +50%), and Algeria (21 vs 15 new cases; +40%). The highest numbers of new cases were reported from Mauritius (287 new cases; 22.6 new cases per 100 000; -17%), Mozambique (33 new cases; <1 new case per 100 000; +154%), and South Africa (23 new cases; <1 new case per 100 000; -8%).

No new deaths were reported during the reporting period.



Source: Influenza and SARS-CoV-2 surveillance data from GISRS reported to FluNet; WHO



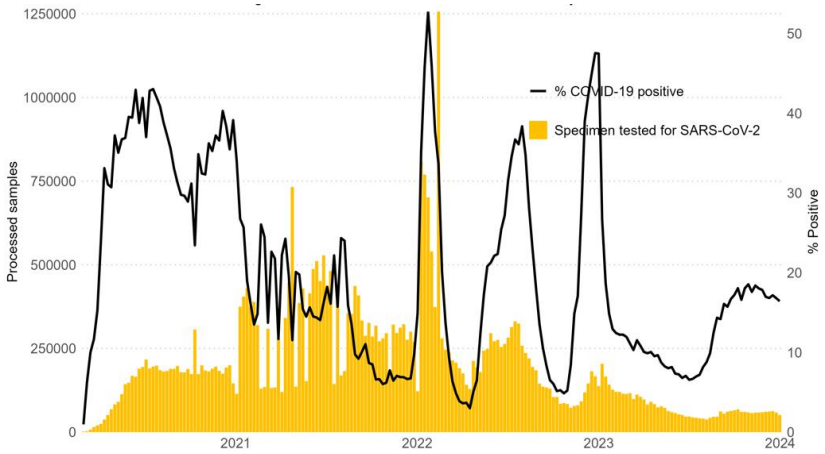
Updates from the African Region

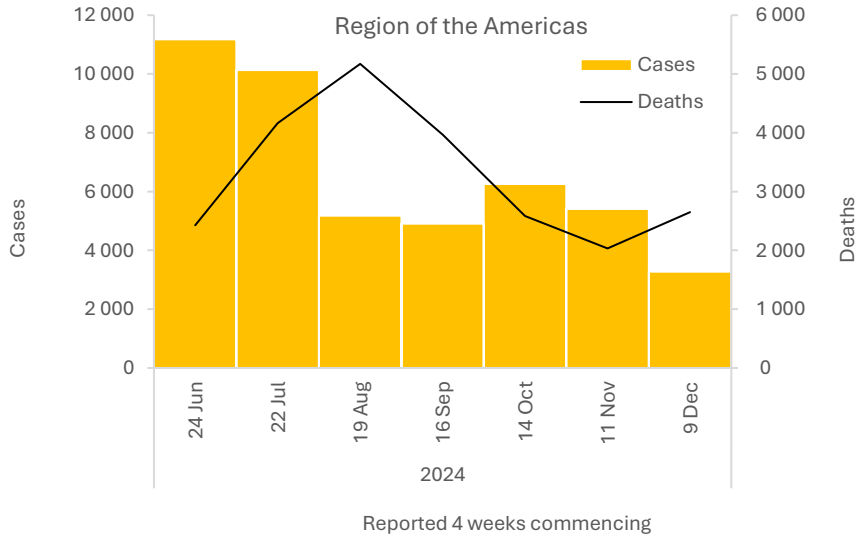
Region of the Americas

The SARS-CoV-2 weekly percent test positivity from sentinel and systematically conducted virological surveillance in the Region of the Americas changed from 9.9% to 9.1% across 26 countries who reported at least once during the four-week period. One country reported an increase of more than 2.5% in percent test positivity during the four-week reporting period: Paraguay (from 7.5% to 10.3%). Four countries showed elevated SARS-CoV-2 activity (10% or more) in the final week: Uruguay (22%), Brazil (14%), Chile (13%), and Paraguay (10%). During the reporting period, the weekly average number of specimens tested was 47 567.

The Region reported 3270 new cases, a 40% decrease as compared to the previous 28-day period. Three (5%) of the 56 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Ecuador (149 vs 70 new cases; >100%), Panama (36 vs 22 new cases; +64%), and Nicaragua (three vs two new cases; +50%). The highest numbers of new cases were reported from Chile (2168 new cases; 11.3 new cases per 100 000; -29%), Argentina (486 new cases; 1.1 new cases per 100 000; -67%), and Uruguay (243 new cases; 7 new cases per 100 000; -40%).

The number of new 28-day deaths in the Region increased by 30% as compared to the previous 28-day period, with 2649 new deaths reported. The highest numbers of new deaths were reported from the United States of America (2598 new deaths; <1 new death per 100 000; +32%), Chile (35 new deaths; <1 new death per 100 000; +17%), and Argentina (10 new deaths; <1 new death per 100 000; -47%).





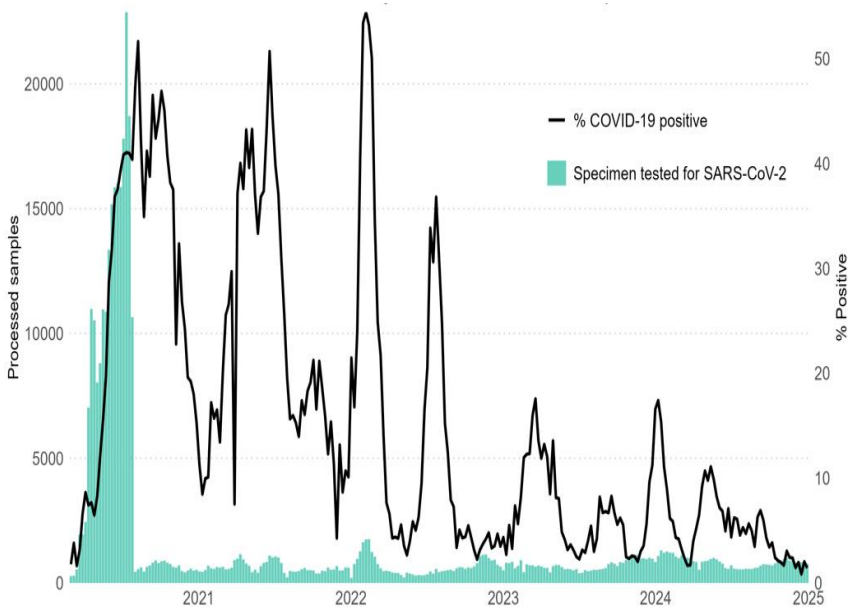
Source: Influenza and SARS-CoV-2 surveillance data from GISRS reported to FluNet; WHO

Updates from the Region of the Americas

Eastern Mediterranean Region

The SARS-CoV-2 weekly percent test positivity from sentinel and systematically conducted virological surveillance in the Eastern Mediterranean Region changed from 1.2% to 1.0% across 11 countries who reported at least once during the four-week period. No country reported an increase of more than 2.5% in percent test positivity during the four-week reporting period. No country showed elevated SARS-CoV-2 activity (10% or more) in the final week. During the reporting period, the weekly average number of specimens tested was 2620.

The Region no longer reports cases and deaths.



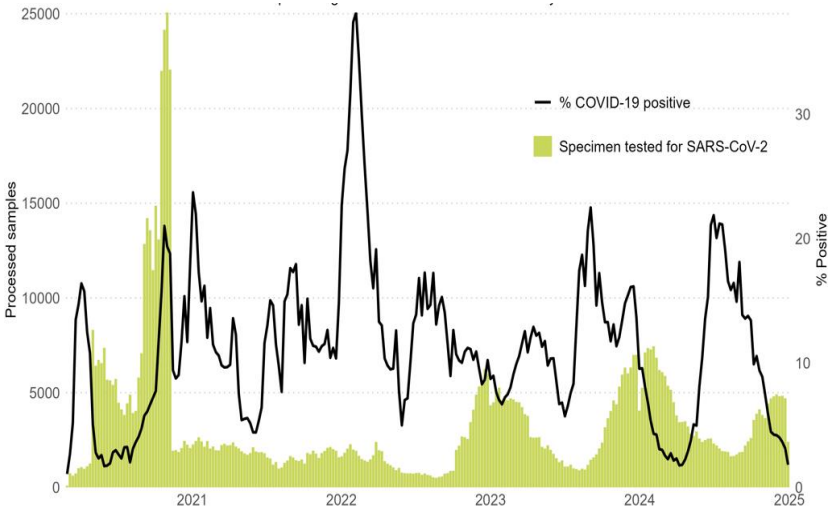
Source: Influenza and SARS-CoV-2 surveillance data from GISRS reported to FluNet; WHO

European Region

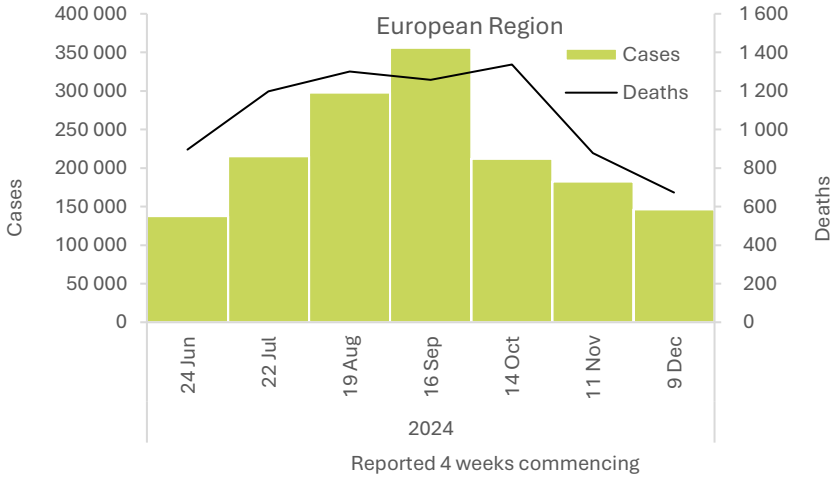
The SARS-CoV-2 weekly percent test positivity from sentinel and systematically conducted virological surveillance in the European Region changed from 3.4% to 2.0% across 38 countries who reported at least once during the four-week period. One country reported an increase of more than 2.5% in percent test positivity during the four-week reporting period: Slovenia (from 10.0% to 18.2%). Two countries showed elevated SARS-CoV-2 activity (10% or more) in the final week: Slovenia (18%) and Greece (15%). During the reporting period, the weekly average number of specimens tested was 4507.

The Region reported over 146 000 new cases, a 20% decrease as compared to the previous 28-day period. Six (10%) of the 62 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Portugal (583 vs 334 new cases; +75%), Cyprus (1 233 vs 792 new cases; +56%), Estonia (821 vs 557 new cases; +47%), Bosnia and Herzegovina (89 vs 61 new cases; +46%), Sweden (2 896 vs 2 324 new cases; +25%), and Ireland (679 vs 551 new cases; +23%). The highest numbers of new cases were reported from the Russian Federation (93 541 new cases; 64.1 new cases per 100 000; -21%), Greece (10 065 new cases; 93.9 new cases per 100 000; -12%), and Italy (6660 new cases; 11.2 new cases per 100 000; -25%).

The number of new 28-day deaths in the Region decreased by 23% as compared to the previous 28-day period, with 673 new deaths reported. The highest numbers of new deaths were reported from the Russian Federation (192 new deaths; <1 new death per 100 000; -5%), Sweden (167 new deaths; 1.6 new deaths per 100 000; -1%), and Italy (117 new deaths; <1 new death per 100 000; -45%).



Source: Influenza and SARS-CoV-2 surveillance data from GISRS reported to FluNet; WHO



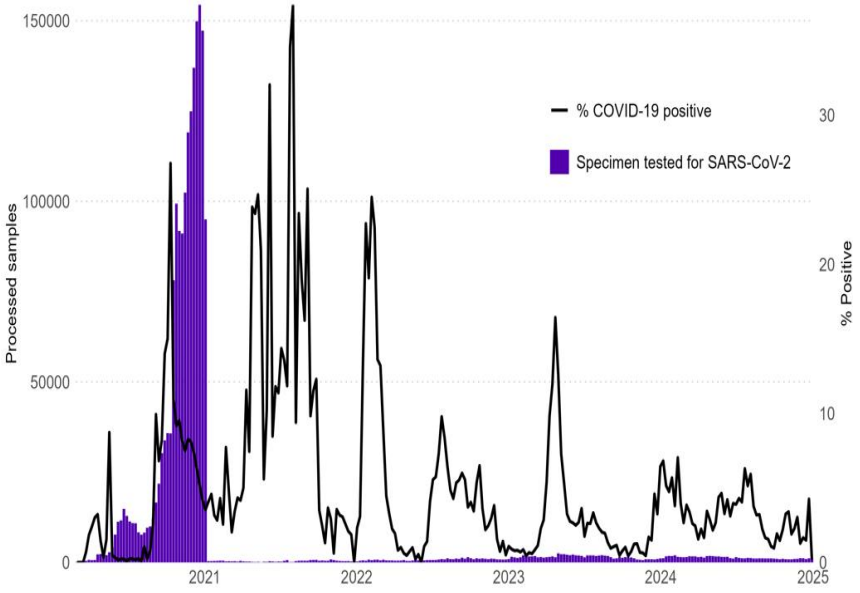
Updates from the European Region

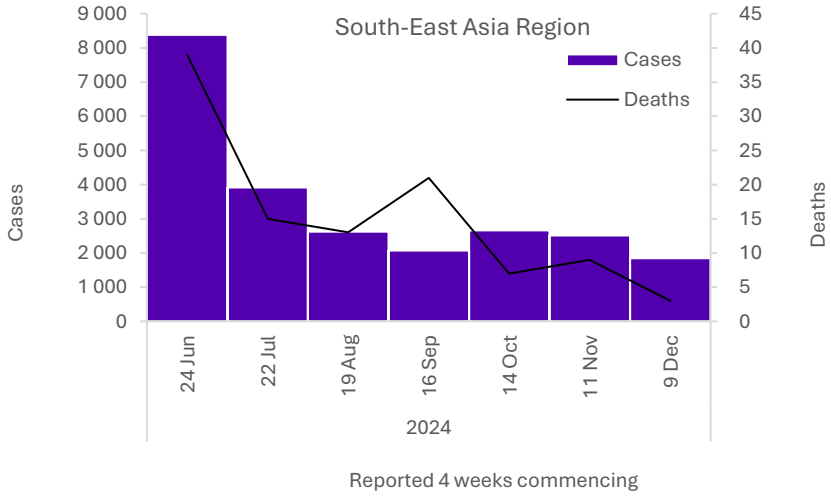
South-East Asia Region

The SARS-CoV-2 weekly percent test positivity from systematically conducted virological surveillance in the South-East Asia Region changed from 2.6% to 2.3% across seven countries who reported at least once during the four-week period. One country reported an increase of more than 2.5% in percent test positivity during the four-week reporting period: Maldives (from 3.1% to 5.9%). One country showed elevated SARS-CoV-2 activity (10% or more) in the final week: Indonesia (13%). During the reporting period, the weekly average number of specimens tested was 1219.

The Region reported 1846 new cases, a 26% decrease as compared to the previous 28-day period. No country has reported increases in new cases of 20% or greater compared to the previous 28-day period. The highest numbers of new cases were reported from Thailand (1597 new cases; 2.3 new cases per 100 000; -24%), Indonesia (163 new cases; <1 new case per 100 000; -11%), and India (52 new cases; <1 new case per 100 000; -70%).

The number of new 28-day deaths in the Region decreased by 67% as compared to the previous 28-day period, with 3 new deaths reported. The highest numbers of new deaths were reported from and India (3 new deaths; <1 new death per 100 000; similar to the previous 28-day period).





Source: *Influenza and SARS-CoV-2 surveillance data from GISRS reported to FluNet; WHO*

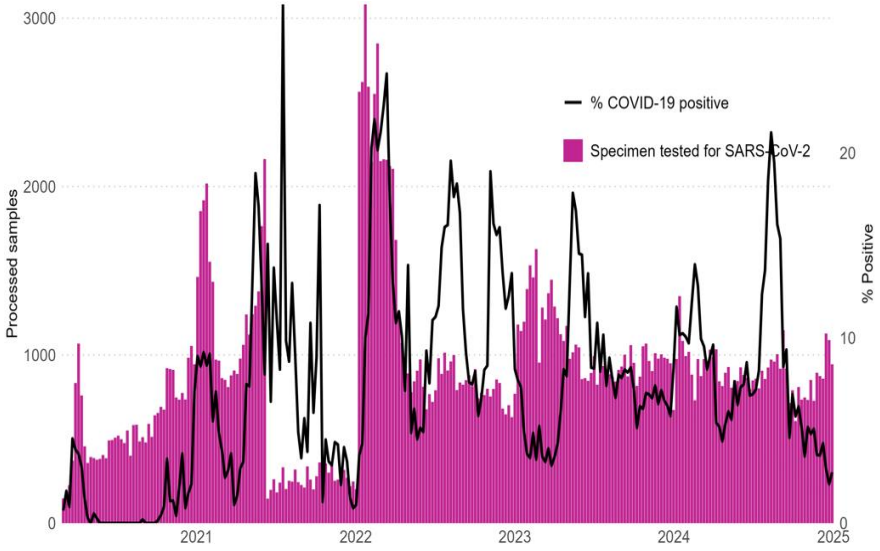
Updates from the South-East Asia Region

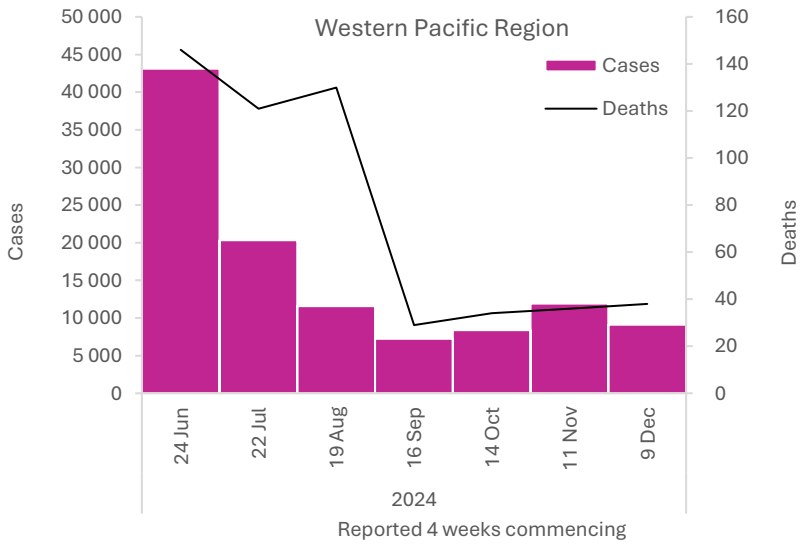
Western Pacific Region

The SARS-CoV-2 weekly percent test positivity from systematically conducted virological surveillance in the Western Pacific Region changed from 4.4% to 4.8% across eight countries who reported at least once during the four-week period. One country reported an increase of more than 2.5% in percent test positivity during the four-week reporting period: New Caledonia (from 4.3% to 11.6%). Two countries showed elevated SARS-CoV-2 activity (10% or more) in the final week: Papua New Guinea (15%) and New Caledonia (12%). During the reporting period, the weekly average number of specimens tested was 2436.

The Region reported 9127 new cases, a 23% decrease as compared to the previous 28-day period. Two (6%) of the 35 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in China (302 vs 181 new cases; +67%), and Brunei Darussalam (585 vs 387 new cases; +51%). The highest numbers of new cases were reported from Malaysia (4167 new cases; 12.9 new cases per 100 000; -23%), New Zealand (4072 new cases; 84.4 new cases per 100 000; -31%), and Brunei Darussalam (585 new cases; 133.7 new cases per 100 000; +51%).

The number of new 28-day deaths in the Region increased by 6% as compared to the previous 28-day period, with 38 new deaths reported. The highest numbers of new deaths were reported from New Zealand (28 new deaths; <1 new death per 100 000; +27%) and China (10 new deaths; <1 new death per 100 000; -23%).





Source: Influenza and SARS-CoV-2 surveillance data from GISRS reported to FluNet; WHO

Updates from the Western Pacific Region

Annex 1. Data, table, and figure notes

Data presented are based on official laboratory-confirmed COVID-19 cases and deaths reported to WHO by country/territories/areas, largely based upon WHO case definitions and surveillance guidance. While steps are taken to ensure accuracy and reliability, all data are subject to continuous verification and change, and caution must be taken when interpreting these data as several factors influence the counts presented, with variable underestimation of true case and death incidences, and variable delays to reflecting these data at the global level. Some countries (e.g., USA) are only reporting deaths and hospitalizations but not cases or vice versa and they might not necessarily be the same countries, and therefore number of deaths or hospitalizations may be greater than the cases in some regions (e.g., Region of the Americas)

Case detection, inclusion criteria, testing strategies, reporting practices, and data cut-off and lag times differ between countries/territories/areas. In some instances, reporting frequencies between national and subnational level might be different and retrospectively completed. Differences are to be expected between information products published by WHO, national public health authorities, and other sources.

A record of historic data adjustment is available upon request by emailing epi-data-support@who.int. Please specify the countries of interest, time period, and purpose of the request/intended usage. Prior situation reports will not be edited; see covid19.who.int for the most up-to-date data.

'Countries' may refer to countries, territories, areas or other jurisdictions of similar status. The designations employed, and the presentation of these materials, do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, 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. Countries, territories, and areas are arranged under the administering WHO region. The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted; the names of proprietary products are distinguished by initial capital letters.

Annex 2. SARS-CoV-2 variants assessment and classification

WHO, in collaboration with national authorities, institutions and researchers, routinely assesses if variants of SARS-CoV-2 alter transmission or disease characteristics, or impact the effectiveness of vaccines, therapeutics, diagnostics or public health and social measures (PHSM) applied to control disease spread. Potential variants of concern (VOCs), variants of interest (VOIs) or variants under monitoring (VUMs) are regularly assessed based on the risk posed to global public health.

The classifications of variants will be revised as needed to reflect the continuous evolution of circulating variants and their changing epidemiology. Criteria for variant classification, and the lists of currently circulating and previously circulating VOCs, VOIs and VUMs, are available on the WHO Tracking SARS-CoV-2 variants website. National authorities may choose to designate other variants and are strongly encouraged to investigate and report newly emerging variants and their impact.

WHO continues to monitor SARS-CoV-2 variants, including descendent lineages of VOCs, to track changes in prevalence and viral characteristics. The current trends describing the circulation of Omicron descendent lineages should be interpreted with due consideration of the limitations of current COVID-19 surveillance. These include differences in sequencing capacity and sampling strategies between countries, changes in sampling strategies over time, reductions in tests conducted and sequences shared by countries, and delays in uploading sequence data to GISAID.

Annex 3. SARS-CoV-2 test positivity

SARS-CoV-2 test positivity, as detected in integrated sentinel surveillance as part of the Global Influenza Surveillance and Response System (GISRS) and reported to FluNet, has fast become the most important measure of the circulation of the virus in communities with reduced surveillance activities.

Data on respiratory specimens tested for SARS-CoV-2 and reported to FluNet include results from sentinel surveillance and other types of systematically conducted virological surveillance, depending on the country. The source to use was determined in collaboration with WHO regional Offices and requesting countries were included in the report and is available on RespiMart here.