

COVID-19 Weekly Epidemiological Update

Edition 158 published 1 September 2023

In this edition:

- [Global overview](#)
- [Hospitalizations and ICU admissions](#)
- [SARS-CoV-2 variants of interest and variants under monitoring](#)
- [Vaccine effectiveness of primary series and booster vaccination against the Omicron and its descendant lineages](#)
- [WHO regional overviews](#)

Please note that this is the last edition of the COVID-19 Weekly Epidemiological Update. Moving forward, as WHO transitions its COVID-19 surveillance from an emergency response to long-term COVID-19 disease prevention, control and management, we will be providing updates every four-weeks, with the next edition set to be published on 28 September 2023. Disaggregated data will still be accessible on the [WHO COVID-19 dashboard](#), where the full dataset is available for download. WHO has also recently updated COVID-19 surveillance reporting requirements for Member States, which can be found [here](#).

Global overview

Data as of 27 August 2023

In the last 28-day period (31 July to 27 August 2023), over 1.4 million new COVID-19 cases and over 1800 deaths were reported to WHO, an increase of 38% and a decrease of 50%, respectively, compared to the previous 28 days (Figure 1, Table 1). As of 27 August 2023, over 770 million confirmed cases and over 6.9 million deaths have been reported globally.

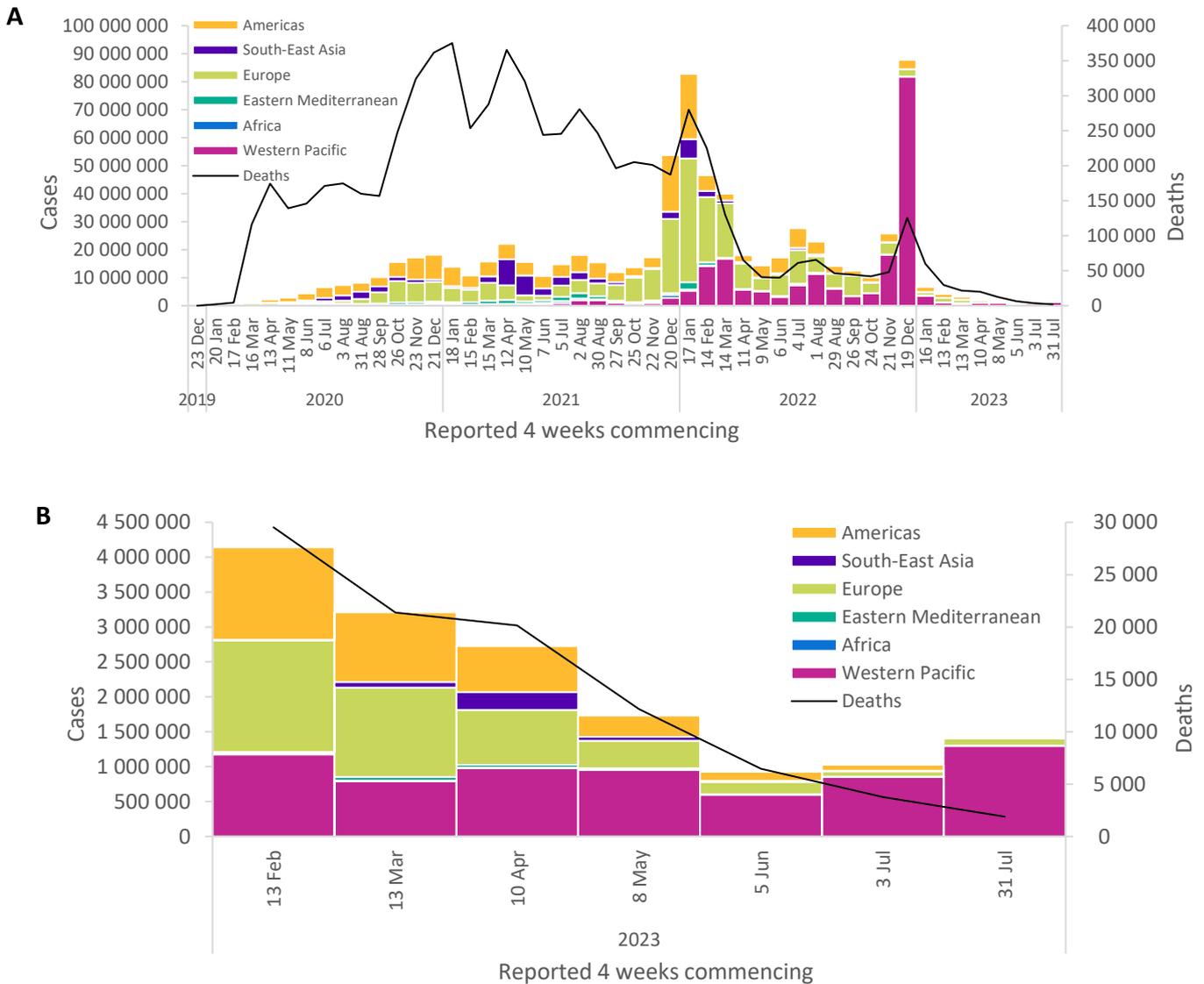
Three WHO regions reported increases in the number of cases, whereas two regions reported decreases. While three WHO regions reported decreases in the number of deaths, the Eastern Mediterranean and the Western Pacific regions reported increases in deaths. In this WEU edition, global figures include all available data from the Region of the Americas since the start of the pandemic up to 6 August 2023 reported through COVID-19 specific channels. However, 28-day comparisons for this Region and its Member States are presented using the integrated respiratory viruses surveillance data reported through FluNet and FluID platforms. Additional updates from this Region can be found in the [Influenza and Other Respiratory Virus weekly report](#).

As some/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 the 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 boosters to high-risk groups, improvements in ventilation, and regular communication.

Currently, reported cases do not accurately represent infection rates due to the reduction in testing and reporting globally. During this 28-day period, 39% (92 of 234) of countries reported at least one case to WHO – a proportion that has been declining since mid-2022. It is important to note that this statistic does not reflect the actual number of countries where cases exist. Additionally, data from previous weeks are continuously being updated to incorporate retrospective changes in reported COVID-19 cases and deaths made by countries. Data presented in this report are therefore incomplete and should be interpreted in light of 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. Global and national data on SARS-CoV-2 PCR percent positivity are available on [WHO’s integrated dashboard](#) provided by the Global Influenza Programme. Recent data (epidemiological week 33) show that the SARS-CoV-2 PCR percent positivity rate from reporting countries averages approximately 10%.

Figure 1. COVID-19 cases reported by WHO Region, and global deaths by 28-day intervals, as of 27 August 2023 (A); 13 February to 27 August 2023 (B)§**



**See [Annex 1: Data, table, and figure note](#)

§ The data included from the Region of the Americas are until 6 August 2023.

At the regional level, the number of newly reported cases within the 28-day period has increased across three of the five WHO regions: the European Region (+39%), the Western Pacific Region (+52%), and the Eastern Mediterranean Region (+113%); while case numbers decreased in two WHO regions: the African Region (-76%), and the South-East Asia Region (-48%). The number of newly reported deaths within the 28-day period has decreased across three regions: the African Region (-73%), the South-East Asia Region (-51%), and

the European Region (-43%); while death numbers increased in two WHO regions: the Eastern Mediterranean Region (+33%), and the Western Pacific Region (+9%).

At the country level, the highest numbers of new cases reported within the 28-day period were from the Republic of Korea (1 296 710 new cases; +73%), Italy (26 998 new cases; +81%), the United Kingdom (26 264 new cases; +89%), Australia (20 628 new cases; -33%), and Singapore (20 432 new cases; -12%). The highest numbers of new 28-day deaths were reported from the Republic of Korea (596 new deaths; +199%), Italy (192 new deaths; +45%), the Russian Federation (158 new deaths; -37%), Australia (145 new deaths; -62%), and China (135 new deaths; +193%).

Table 1. Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 27 August 2023**

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 (%)
Western Pacific ⁱ	1 298 782 (92%)	52%	206 823 836 (27%)	1 092 (58%)	9%	416 682 (6%)
Europe	104 681 (7%)	39%	275 912 918 (36%)	682 (36%)	-43%	2 247 113 (32%)
South-East Asia	3 780 (<1%)	-48%	61 201 773 (8%)	54 (3%)	-51%	806 661 (12%)
Eastern Mediterranean	3 139 (<1%)	113%	23 388 656 (3%)	28 (1%)	33%	351 395 (5%)
Americas [§]	1 122 (<1%)	NA [¥]	193 210 684 (25%)	28 (1%)	NA	2 958 886 (43%)
Africa	746 (<1%)	-76%	9 547 082 (1%)	4 (<1%)	-73%	175 423 (3%)
Global	1 412 250 (100%)	38%	770 085 713 (100%)	1 888 (100%)	-50%	6 956 173 (100%)

*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.

[§] The data from the Region of the Americas are until 6 August 2023 which will impact the interpretation of the Regional and Global trends.

[¥] NA represents not available

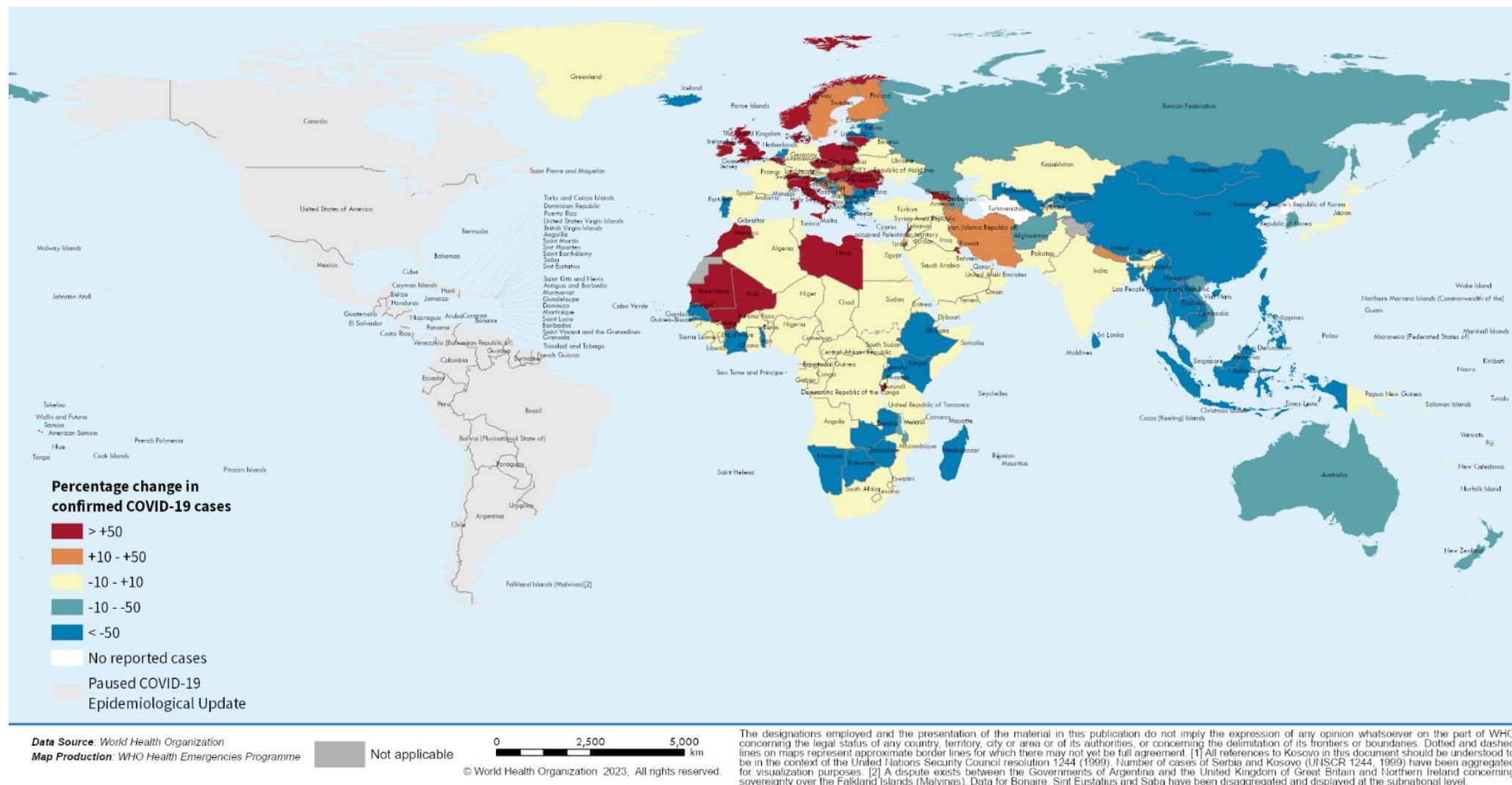
ⁱ Note: There was a retrospective reconciliation of data that resulted in a deduction of over 65 000 cases of the Western Pacific Region over the period 31 July - 27 August 2023. This explains why the regional total is lower than the sum of the country data reflected here.

**See [Annex 1: Data, table, and figure notes](#)

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

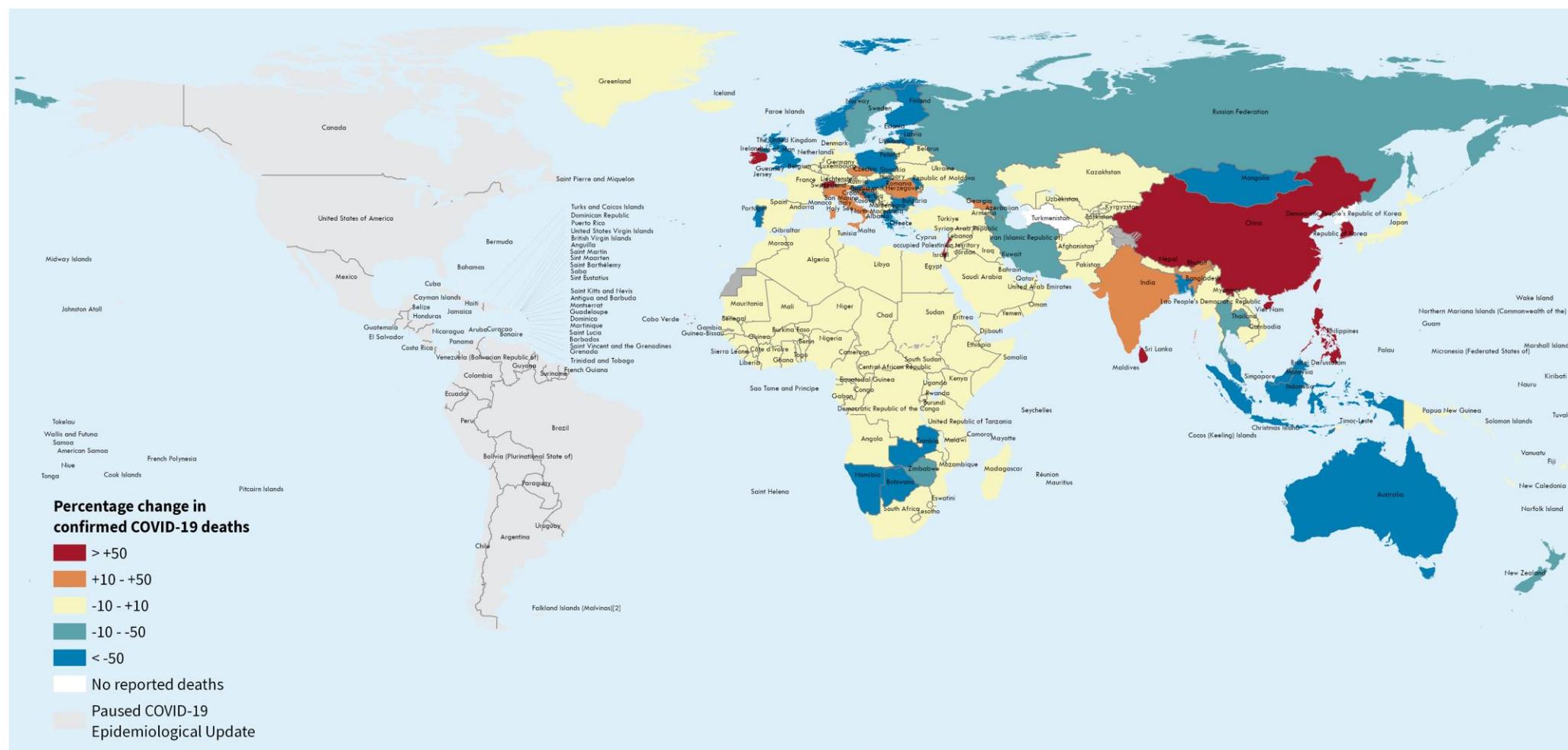
- [WHO COVID-19 Dashboard](#)
- [WHO Monthly Operational Update and past editions of the Weekly Epidemiological Update on COVID-19](#)
- [WHO COVID-19 detailed surveillance data dashboard](#)
- [WHO COVID-19 policy briefs](#)

Figure 2. Percentage change in confirmed COVID-19 cases over the last 28 days relative to the previous 28 days, as of 27 August 2023**



**See [Annex 1: Data, table, and figure notes](#)

Figure 3. Percentage change in confirmed COVID-19 deaths over the last 28 days relative to the previous 28 days, as of 27 August 2023**



Data Source: World Health Organization

Map Production: WHO Health Emergencies Programme

Not applicable

0 2,500 5,000 km

© World Health Organization 2023. All rights reserved.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. [1] All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). Number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes. [2] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas). Data for Bonaire, Sint Eustatius and Saba have been disaggregated and displayed at the subnational level.

**See [Annex 1: Data, table, and figure notes](#)

Hospitalizations and ICU admissions

At the global level, during the analysed 28-day period (24 July to 20 August 2023), 27 of 234 countries reported to WHO a total of 55 728 new hospitalizations, and 23 of 234 countries reported to WHO a total of 615 new intensive care unit (ICU) admissions (Figure 4). This represents a 40% increase and 33% decrease in hospitalizations and ICU admissions, respectively, compared to the previous 28-day period (26 June to 23 July 2023). Please note that the absence of reported data from other countries to the 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.

Globally, during the past 28 days, 27 (12%) countries reported data to WHO on new hospitalizations at least once (Figure 5). Among them, the European Region had the highest proportion of countries reporting (16 countries; 26%), followed by the South-East Asia Region (two countries; 20%), the Western Pacific Region (three countries; 9%), the Region of the Americas (four countries; 7%), the Eastern Mediterranean Region (one country; 5%), and the African Region (one country; 2%). The proportion of countries that consistentlyⁱ reported new hospitalizations for the period was 6% (15 countries) (Table 2).

Among the 15 out of 234 countries consistently reporting new hospitalizations to WHO, six countries registered an increase of 20% or greater in hospitalizations during the past 28 days compared to the previous 28-day period: Ireland (1350 vs 474; +185%), Kyrgyzstan (16 vs six; +167%), Greece (1994 vs 912; +119%), the United States of America (44 911 vs 26 985; +66%), Bangladesh (987 vs 743; +33%), and the Netherlands (183 vs 143; +28%). The highest numbers of new hospitalizations were reported from the United States of America (44 911 vs 26 985; +66%), Greece (1994 vs 912; +119%), and Ireland (1350 vs 474; +185%).

Globally, in the past 28 days, 23 (10%) countries reported data to WHO on new ICU admissions at least once (Figure 5). Among them, the European Region had the highest proportion of reporting countries (14 countries; 23%), followed by the Western Pacific Region (five countries; 14%), the South-East Asia Region (one country; 10%), and the Region of the Americas (two countries; 4%). The African Region and the Eastern Mediterranean Region did not report ICU data during the period. The proportion of countries that consistently reported new ICU admissions for the period was 6% (15 countries) (Table 2).

Among the 15 countries consistently reporting new ICU admissions to WHO, six countries showed an increase of 20% or greater in new ICU admissions during the past 28 days compared to the previous 28-day period: Ireland (21 vs seven; +200%), Malta (eight vs four; +100%), Singapore (11 vs six; +83%), Sweden (16 vs nine; +78%), Greece (31 vs 18; +72%), and the Netherlands (13 vs eight; 63%). The highest numbers of new ICU admissions were reported from Brazil (364 vs 577; -37%), Australia (71 vs 125; -43%), and Italy (45 vs 57; -21%).

ⁱ “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).

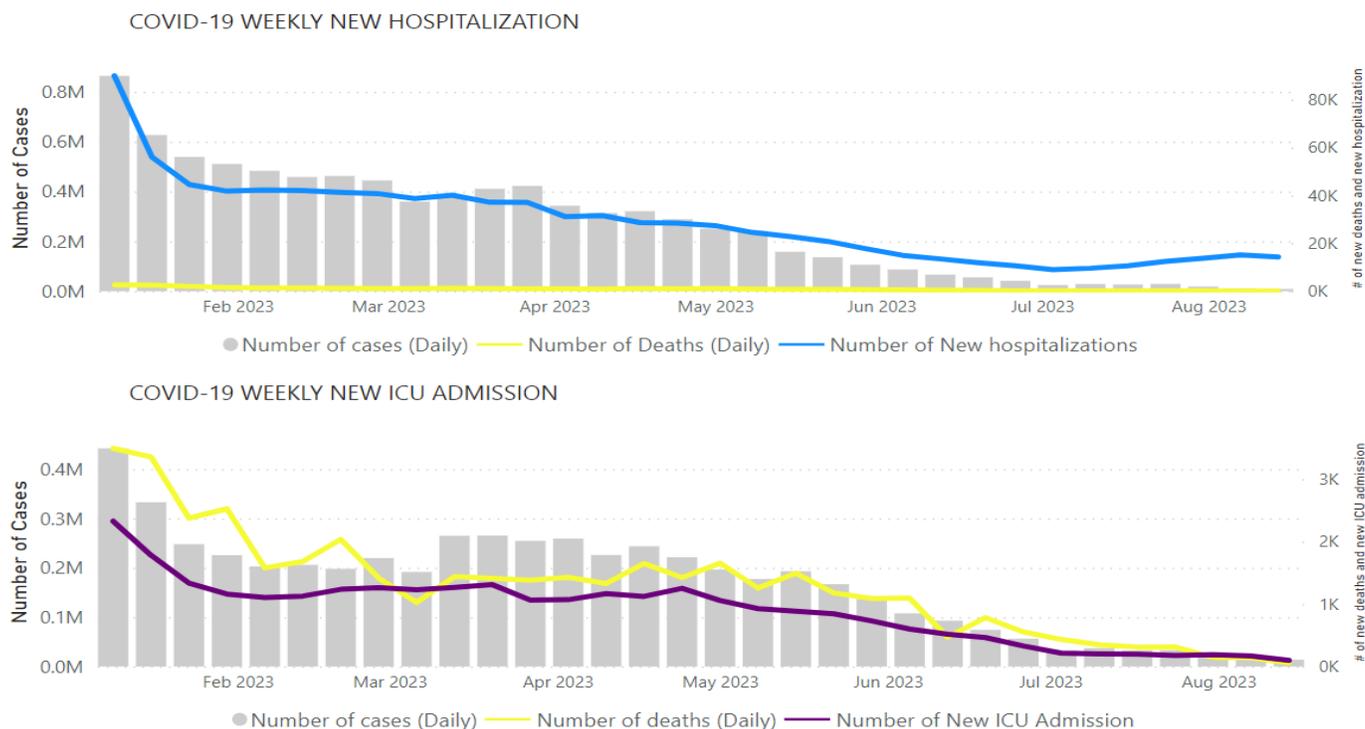
Table 2. New hospitalizations and ICU admissions in the last 28 days (with percent change) by WHO Region, 24 July to 20 August 2023 compared to 26 June to 23 July 2023

Region	New hospitalizations from countries that reported consistently in the last two 28-day periods			New ICU admissions from countries that reported consistently in the last two 28-day periods		
	Number of countries* (percentage)	Number of new hospitalizations	Percent change	Number of countries* (percentage)	Number of new ICU admissions	Percent change
Africa	0/50 (<1%)	NA**	NA	0/50 (<1%)	NA	NA
Americas	3/56 (5%)	46 762	59%	2/56 (4%)	373	-37%
Eastern Mediterranean	0/22 (<1%)	NA	NA	0/22 (<1%)	NA	NA
European	10/61 (16%)	5 027	36%	10/61 (16%)	138	29%
South-East Asia	1/10 (10%)	987	33%	0/10 (<1%)	NA	NA
Western Pacific	1/35 (3%)	376	-28%	3/35 (9%)	82	-37%
Global	15/234 (6%)	53 152	55%	15/234 (6%)	593	-28%

* To be able to compare two periods, only the countries reported consistently in both the last and previous 28 days periods are included in the table

** NA represents not available

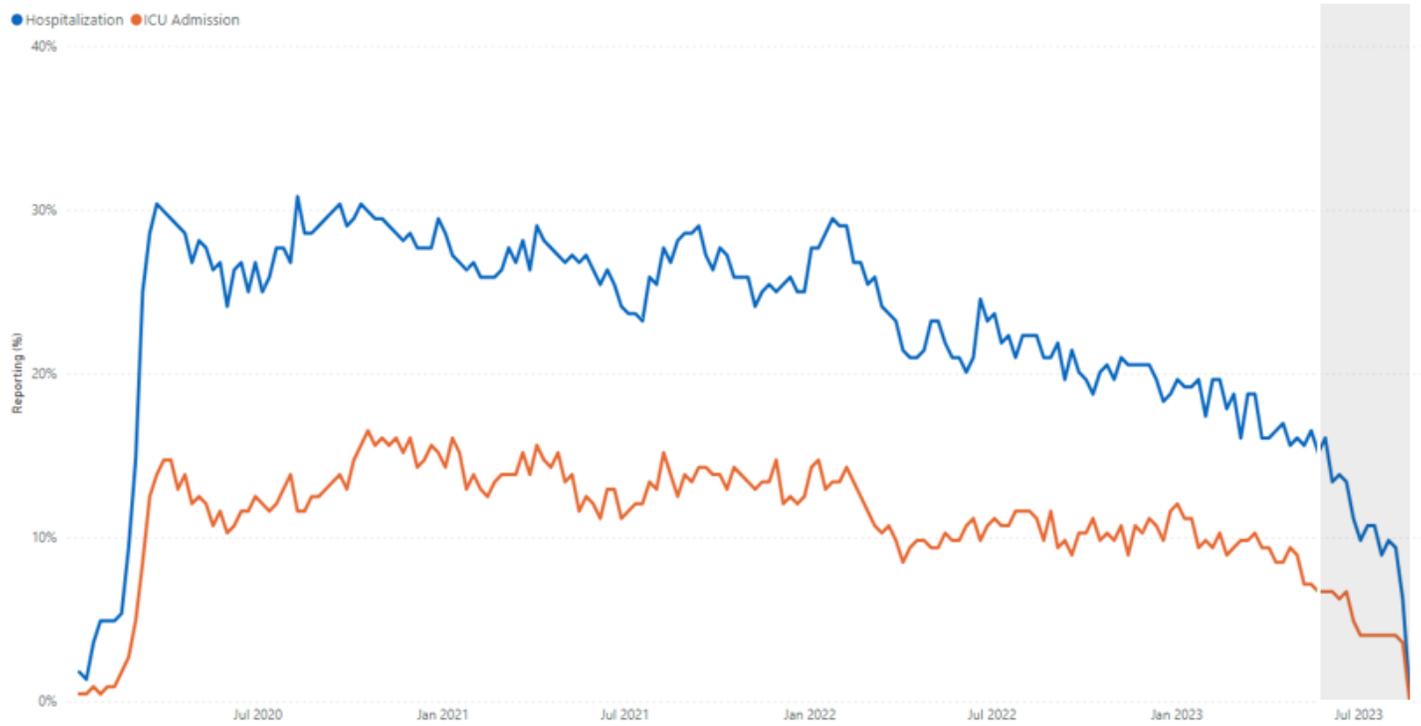
Figure 4. COVID-19 cases, deaths, hospitalizations, and ICU admissions reported weekly to WHO, as of 20 August 2023



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

Source: WHO Detailed Surveillance Dashboard

Figure 5. Weekly proportion of countries reporting new hospitalizations and ICU admissions, epidemiological week 5 of 2020 to week 33 of 2023



Note: Recent weeks are subject to reporting delays and should not be interpreted as a declining trend.

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

Geographic spread and prevalence

Globally, from 31 July to 27 August 2023 (28 days), 12 445 SARS-CoV-2 sequences were shared through GISAID. This is a decrease in comparison to the 35 104 SARS-CoV-2 sequences shared in the previous 28-day period (3 to 30 July 2023). This decrease should be interpreted with caution as the sequence data in GISAID are subject to ongoing, retrospective updates due to delays in submission. This is particularly relevant in light of the persisting decline in the submission of sequences.

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

- Three variants of interest (VOIs); XBB.1.5, XBB.1.16 and EG.5.
- Seven variants under monitoring (VUMs); BA.2.75, BA.2.86, CH.1.1, XBB, XBB.1.9.1, XBB.1.9.2 and XBB.2.3.

Globally, EG.5 is now the most prevalent VOI, accounting for 26.1% of sequences in epidemiological week 32 (7 to 13 August 2023); it has surpassed XBB.1.16, which had a prevalence of 22.7% in the same week. EG.5 showed a noticeable increase in prevalence when compared to epidemiological week 28 (10 to 16 July 2023), when it accounted for 15.4% of sequenced samples (Table 3), whereas XBB.1.16 showed a stable trend in the reporting period. XBB.1.16 and EG.5 have been reported from 109 and 57 countries, respectively (Table 3). XBB.1.5, reported from a total of 124 countries globally, continues to show a declining trend, accounting for 10.2% of sequences in week 32 compared to 12.2% of sequences in week 28 (Table 3).

BA.2.86 was classified as a VUM on 17 August 2023. As of 30 August 2023 (9:00 CET), 21 sequences of this variant have been reported from seven countries (five in the European Region, one in the African Region, and one in the Region of the Americas) and uploaded on GISAID. One case had travel history from a country in the Western Pacific Region, where BA.2.86 has not yet been reported. To date, no deaths have been reported to WHO among the cases detected with BA.2.86. The potential impact of the high number of mutations in BA.2.86 is presently unknown and is under assessment. WHO continues to call for enhanced surveillance, sequencing, and reporting of SARS-CoV-2 variants alongside clinical metadata as the virus continues to circulate and evolve.

Table 3 shows the number of countries reporting the VOIs and VUMs and their prevalence from week 28 to week 32. The VOI and the VUMs that have shown **increasing trends are highlighted in orange**, those that have remained **stable are highlighted in blue**, while those with **decreasing trends are highlighted in green**.

During the last five weeks, among the VUMs, BA.2.75 and XBB.1.9.2 have shown decreasing trends in prevalence, whilst all other VUMs have shown stable trends during the same reporting period (Table 3).

Table 3. Weekly prevalence of SARS-CoV-2 VOIs and VUMs, epidemiological week 28 to week 32 of 2023

Lineage	Countries [§]	Sequences [§]	2023-28	2023-29	2023-30	2023-31	2023-32
VOIs							
XBB.1.5*	124	269 726	12.2	11.5	10.3	9.7	10.2
XBB.1.16*	109	52 868	22.9	23.8	22.7	24.5	22.7
EG.5*	57	12 895	15.4	18.6	22.1	22.9	26.1
VUMs							
BA.2.75*	125	123 914	2.3	1.6	1.4	1.3	0.9
BA.2.86 [†]	7	21					
CH.1.1*	96	43 112	0.6	0.7	0.7	0.9	0.8
XBB*	130	70 196	6.5	6.6	6.0	6.1	5.0
XBB.1.9.1*	107	58 606	12.6	12.4	12.7	11.8	13.2
XBB.1.9.2*	86	27 671	7.1	6.4	5.9	5.2	4.6
XBB.2.3*	76	10 754	4.9	5.0	5.4	4.9	5.5
Unassigned	95	152 492	3.3	1.8	0.7	0.1	0.1
Other ⁺	209	6 772 234	11.4	11.1	11.5	12.1	10.7

[§] Number of countries and sequences are since the emergence of the variants.

* Includes descendant lineages, except those individually specified elsewhere in the table. For example, XBB* does not include XBB.1.5, XBB.1.16, EG.5, XBB.1.9.1, XBB.1.9.2, and XBB.2.3.

⁺ "Other" represents other circulating lineages excluding the VOI, VUMs, BA.1*, BA.2*, BA.3*, BA.4*, BA.5*. Due to delays in or retrospective assignment of variants, caution should be taken when interpreting the prevalence of the "Other" category.

[†] Prevalence for BA.2.86 cannot be calculated due to the very small numbers of sequences.

Figure 6. The number and percentage of SARS-CoV-2 sequences, from 1 February to 15 August 2023

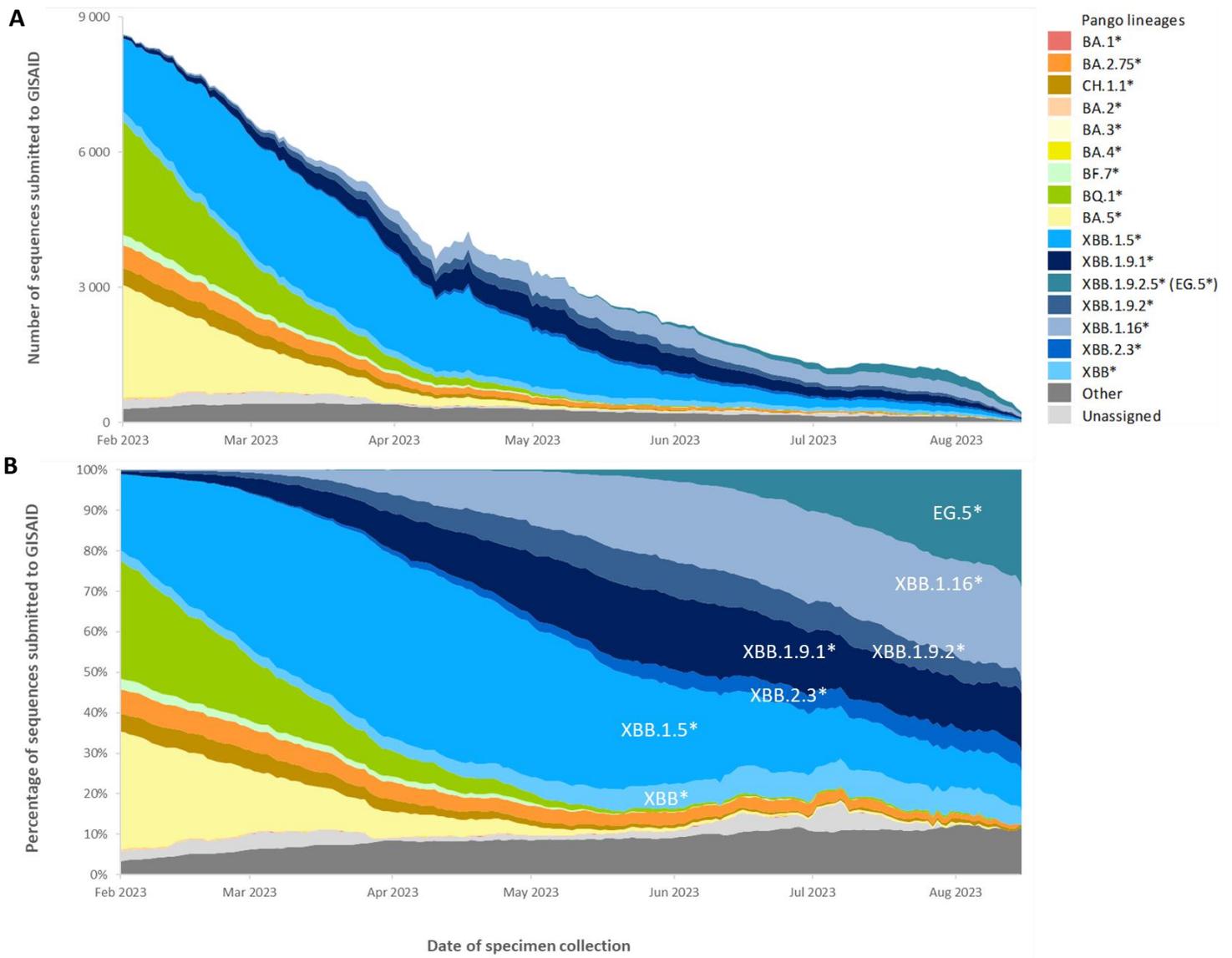


Figure 6. Panel A shows the number, and **Panel B** the percentage, of all circulating variants since February 2023. Omicron sister-lineages and additional Omicron VOC descendent lineages under further monitoring are shown. *BA.1**, *BA.2**, *BA.3**, *BA.4** and *BA.5** (* indicates inclusion of descendent lineages) include all BA.1, BA.2, BA.3, BA.4 and BA.5 pooled descendent lineages, except currently circulating variants shown individually. The *Unassigned* category includes lineages pending for a PANGO lineage name, whereas the *Other* category includes lineages that are assigned but not listed in the legend. Source: SARS- CoV-2 sequence data and metadata from GISAID, from 1 February to 15 August 2023.

Additional resources

- [Tracking SARS-CoV-2 Variants](#)
- [WHO statement on updated tracking system on SARS-CoV-2 variants of concern and variants of interest](#)
- [WHO XBB.1.5 Updated Risk Assessment, 20 June 2023](#)
- [WHO XBB.1.16 Updated Risk Assessment, 5 June 2023](#)
- [WHO EG.5 Initial Risk Evaluation, 9 August 2023](#)

Vaccine effectiveness of primary series and booster vaccination against the Omicron and its descendant lineages

Vaccine Effectiveness

The [Forest plots](#) displaying the effectiveness of COVID-19 vaccines against the Omicron variant of concern (VOC) are available on [View-hub.org](#) and are updated regularly (last updated on 29 August 2023). All data are collected as part of an ongoing systematic review of COVID-19 vaccine effectiveness (VE) studies (methods described [here](#)). COVID-19 VE results are summarized in the following plots, where data are available:

- VE of primary series and first booster dose by vaccine for all vaccines
- VE for various sub-populations of interest
- Absolute and relative VE of a second booster dose (for more information on interpreting relative VE, see the special focus on relative VE from the [29 June 2022 Weekly Epidemiological Update](#))
- Duration of VE for primary series, first booster dose, and second booster dose
- Absolute VE of bivalent vaccines given as a first, second, or third booster dose

Emerging evidence on VE of mRNA bivalent vaccines, which contain both the index virus and the Omicron strain, show that a bivalent vaccine given as a first, second, or third booster dose improves protection against *symptomatic* and *severe disease* compared to unvaccinated persons (i.e., absolute VE); in addition, persons receiving an mRNA bivalent vaccine given as a second or third booster dose have additional protection compared to persons who had received a monovalent ancestral-strain mRNA vaccine as a first or second booster dose in the past, respectively (i.e., relative VE). However, because the bivalent mRNA vaccines have been evaluated during different time periods than the monovalent ancestral-strain mRNA vaccines, direct comparison in observational VE studies reporting absolute or relative VE has proved challenging due to potential time-related confounding (e.g., time since last vaccine dose, subvariant circulation, incidence rates). Three studies (including a randomized controlled trial conducting an exploratory analysis) evaluating protection of bivalent and monovalent boosters among persons receiving an equal number of previous COVID-19 vaccines during the same time period showed marginal (approximately 10%) higher VE for bivalent vaccines against Omicron *symptomatic disease* or *infection*. However, no studies have evaluated VE against *severe disease* for monovalent and bivalent vaccines during the same time period.

A [recent report](#) suggests that VE against Omicron subvariant BA.4/BA.5 is likely lower than against BA.1, although this may be both due to a poorer vaccine performance against BA.4/BA.5 as well as methodological factors in how the VE studies were done. Evidence of VE against XBB/XBB.1.5 is still limited. [One study](#) from Singapore found that, among previously infected 12-17-year-olds, *absolute* VE of a first mRNA booster dose against *reinfection* due to XBB was 47.9% (95% confidence interval: 20.2% - 66.1%) and 85.7% (95% confidence interval: 80.2% - 89.6%) against BA.4/BA.5. However, it is important to note that the maximum duration of follow-up post final dose was longer during the XBB period (approximately 50 weeks) than the BA.4/BA.5 period (approximately 37 weeks); more time for waning against XBB than BA.4/BA.5 may partially explain the lower VE against XBB. [Another study](#), from the United States, evaluated the *relative* VE of a bivalent mRNA vaccine (ancestral/Omicron BA.4/BA.5) given as a first, second, or third booster compared to individuals receiving two to four doses of monovalent mRNA vaccine; *relative* VE of a bivalent mRNA vaccine against *symptomatic disease* due to XBB.1.5 was similar to that of BA.5. Similarly, [a study](#) from the United Kingdom assessing VE against hospitalization due to XBB.1.5 reported that *relative* VE of a bivalent mRNA vaccine (ancestral/Omicron BA.1) given as any booster dose compared to individuals who had not yet received a bivalent vaccine (i.e. had received fewer doses of monovalent mRNA vaccines) was similar to that of BQ.1, and somewhat higher than that of CH.1.1 (though confidence intervals overlapped), two high-prevalence variants in the United Kingdom at the time. Three additional studies from [Qatar](#), [Italy](#), and [Singapore](#) conducted during a period of XBB dominance found that persons receiving a bivalent mRNA vaccine (ancestral/Omicron BA.1 or ancestral/Omicron BA.4/BA.5) as a first, second, or third booster dose had additional protection against various XBB-related outcomes *relative* to persons who had not yet received a bivalent booster vaccine but had previously received two to four doses of a monovalent mRNA vaccine; no comparison to other subvariants was conducted.

Neutralization

Neutralizing antibody studies can provide early insights into vaccine performance against new and emerging VOCs and their subvariants. For more information about the capacity of COVID-19 vaccines to neutralize various Omicron sub-variants, please see a [systematic review](#) of post-monovalent vaccination neutralization responses to Omicron BA.1, BA.2, BA.3, and BA.4/BA.5. In addition, [neutralization plots](#) displaying the results of a living systematic review of neutralization studies are updated regularly on VIEW-hub.org (last updated on 29 August 2023) and contain information on more recent subvariants, such as XBB.

The totality of the evidence to date suggests that neutralizing antibody response of first booster vaccination against Omicron BA.1 is approximately six-fold lower (suggesting poorer vaccine performance) compared to the ancestral strain, which is a greater reduction than observed with previous VOCs. In addition, the median fold-reduction in geometric mean titers was two times lower for BA.4/BA.5 relative to BA.1. Evidence suggests even further reductions in neutralization capacity against the newer subvariants BQ.1/BQ.1.1 and especially XBB/XBB.1/XBB.1.5. Primary series neutralization against Omicron (without a booster) was too poor to enable accurate comparisons of fold reductions for subvariants.

Finally, a [summary](#) of neutralization responses comparing monovalent to bivalent mRNA vaccines is also available on [VIEW-hub.org](#), providing preliminary evidence of improved performance of bivalent vaccines against more recent Omicron subvariants.

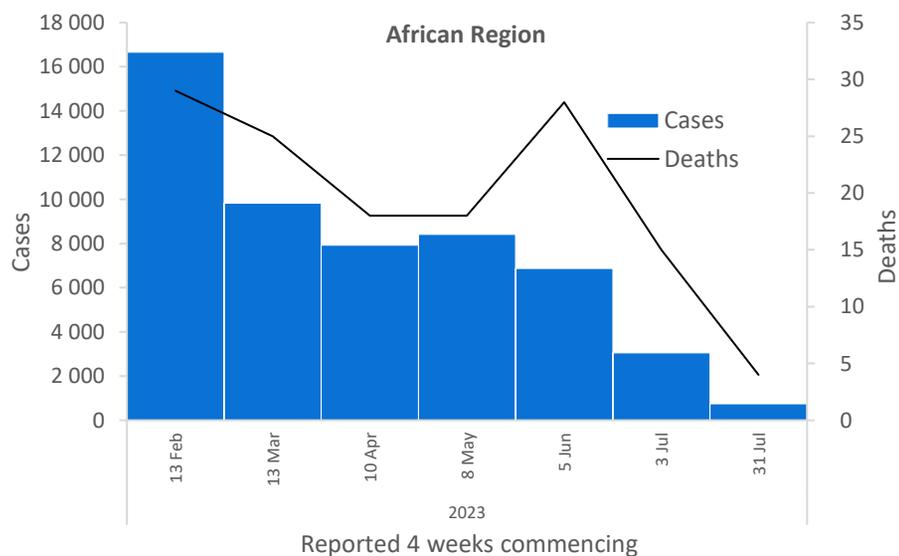
WHO regional overviews

Data for 31 July to 27 August 2023

African Region

The African Region reported over 740 new cases, a 76% decrease as compared to the previous 28-day period. One (2%) of the 50 countries for which data are available reported increases in new cases of 20% or greater: Ethiopia (45 vs 26 new cases; +73%). The highest numbers of new cases were reported from Mauritius (365 new cases; 28.7 new cases per 100 000; -31%), Uganda (100 new cases; <1 new case per 100 000; no cases reported the previous 28-day period), and Malawi (68 new cases; <1 new case per 100 000; -21%).

The number of new 28-day deaths in the Region decreased by 73% as compared to the previous 28-day period, with four new deaths reported. The new deaths were reported from Zimbabwe (three new deaths; <1 new death per 100 000; -40%), and Cabo Verde (one new death; <1 new death per 100 000; no deaths reported the previous 28-day period).

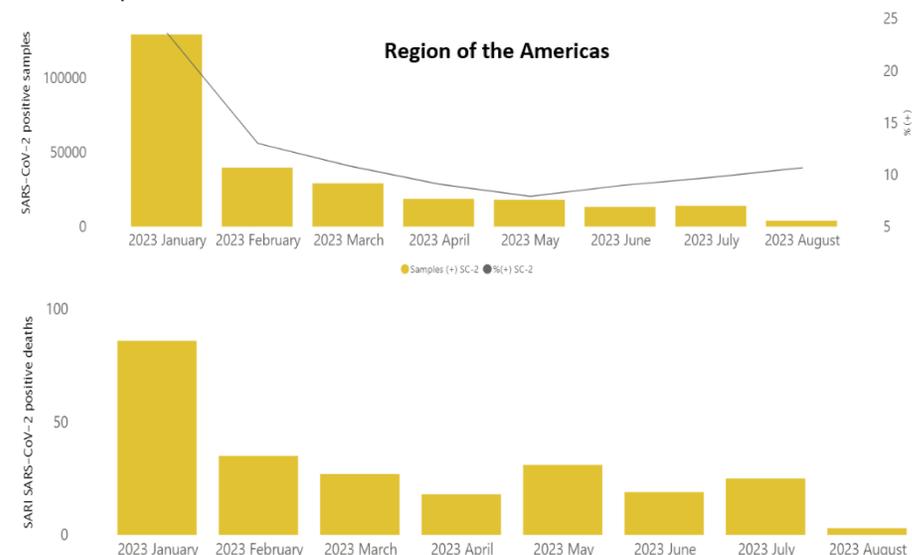


Updates from the [African Region](#)

Region of the Americas

In this WEU edition, we have included all available data from the Region of the Americas since the start of the pandemic up to 6 August 2023, reported through COVID-19 specific channels in the global figures. However, 28-day comparisons for this Region and its Member States are presented using the integrated respiratory viruses surveillance data reported through FluNet and FluID platforms. We are transitioning to extract COVID-19-specific data from integrated respiratory disease surveillance systems for this Region. Additional updates from this Region can be found in the [Influenza and Other Respiratory Virus weekly report](#).

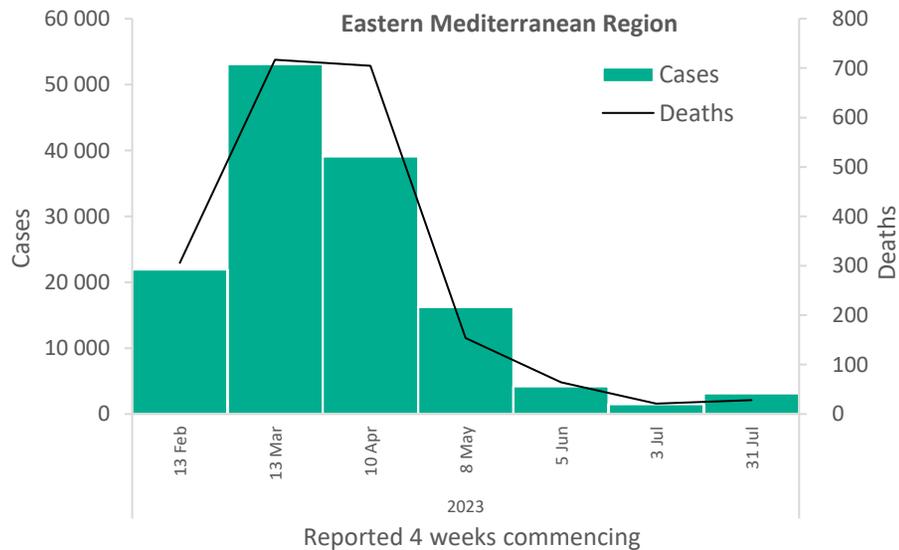
The Americas Region recorded a SARS-CoV-2 positivity rate of 10.75% among all samples tested and reported to FluNet, indicating a 10.5% increase compared to the preceding 28-day period. The number of new 28-day deaths among Severe Acute Respiratory Infections (SARI cases) in the Region decreased by 80% as compared to the previous 28-day period, with three new deaths reported. Note that these are data from sentinel sites and so will under-represent the true toll.



Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 3100 new cases, a 113% increase as compared to the previous 28-day period. Three (14%) of the 22 countries for which data are available reported increases in new cases of 20% or greater: Kuwait (112 vs 29 new cases; +286%), Morocco (282 vs 105 new cases; +169%), and the Islamic Republic of Iran (533 vs 398 new cases; +34%). The highest numbers of new cases were reported from Lebanon (1352 new cases; 19.8 new cases per 100 000; no cases reported the previous 28-day period), Afghanistan (858 new cases; 2.2 new cases per 100 000; -9%), and the Islamic Republic of Iran (533 new cases; <1 new case per 100 000; +34%).

The number of new 28-day deaths in the Region increased by 33% as compared to the previous 28-day period, with 28 new deaths reported. The highest numbers of new deaths were reported from Lebanon (11 new deaths; <1 new death per 100 000; no deaths reported the previous 28-day period), the Islamic Republic of Iran (10 new deaths; <1 new death per 100 000; -29%), and Afghanistan (seven new deaths; <1 new death per 100 000; similar to the previous 28-day period).

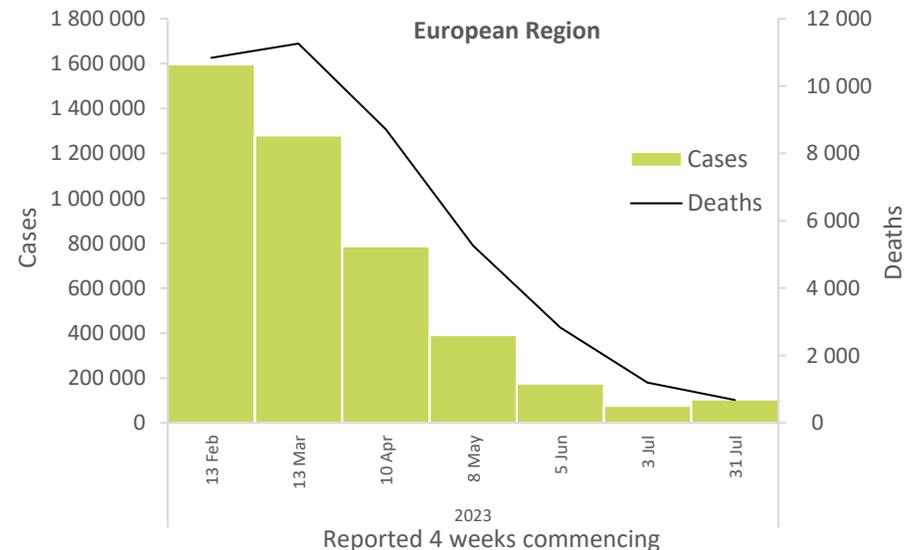


Updates from the [Eastern Mediterranean Region](#)

European Region

The European Region reported over 104 000 new cases, a 39% increase as compared to the previous 28-day period. Twenty-four (39%) of the 61 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Kosovo^[1] (51 vs nine new cases; +467%), Czechia (978 vs 271 new cases; +261%), and Romania (7180 vs 2002 new cases; +259%). The highest numbers of new cases were reported from Italy (26 998 new cases; 45.3 new cases per 100 000; +81%), the United Kingdom (26 264 new cases; 38.7 new cases per 100 000; +89%), and the Russian Federation (12 239 new cases; 8.4 new cases per 100 000; -19%).

The number of new 28-day deaths in the Region decreased by 43% as compared to the previous 28-day period, with 682 new deaths reported. The highest numbers of new deaths were reported from Italy (192 new deaths; <1 new death per 100 000; +45%), the Russian Federation (158 new deaths; <1 new death per 100 000; -37%), and Ireland (62 new deaths; 1.2 new deaths per 100 000; +148%).

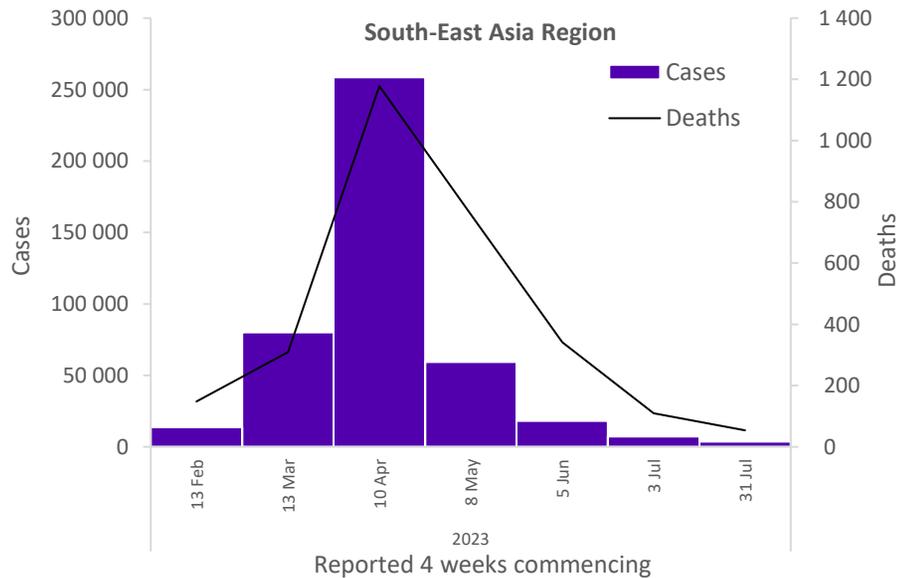


Updates from the [European Region](#)

South-East Asia Region

The South-East Asia Region reported over 3700 new cases, a 48% decrease as compared to the previous 28-day period. One (10%) of the 10 countries for which data are available reported increases in new cases of 20% or greater: Nepal (36 vs 22 new cases; +64%). The highest numbers of new cases were reported from India (1375 new cases; <1 new case per 100 000; +5%), Thailand (1231 new cases; 1.8 new cases per 100 000; -55%), and Bangladesh (876 new cases; <1 new case per 100 000; -49%).

The number of new 28-day deaths in the Region decreased by 51% as compared to the previous 28-day period, with 54 new deaths reported. The highest numbers of new deaths were reported from Thailand (34 new deaths; <1 new death per 100 000; -37%), India (12 new deaths; <1 new death per 100 000; +33%), and Bangladesh (four new deaths; <1 new death per 100 000; -60%).



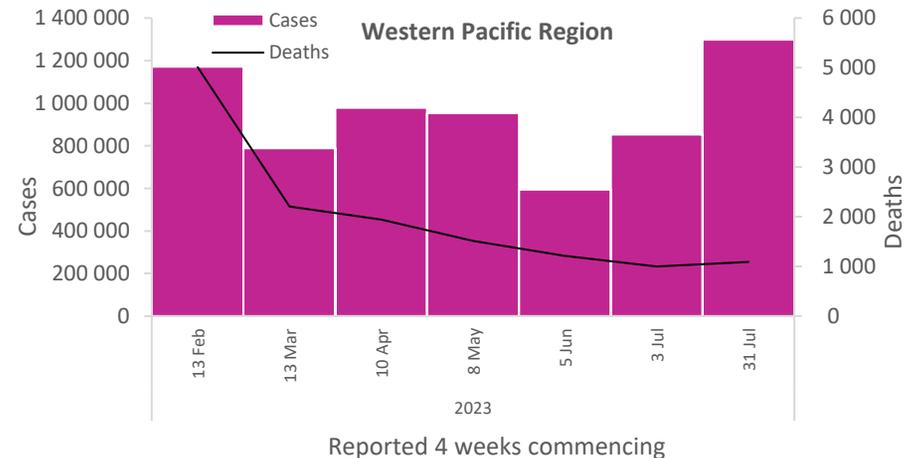
Updates from the [South-East Asia Region](#)

ⁱⁱ Note: There was a retrospective reconciliation of data that resulted in a deduction of over 65 000 cases of the Western Pacific Region over the period 31 July - 27 August 2023. This explains why the regional total is lower than the sum of the country data reflected here.

Western Pacific Region

The Western Pacific Region reported nearly 1.3 million new cases,ⁱⁱ a 52% increase as compared to the previous 28-day period. Four (11%) 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 the Federated States of Micronesia (58 vs 12 new cases; +383%), Niue (nine vs two new cases; +350%), and Kiribati (three vs one new cases; +200%). The highest numbers of new cases were reported from the Republic of Korea (1 296 710 new cases; 2529.2 new cases per 100 000; +73%), Australia (20 628 new cases; 80.9 new cases per 100 000; -33%), and Singapore (20 432 new cases; 349.2 new cases per 100 000; -12%).

The number of new 28-day deaths in the Region increased by 9% as compared to the previous 28-day period, with 1092 new deaths reported. The highest numbers of new deaths were reported from the Republic of Korea (596 new deaths; 1.2 new deaths per 100 000; +199%), Australia (145 new deaths; <1 new death per 100 000; -62%), and China (135 new deaths; <1 new death per 100 000; +193%).



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. Case detection, inclusion criteria, testing strategies, reporting practices, and data cut-off and lag times differ between countries/territories/areas. A small number of countries/ territories/areas report combined probable and laboratory-confirmed cases. Differences are to be expected between information products published by WHO, national public health authorities, and other sources.

A record of historic data adjustment made 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. COVID-19 confirmed cases and deaths reported in the last seven days by countries, territories, and areas, and WHO Region (reported in previous issues) are now available at: <https://covid19.who.int/table>.

‘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.

Updates on the COVID-19 outbreak in the Democratic People’s Republic of Korea are not included in this report as the number of laboratory-confirmed COVID-19 cases is not reported.

^[1] All references to Kosovo should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). In the map, the number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes.

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 webpage](#). 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 all SARS-CoV-2 variants and to track changes in prevalence and viral characteristics. The current trends describing the circulation of variants should be interpreted with due consideration of the limitations of the COVID-19 surveillance systems. 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.¹

References

1. Chen Z, Azman AS, Chen X, et al. Global landscape of SARS-CoV-2 genomic surveillance and data sharing. *Nature genetics*. 2022;54(4). doi:10.1038/s41588-022-01033-y

COVID-19 Epidemiological Update

Edition 159 published 29 September 2023

In this edition:

- [Key highlights](#)
- [Global overview](#)
- [Hospitalizations and ICU admissions](#)
- [SARS-CoV-2 variants of interest and variants under monitoring](#)
- [WHO regional overviews](#)

Please note that from this edition, the COVID-19 Epidemiological Update will be provided every four weeks. Disaggregated data will still be accessible on the [WHO COVID-19 dashboard](#), where the full dataset is available for download. The previous 158 editions of Weekly COVID-19 Epidemiological Update are accessible at the following link: <https://www.who.int/emergencies/situation-reports>

Key highlights

- Globally, 96 countries are reporting COVID-19 cases and 37 are reporting COVID-19 deaths. Note that this statistic does not reflect the actual number of countries where cases or deaths are occurring.
- Among countries reporting, the number of reported cases and deaths have declined, with over 685 000 new cases and over 1900 new deaths reported during the 28-day period of 28 August to 24 September 2023, a decrease of 55% and 34%, respectively, compared to the previous 28 days (31 July to 27 August 2023).
- The recent declining trend in the number of new cases reported globally should be interpreted with caution due to decreased testing, sequencing and reporting, alongside reporting delays in many countries.
- The increase of new cases reported during the 28-day period of 31 July to 27 August 2023 by the African Region is due to backlog reports for some countries, resulting in an artificial increase of cases. These data should be interpreted considering this limitation.
- During the past 28 days, 50 and 39 countries make available data on hospitalizations and admissions to an intensive care unit (ICU) at least once, respectively. At the global level, during the past 28 days (21 August to 17 September 2023), a total of 95 999 new hospitalizations and 985 new ICU admissions were reported, an increase of 42% and 12% respectively, compared to the previous 28 days (24 July to 20 August 2023).
- WHO is currently tracking several SARS-CoV-2 variants, including three variants of interest (VOIs) – XBB.1.5, XBB.1.16 and EG.5 – and seven variants under monitoring (VUMs). Globally, EG.5 represents 33.6% of sequences shared with GISAID and is presently the most prevalent VOI and has been reported by 73 countries.

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

- [WHO Monthly Operational Update and past editions of the Weekly Epidemiological Update on COVID-19](#)
- [WHO COVID-19 detailed surveillance data dashboard](#)
- [WHO COVID-19 policy briefs](#)
- [Vaccine effectiveness of primary series and booster vaccination against the Omicron and its descendant lineages](#)
- [COVID-19 surveillance reporting requirements for Member States](#)

Global overview

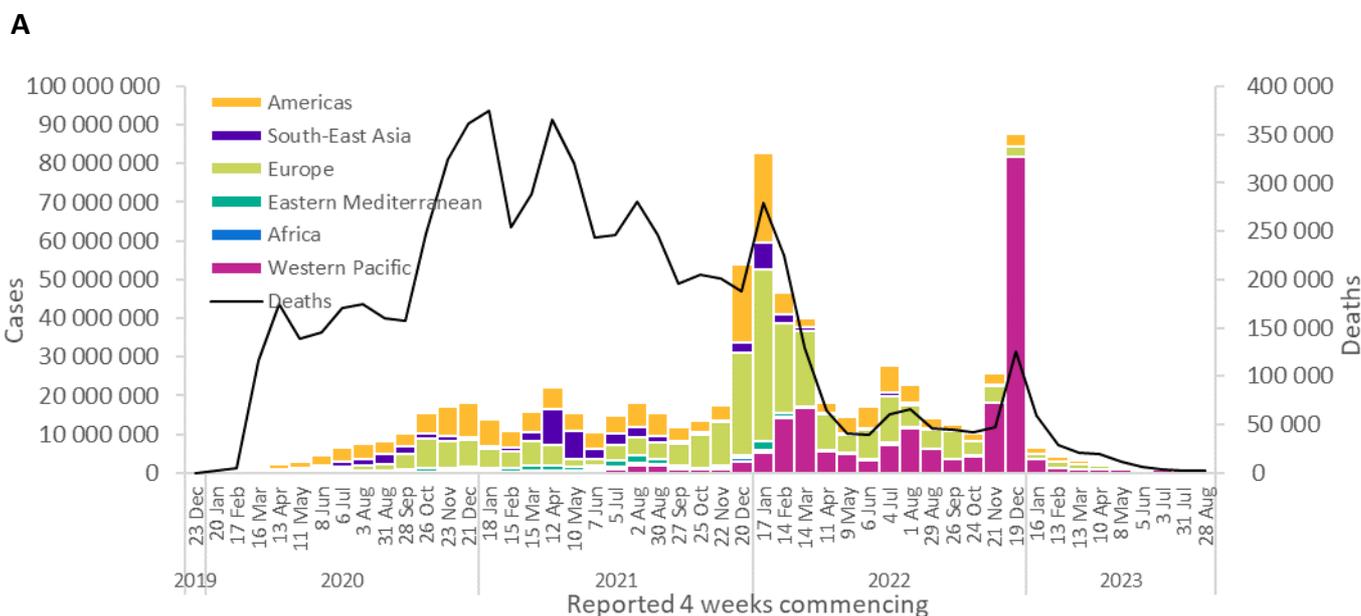
Data as of 24 September 2023

Globally, the number of new cases decreased by 55% during the 28-day period of 28 August to 24 September 2023 as compared to the previous 28-day period, with over 685 000 new cases reported (Figure 1, Table 1). The number of new deaths decreased by 34% as compared to the previous 28-day period, with over 1900 new fatalities reported. As of 24 September 2023, over 770 million confirmed cases and over six million deaths have been reported globally.

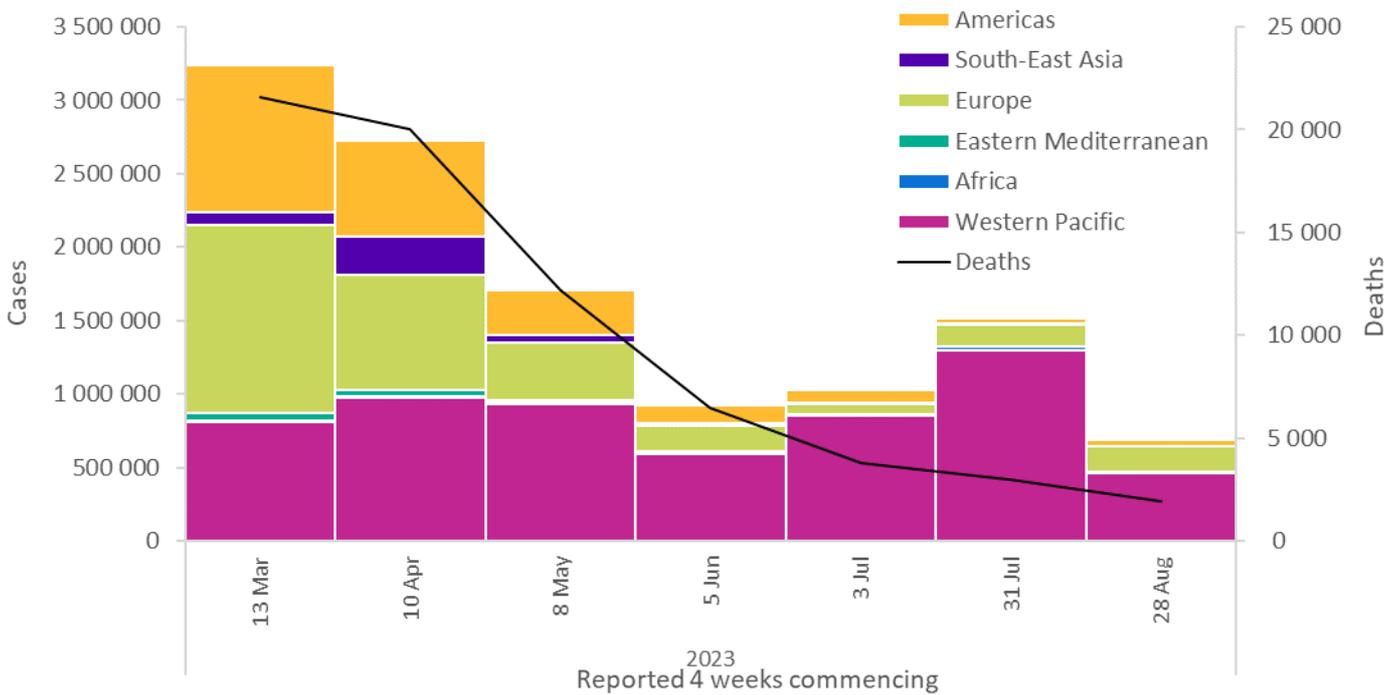
Reported cases do not accurately represent infection rates due to the reduction in testing and reporting globally. During this 28-day period, only 41% (96 of 234) of countries reported at least one case to WHO – a proportion that has been declining since mid-2022. It is important to note that this statistic does not reflect the actual number of countries where cases exist. Additionally, data from the previous 28-day period are continuously being updated to incorporate retrospective changes in reported COVID-19 cases and deaths made by countries. Data presented in this report are therefore incomplete and should be interpreted in light of 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. Global and national data on SARS-CoV-2 PCR percent positivity are available on [WHO’s integrated dashboard](#) provided by the Global Influenza Programme. Recent data (epidemiological week 38) show that the SARS-CoV-2 PCR percent positivity rate from reporting countries averages approximately 17% (Figure 2).

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 morbidity and the 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, *inter alia*, early warning, surveillance and reporting, variant tracking, early clinical care provision, administration of vaccine boosters to high-risk groups, improvements in ventilation, and regular communication.

Figure 1. COVID-19 cases reported by WHO Region, and global deaths by 28-day intervals, as of 24 September 2023 (A); 13 March to 24 September 2023 (B)**



B



**See [Annex 1: Data, table, and figure note](#)

At the regional level, the number of newly reported 28-day cases decreased or remained stable across four of the six WHO regions: the African Region (-92%), the Western Pacific Region (-65%), the South-East Asia Region (-23%), and the Region of the Americas (+3%); while case numbers increased in two WHO regions: the European Region (+19%), and the Eastern Mediterranean Region (+53%). The number of newly reported 28-day deaths increased across three regions: the African Region (+33%), the Eastern Mediterranean Region (+88%), and the South-East Asia Region (+111%); while death numbers decreased in three WHO regions: the Region of the Americas (-58%), the European Region (-54%), and the Western Pacific Region (-15%).

At the country level, the highest numbers of new 28-day cases were reported from the Republic of Korea (392 073 new cases; -70%), Italy (60 885 new cases; +84%), the United Kingdom (29 959 new cases; -5%), the Russian Federation (28 441 new cases; +132%), and Mexico (26 746 new cases; +3%). The highest numbers of new 28-day deaths were reported from Australia (734 new deaths; +263%), Italy (232 new deaths; +6%), the Republic of Korea (122 new deaths; -80%), Mexico (106 new deaths; -26%), and India (103 new deaths; +758%).

Table 1. Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 24 September 2023**

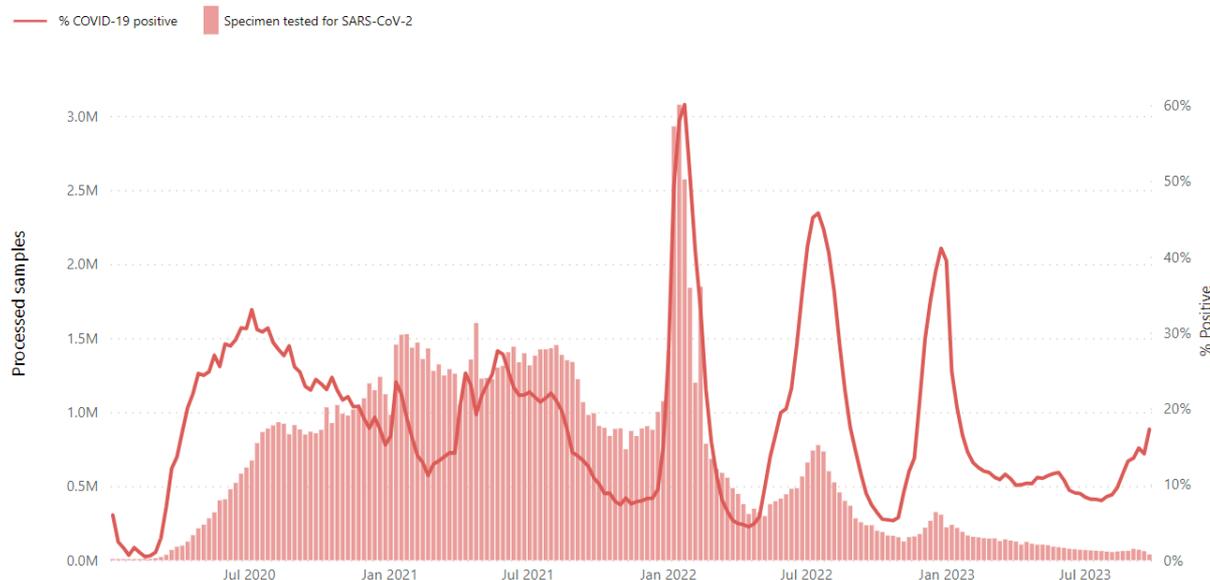
WHO Region	Countries reporting cases in the last 28 days	New cases in last 28 days (%)	Change in new cases in last 28 days *	Cumulative cases (%)	Countries reporting deaths in the last 28 days	New deaths in last 28 days (%)	Change in new deaths in last 28 days *	Cumulative deaths (%)
Western Pacific	20/35 (57%)	458 757 (67%)	-65%	207 284 734 (27%)	6/35 (17%)	977 (50%)	-15%	417 745 (6%)
Europe	27/61 (44%)	177 642 (26%)	19%	276 134 635 (36%)	17/61 (28%)	661 (34%)	-54%	2 248 608 (32%)
Americas [§]	21/56 (38%)	38 858 (6%)	3%	193 286 267 (25%)	6/56 (11%)	122 (6%)	-58%	2 959 269 (43%)
Eastern Mediterranean	5/22 (23%)	5 201 (1%)	53%	23 394 122 (3%)	2/22 (9%)	64 (3%)	88%	351 465 (5%)
South-East Asia	7/10 (70%)	3 070 (<1%)	-23%	61 205 037 (8%)	3/10 (30%)	118 (6%)	111%	806 781 (12%)
Africa	16/50 (32%)	1 634 (<1%)	-92%	9 569 874 (1%)	3/50 (6%)	8 (<1%)	33%	175 435 (3%)
Global	96/234 (41%)	685 162 (100%)	-55%	770 875 433 (100%)	37/234 (16%)	1950 (100%)	-34%	6 959 316 (100%)

*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.

[§] Starting from the week commencing on 11 September 2023, the source of the data from the Region of the Americas was switched to aggregated national surveillance, received through the COVID-19, Influenza, RSV and Other Respiratory Viruses program in the Americas. Data have been included retrospectively since 31 July 2023.

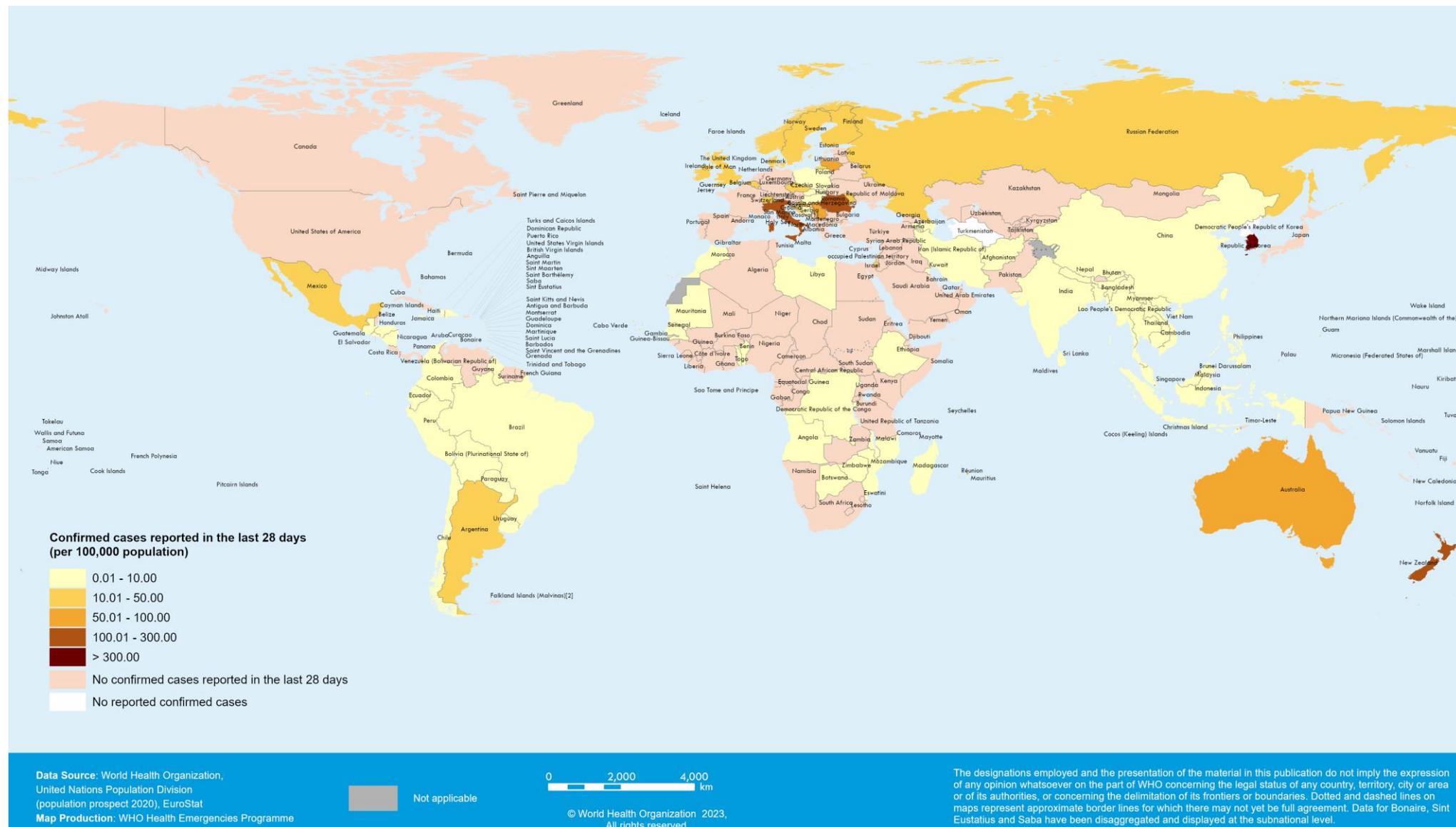
**See [Annex 1: Data, table, and figure notes](#)

Figure 2. SARS-CoV-2 test positivity rates and specimens reported to FluNet; 5 January 2020 to 24 September 2023



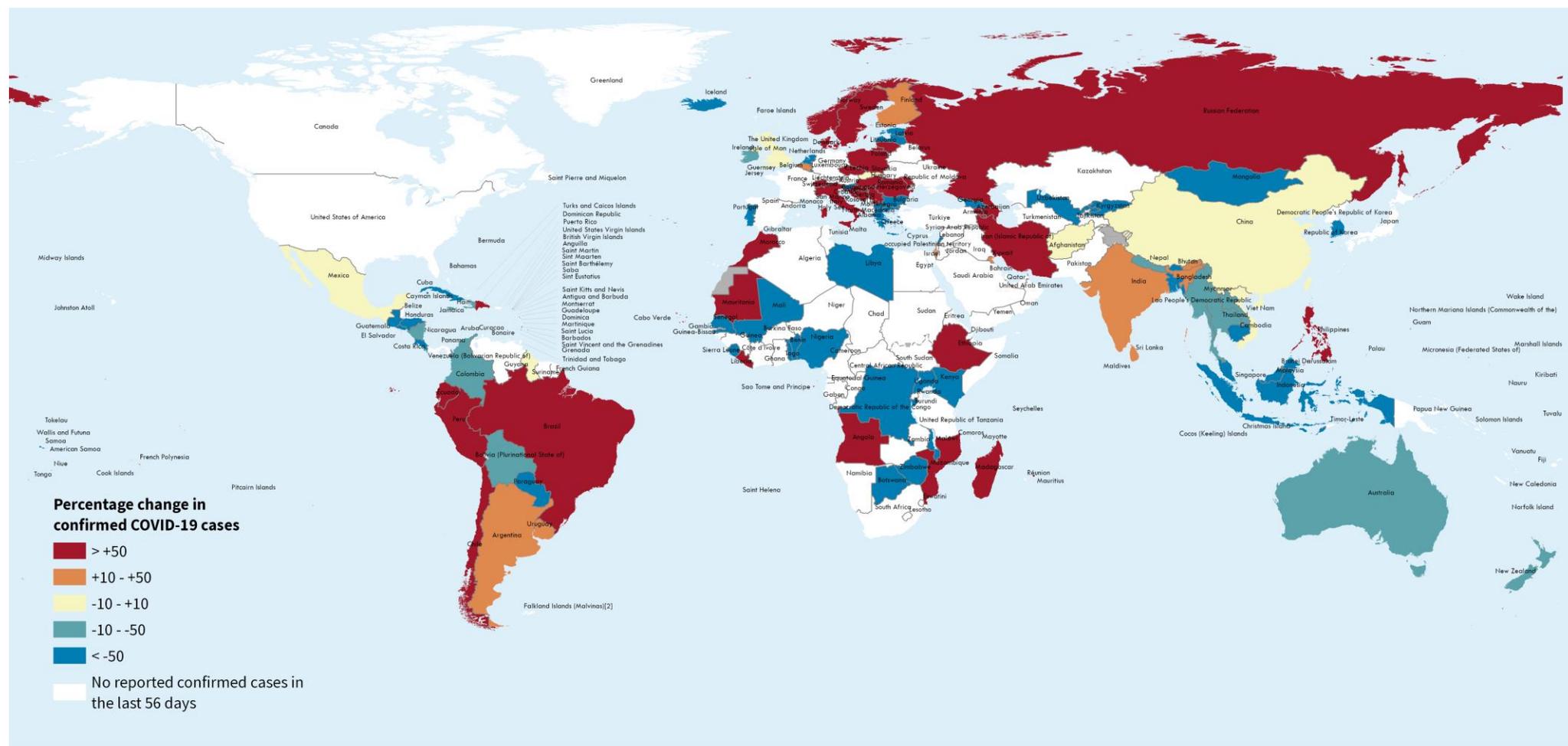
Source: *Influenza and SARS-CoV-2 surveillance data reported to FluNet; Global Influenza Surveillance and Response System*

Figure 3. Number of confirmed COVID-19 cases reported over the last 28 days per 100 000 population, as of 24 September 2023**



**See [Annex 1: Data, table, and figure notes](#)

Figure 4. Percentage change in confirmed COVID-19 cases over the last 28 days relative to the previous 28 days, as of 24 September 2023**



Data Source: World Health Organization

Map Production: WHO Health Emergencies Programme

Not applicable

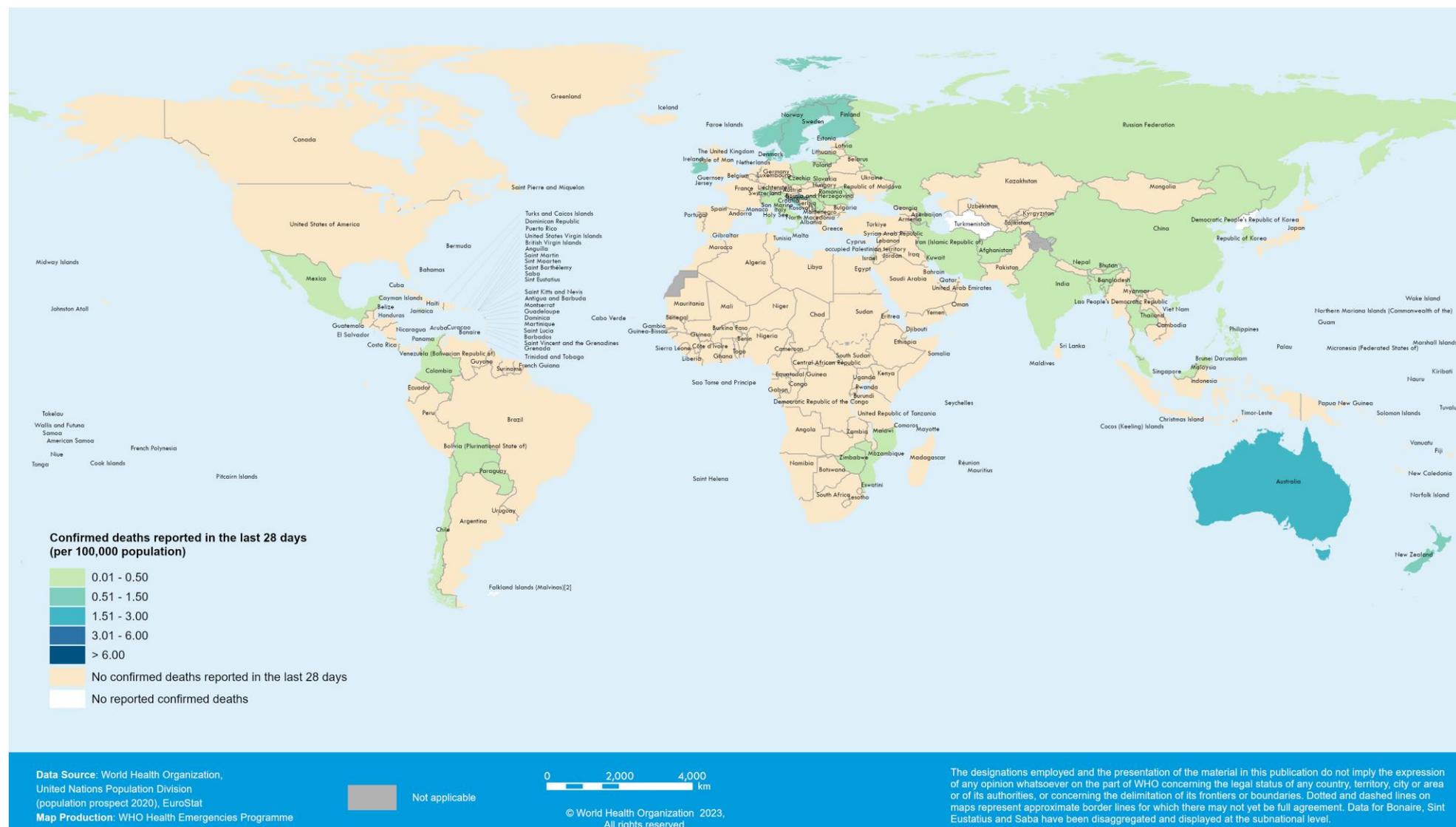
0 2,500 5,000 km

© World Health Organization 2023. All rights reserved.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. [1] All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). Number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes. [2] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas). Data for Bonaire, Sint Eustatius and Saba have been disaggregated and displayed at the subnational level.

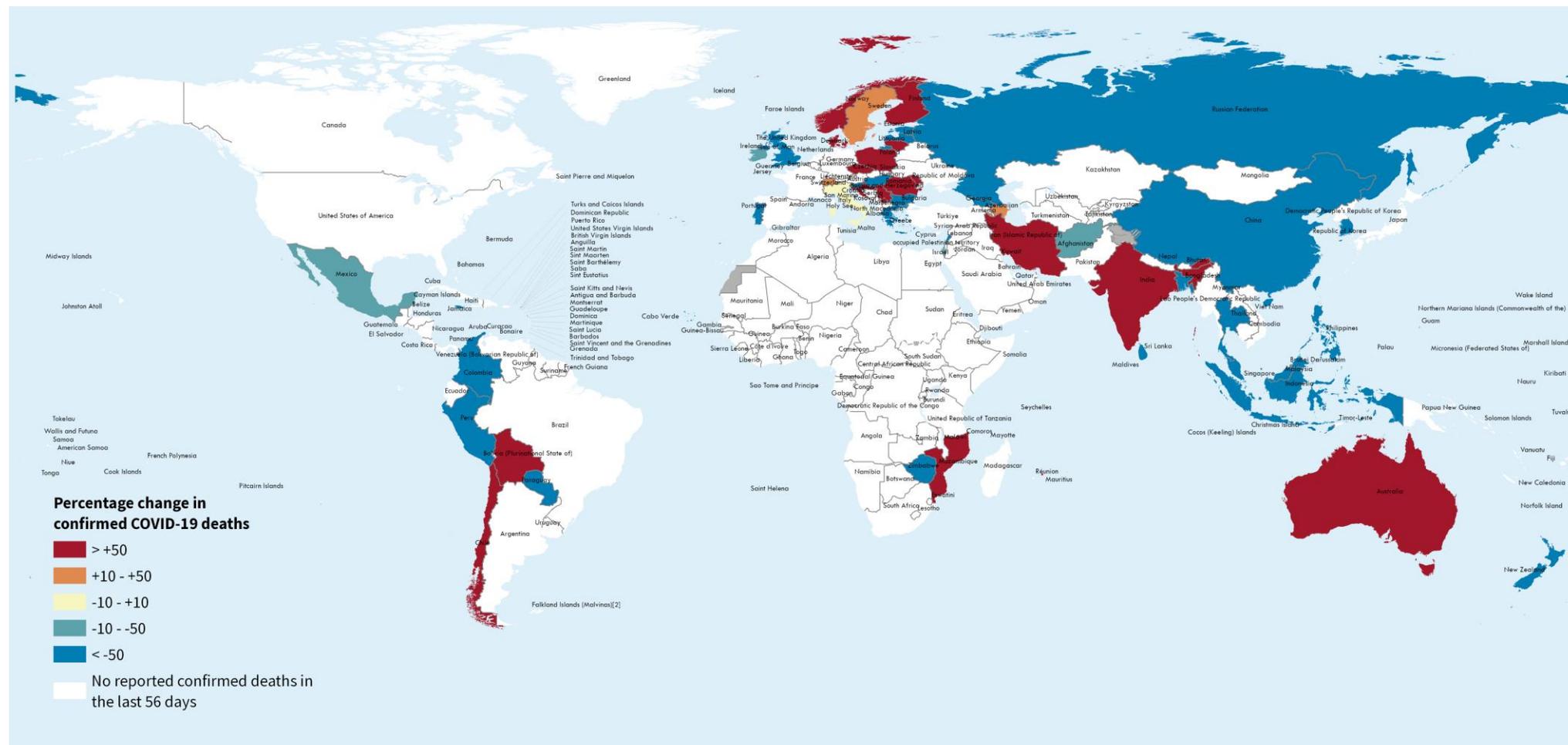
**See [Annex 1: Data, table, and figure notes](#)

Figure 5. Number of COVID-19 deaths reported over the last 28 days per 100 000 population, as of 24 September 2023 **



**See [Annex 1: Data, table, and figure notes](#)

Figure 6. Percentage change in confirmed COVID-19 deaths over the last 28 days relative to the previous 28 days, as of 24 September 2023**



Data Source: World Health Organization

Map Production: WHO Health Emergencies Programme

Not applicable



© World Health Organization 2023. All rights reserved.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. [1] All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). Number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes. [2] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas). Data for Bonaire, Sint Eustatius and Saba have been disaggregated and displayed at the subnational level.

**See [Annex 1: Data, table, and figure notes](#)

Hospitalizations and ICU admissions

At the global level, during the past 28 days (21 August to 17 September 2023), a total of 95 999 new hospitalizations and 985 new intensive care unit (ICU) admissions were reported from 50 and 39 countries, respectively (Figure 7). This represents a 42% and 12% increase, respectively, compared to the previous 28 days (24 July to 20 August 2023). 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 past 28 days, 50 (21%) countries reported data to WHO on new hospitalizations at least once (Figure 7). The African Region had the highest proportion of countries reporting data on new hospitalizations (16 countries; 32%), followed by the European Region (16 countries; 26%), the Region of the Americas (14 countries; 25%), the South-East Asia Region (two countries; 20%), and the Western Pacific Region (two countries; 6%). No country in the Eastern Mediterranean Region shared hospitalization data with WHO during the period*. The number of countries that consistently reported new hospitalizations for the period was 11% (26 countries) (Table 2).

Among the 26 countries consistently reporting new hospitalizations, 12 (46%) countries registered an increase of 20% or greater in hospitalizations during the past 28 days compared to the previous 28-day period: Czechia (163 vs 28; +482%), Slovakia (108 vs 34; +218%), Albania (68 vs 23; +196%), Latvia (151 vs 64; +136%), Lithuania (126 vs 60; +110%), Netherlands (422 vs 205; +106%), Chile (48 vs 24; +100%), Honduras (64 vs 36; +78%), the United States of America (74 593 vs 47 041; 59%), Singapore (511 vs 376; +36%), Greece (2672 vs 1994; +34%), and Guatemala (26 vs 21; +24%). The highest numbers of hospitalizations were reported from the United States of America (74 593 vs 47 041; +59%), Mexico (6302 vs 6130; +3%), and Italy (3976 vs 3576; +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 2. Number of new hospitalization admissions reported by WHO regions, 21 August to 17 September 2023 compared 24 July to 20 August 2023

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	16/50 (32%)	4	1/50 (2%)	0 ⁺	N/A
Americas	14/56 (25%)	84 138	10/56 (18%)	84 024	+52%
Eastern Mediterranean	0/22 (<1%)	N/A***	0/22 (<1%)	N/A	N/A
Europe	16/61 (26%)	9524	13/61 (21%)	9 213	+16%
South-East Asia	2/10 (20%)	63	1/10 (10%)	23	-98%
Western Pacific	2/35 (6%)	2 270	1/35 (3%)	511	+35%
Global	50/234 (21%)	95 999	26/234 (11%)	93 771	+45%

*Percent change is calculated for countries reporting consistently both in the past 28 days and the previous 28 days (comparison period). To be able to compare two periods, only the countries reported consistently in both the last and previous 28 days periods are included in the table.

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

*** N/A represents not available.

*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.

Table 3. Countries that consistently reported new hospitalizations by WHO regions, 21 August to 17 September 2023

Region	Country	New hospitalizations in last 28 days	Change from previous 28-day period
Africa	Angola	0	-
Americas	Haiti	0	-
Americas	Suriname	0	-
Americas	Chile	48	100%
Americas	Honduras	64	78%
Americas	United States of America	74 593	59%
Americas	Brazil	1 678	15%
Americas	Mexico	6 302	3%
Americas	Bolivia	10	-23%
Americas	Colombia	321	-36%
Americas	Guatemala	26	24%
Europe	North Macedonia	6	-
Europe	Czechia	163	482%
Europe	Slovakia	108	218%
Europe	Albania	68	196%
Europe	Latvia	151	136%
Europe	Lithuania	126	110%
Europe	Netherlands	422	106%
Europe	Greece	2 672	34%
Europe	Italy	3 976	11%
Europe	Ireland	1 355	-9%
Europe	Kyrgyzstan	11	-31%
Europe	Malta	117	-38%
Europe	Portugal	38	-86%
South-East Asia	Bangladesh	23	-98%
Western Pacific	Singapore	511	36%

New ICU admissions

Across the six WHO regions, in the past 28 days, a total of 39 (17%) countries reported data to WHO on new ICU admissions at least once (Figure 8). The European Region had the highest proportion of countries reporting data on new ICU admissions (14 countries; 23%), followed by the African Region (11 countries; 22%), the Region of the Americas (11 countries; 20%), the South-East Asia Region (one country; 10%), and the Western Pacific Region (two countries; 6%). No country in the Eastern Mediterranean Region reported ICU data during the period. The proportion of countries that consistently reported new ICU admissions for the period was 8% (19 countries).

Among the 19 countries consistently reporting new ICU admissions, five (26%) countries showed an increase of 20% or greater in new ICU admissions during the past 28 days compared to the previous 28-day period: the Netherlands (31 vs 13; +138%), Chile (12 vs seven; +71%), Guatemala (five vs three; +67%), Latvia (six vs four; +50%), and Greece

(48 vs 34; +41%). The highest numbers of new ICU admissions were reported from Brazil (550 vs 474; +16%), Italy (117 vs 107; +9%), and Australia (78 vs 76; +3%).

Table 4. Number of new ICU admissions reported by WHO regions, 21 August to 17 September 2023 compared to 24 July to 20 August 2023

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	11/50 (22%)	0 ⁺	1/50 (2%)	0	N/A
Americas	11/56 (20%)	605	7/56 (13%)	588	+17%
Eastern Mediterranean	0/22 (<1%)	N/A***	0/22 (<1%)	N/A	N/A
Europe	14/61 (23%)	277	9/61 (15%)	256	+27%
South-East Asia	1/10 (10%)	3	0/10 (<1%)	N/A	N/A
Western Pacific	2/35 (6%)	100	2/35 (6%)	87	<1%
Global	39/235 (17%)	985	19/235 (8%)	931	+18%

*Percent change is calculated for countries reported consistently both in the past 28 days and the previous 28 days (comparison period). To be able to compare two periods, only the countries reported consistently in both the last and previous 28 days periods are included in the table.

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

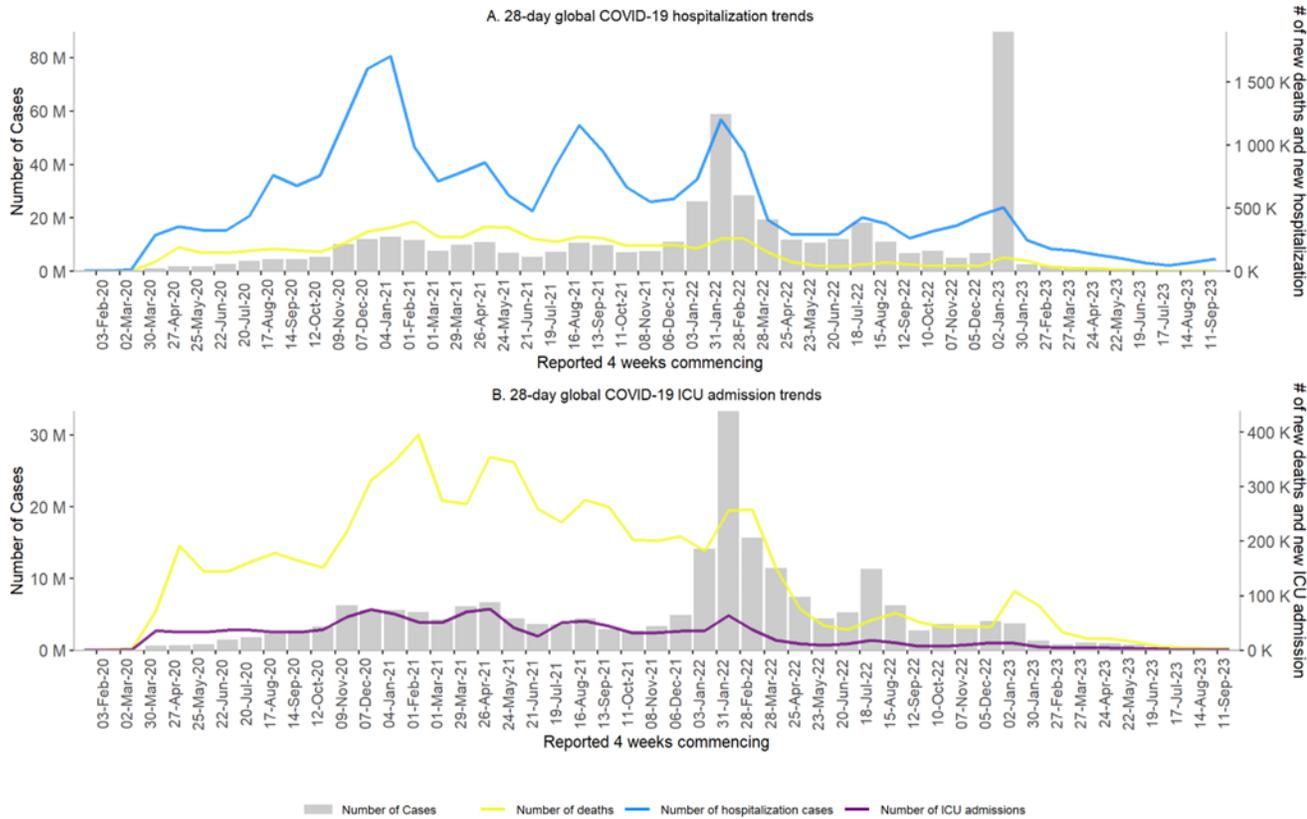
*** N/A represents not available.

⁺ 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.

Table 5. Countries that consistently reported new ICU admissions by WHO regions, 21 August to 17 September 2023

Region	Country	New ICU admissions in last 28 days	Change from previous 28-day period
Africa	Angola	0	-
Americas	Brazil	550	16%
Americas	Mexico	19	-14%
Americas	Chile	12	71%
Americas	Honduras	4	-
Americas	Bolivia	1	-
Americas	Suriname	0	-
Americas	Guatemala	5	67%
Europe	Italy	117	9%
Europe	Greece	48	41%
Europe	Netherlands	31	138%
Europe	Ireland	21	<1%
Europe	Sweden	18	-22%
Europe	Lithuania	12	-
Europe	Latvia	6	50%
Europe	Slovakia	2	-
Europe	North Macedonia	1	-
Western Pacific	Australia	78	3%
Western Pacific	Singapore	9	-18%

Figure 7. 28-day global COVID-19 new hospitalizations and ICU admissions, as of 17 September 2023



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

Severity indicators

The ICU-to-hospitalization ratio and death-to-hospitalization ratio have been key severity indicators for COVID-19 throughout the pandemic. The ICU-to-hospitalization ratio is used to assess the proportion of patients requiring ICU admission in relation to the total number of hospitalizations. The death-to-hospitalization ratio is used to assess the proportion of deaths in relation to the hospitalized patients.

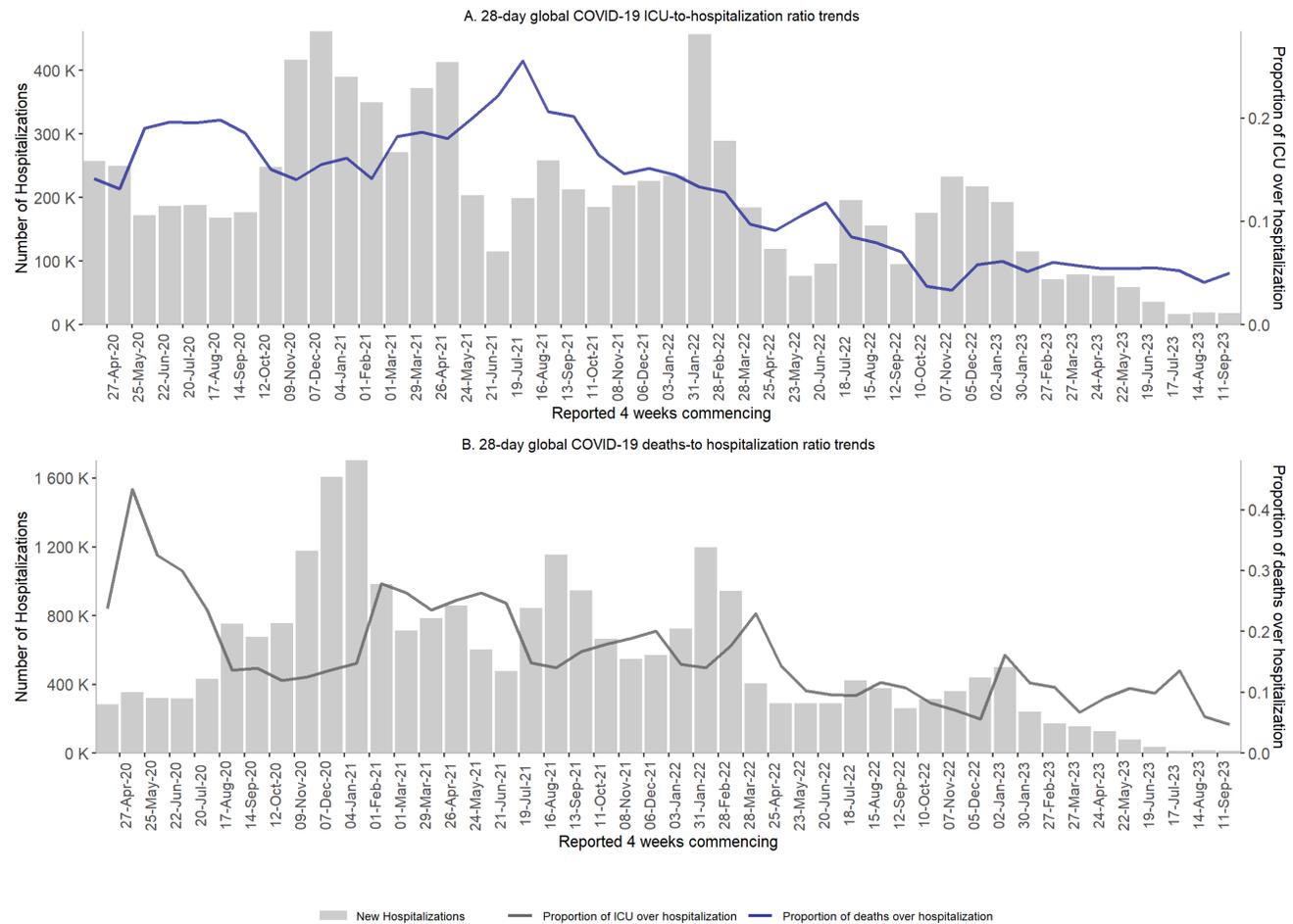
These indicators are subject to the same limitations mentioned above and their calculations are limited to the countries reporting all relevant data elements (hospitalizations; and ICU admissions or deaths, respectively) in a given week or month. It should be noted that there may be differences in reporting 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, the ICU-to-hospitalization ratio has been decreasing since the peak in July 2021 when the ratio was 0.25, dropping below 0.15 since the beginning of 2022, and around 0.05 since the start of 2023. This suggests that a decreasing proportion of new hospitalizations require intensive care.

Similarly, the death-to-hospitalization ratio has been showing a general decline since July 2021. Since January 2023, it has remained under 0.15 with monthly variation between 0.06 to 0.14. This is an encouraging trend indicating a lower mortality risk among hospitalized individuals.

Note that the causes for these decreases cannot be directly interpreted from these data, but likely include a combination of increases in infection-derived or vaccine-derived immunity, improvements early diagnosis and in clinical care, reduced strain on health systems, the distribution of cases across different countries, and other factors. It should be noted that it is not possible to infer a decreased intrinsic virulence amongst newer SARS-CoV-2 variants from these data, but rather improvement in management of COVID-19 cases over time has improved outcomes of patients.

Figure 8. COVID-19 ICU-to-hospitalization ratio and death-to-hospitalization ratio, as of 17 September 2023



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

Source: [WHO Detailed Surveillance Dashboard](#)

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

Geographic spread and prevalence

Globally, from 28 August to 24 September 2023 (28 days), 21 773 SARS-CoV-2 sequences were shared through GISAID.

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

- Three variants of interest (VOIs): XBB.1.5, XBB.1.16 and EG.5.
- Seven variants under monitoring (VUMs): BA.2.75, BA.2.86, CH.1.1, XBB, XBB.1.9.1, XBB.1.9.2 and XBB.2.3.

Globally, EG.5 is presently the most prevalent VOI and has been reported by 73 countries. EG.5 continues to rise in prevalence, accounting for 33.6% of sequences submitted to GISAID in week 36 (4 to 10 September 2023) in comparison to 25.9% in week 32 (7 to 13 August 2023) (Figure 9, Table 6). An [updated risk evaluation for EG.5](#) was published on 21 September 2023, with an overall evaluation of low additional public health risk at the global level based on available evidence. This aligns with the risk associated with the other currently circulating VOIs.

XBB.1.5 and XBB.1.16 have been decreasing in prevalence globally. XBB.1.5 accounted for 8.6% of sequences in week 36, a decrease from 12% in week 32. Similarly, XBB.1.6 accounted for 23.5% of sequences in week 32 and 18.9% in week 36 (Figure 7, Table 6).

Table 6 shows the number of countries reporting VOIs and VUMs, and their prevalence from week 32 to week 36 in 2023. Among the VUMs, XBB.1.9.2 has shown an increasing trend during the reporting period, whereas the other VUMs with sufficient number of sequences to make an assessment have shown decreasing or stable trends. For BA.2.86, while sequences have been reported from 21 countries across five WHO regions, the numbers remain too low to ascertain trends. The VOIs 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.

At the regional level, sufficient sequencing data to calculate variant prevalence during week 32 to 36 were available from three WHO regions: the Region of the Americas, the Western Pacific Region, and the European Region. Among the VOIs, EG.5 was the most prevalent variant in all three regions, and XBB.1.5 and XBB.1.6 showed decreasing or stable trends (Table 7). Amongst the VUMs, all three regions observed stable trends for BA.2.75 and XBB.2.3, a decreasing trend for CH.1.1, and an increasing trend in XBB.1.9.2 (Table 7).

With the declining trends of testing and sequencing globally, it is harder to estimate the severity impact of SARS-CoV-2 variants with mutations that potentially confer higher transmissibility. There are currently no reported laboratory or epidemiological reports indicating any association between VOIs/VUMs and increased disease severity. 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 32 to week 36 of 2023

Lineage	Countries [§]	Sequences [§]	2023-32	2023-33	2023-34	2023-35	2023-36
VOIs							
XBB.1.5*	125	287 491	12.0	10.7	9.7	9.8	8.6
XBB.1.16*	120	69 600	23.5	22.4	21.3	21.3	18.9
EG.5*	73	31 905	25.9	28.1	30.2	30.5	33.6
VUMs							
BA.2.75*	128	128 180	1.7	1.6	1.7	2.0	2.7
BA.2.86 [†]	21	198					
CH.1.1*	99	41 367	0.1	0.1	0.1	0.0	0.0
XBB*	136	76 999	6.2	5.9	5.2	4.7	4.1
XBB.1.9.1*	114	65 528	10.3	9.8	9.5	9.9	8.7
XBB.1.9.2*	92	34 137	6.3	7.6	8.4	8.7	11.2
XBB.2.3*	89	19 158	7.7	7.1	7.1	7.4	6.9
Unassigned	92	149 746	1.3	1.5	1.6	0.8	0.1
Other [†]	211	6 778 535	4.6	4.7	4.7	4.4	4.7

[§] Number of countries and sequences are since the emergence of the variants.

* Includes descendant lineages, except those individually specified elsewhere in the table. For example, XBB* does not include XBB.1.5, XBB.1.16, EG.5, XBB.1.9.1, XBB.1.9.2, and XBB.2.3.

[†] "Other" represents other circulating lineages excluding the VOI, VUMs, BA.1*, BA.2*, BA.3*, BA.4*, BA.5*. Due to delays in or retrospective assignment of variants, caution should be taken when interpreting the prevalence of the "Other" category.

[‡] Prevalence for BA.2.86 cannot be calculated due to the very small number of sequences; this is also represented by the shaded cells in the table. The number of sequences and countries were derived from GISAID as of 8:00 AM CEST on 25 September 2023.

Table 7. Weekly prevalence of SARS-CoV-2 VOIs and VUMs by WHO regions, week 32 to week 36 of 2023

Lineage (week 32 to week 36)	AMRO	AFRO [¥]	EMRO [¥]	EURO	SEARO [¥]	WPRO
VOIs						
XBB.1.5*	↓			↔		↔
XBB.1.16*	↔			↓		↓
EG.5*	↑			↑		↑
VUMs						
BA.2.75*	↔			↔		↔
BA.2.86 [†]	-			-		-
CH.1.1*	↓			↓		↓
XBB*	↓			↔		↓
XBB.1.9.1*	↔			↔		↓
XBB.1.9.2*	↑			↑		↑
XBB.2.3*	↔			↔		↔

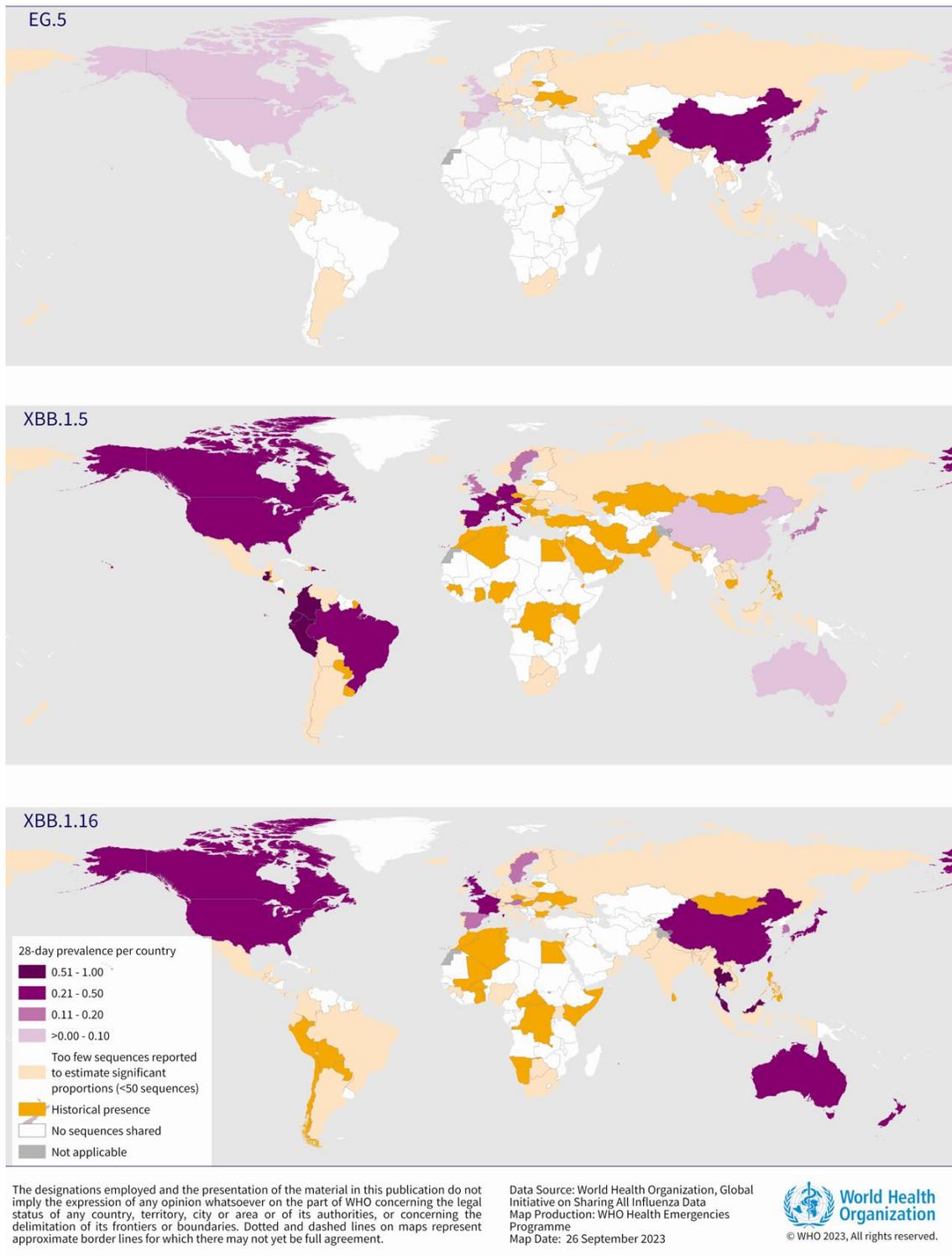
↑ increasing trend ↔ stable trend
 ↓ decreasing trend most prevalent variant(s)

* Includes descendant lineages, except those individually specified elsewhere in the table. For example, XBB* does not include XBB.1.5, XBB.1.16, EG.5, XBB.1.9.1, XBB.1.9.2, and XBB.2.3.

[†] Prevalence for BA.2.86 cannot be calculated due to the very small numbers of sequences.

[¥] due to the small numbers of sequences submitted in these regions, it has not been possible to determine trends for the VOIs and VUMs in these regions; this is also represented by the shaded cells in the table

Figure 9. Global 28-day prevalence of XBB.1.5, XBB.1.16 and EG.5, 31 July to 27 August 2023*+



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

+ Historical presence indicates countries previously reporting sequences of VOIs but have not reported within the period from 31 July to 27 August 2023.

Figure 10. The number and percentage of SARS-CoV-2 sequences, from 1 March to 31 August 2023

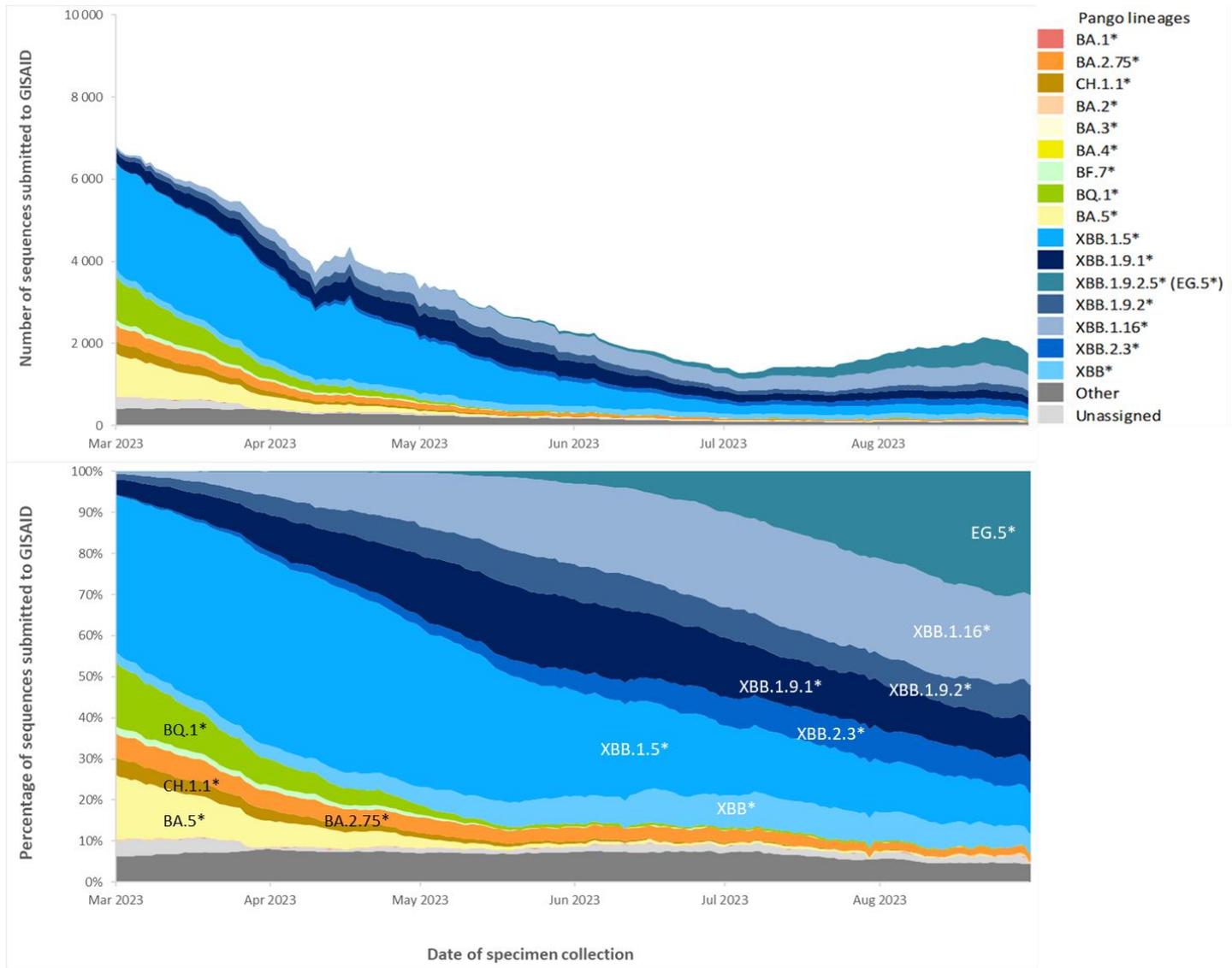


Figure 10. Panel A shows the number, and **Panel B** the percentage, of all circulating variants since March 2023. Omicron sister-lineages and additional Omicron VOC descendent lineages under further monitoring are shown. *BA.1**, *BA.2**, *BA.3**, *BA.4** and *BA.5** (* indicates inclusion of descendent lineages) include all BA.1, BA.2, BA.3, BA.4 and BA.5 pooled descendent lineages, except currently circulating variants shown individually. The *Unassigned* category includes lineages pending for a PANGO lineage name, whereas the *Other* category includes lineages that are assigned but not listed in the legend. Source: SARS-CoV-2 sequence data and metadata from GISAID, from 1 March to 31 August 2023.

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 EG.5 Updated Risk Evaluation, 21 September 2023](#)
- [WHO XBB.1.5 Updated Risk Assessment, 20 June 2023](#)
- [WHO XBB.1.16 Updated Risk Assessment, 5 June 2023](#)

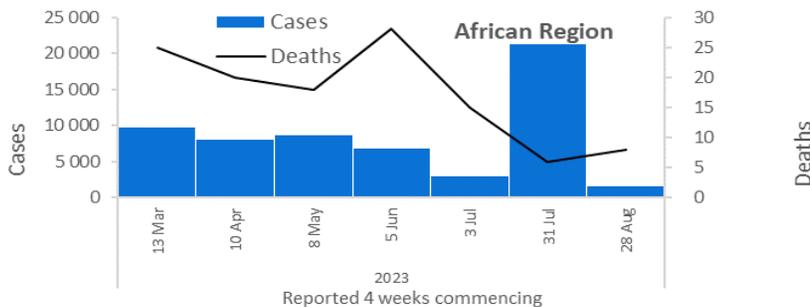
WHO regional overviews

Data for 28 August to 24 September 2023

African Region*

The African Region reported over 1634 new cases, a 92% decrease as 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 Mauritania (43 vs two new cases; +2050%), Madagascar (11 vs two new cases; +450%), and Angola (23 vs six new cases; +283%). The highest numbers of new cases were reported from Mauritius (682 new cases; 53.6 new cases per 100 000; +87%), the Democratic Republic of the Congo (338 new cases; <1 new case per 100 000; -57%), and Mozambique (234 new cases; <1 new case per 100 000; no case reported the previous 28-day period).

The number of new 28-day deaths in the Region increased by 33% as compared to the previous 28-day period, with eight new deaths reported. The highest numbers of new deaths were reported from Mozambique (six new deaths; <1 new death per 100 000; no death reported the previous 28-day period), Mauritius (one new death; <1 new death per 100 000; no death reported the previous 28-day period), and Zimbabwe (one new death; <1 new death per 100 000; -80%).



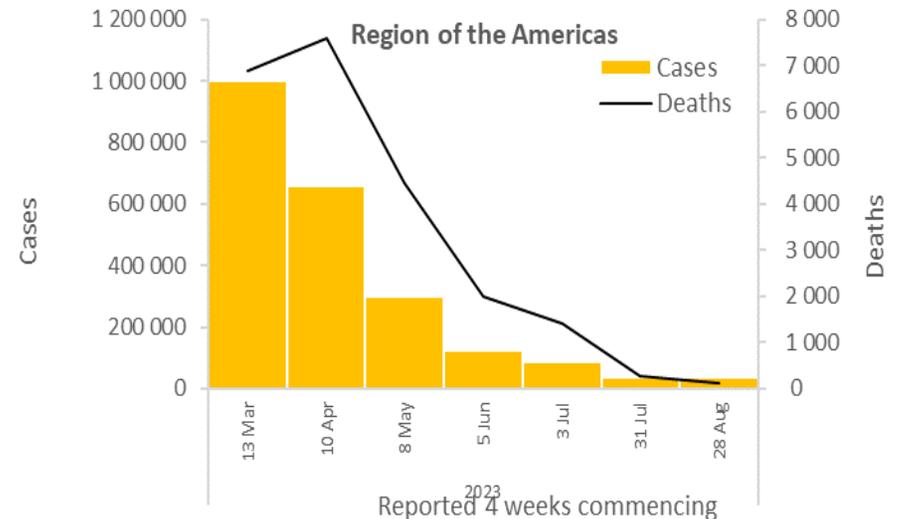
Updates from the [African Region](#)

* The spike of new cases reported during the period of 31 July 2023 to 27 August 2023 by the African Region is due to backlog reports for some African countries, resulting in an artificial spike of cases. These data should be interpreted considering this limitation of the backlog reports.

Region of the Americas

The Region of the Americas reported over 38 000 new cases, a +3% change as compared to the previous 28-day period. Six (11%) 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 (85 vs 33 new cases; +158%), Brazil (2242 vs 1115 new cases; +101%), and the Dominican Republic (four vs two new cases; +100%). The highest numbers of new cases were reported from Mexico (26 746 new cases; 20.7 new cases per 100 000; +3%), Argentina (5170 new cases; 11.4 new cases per 100 000; +16%), and Brazil (2242 new cases; 1.1 new cases per 100 000; +101%).

The number of new 28-day deaths in the Region decreased by 58% as compared to the previous 28-day period, with 122 new deaths reported. The highest numbers of new deaths were reported from Mexico (106 new deaths; <1 new death per 100 000; -26%), Bolivia (Plurinational State of) (five new deaths; <1 new death per 100 000; no death reported the previous 28-day period), and Colombia (five new deaths; <1 new death per 100 000; -83%).

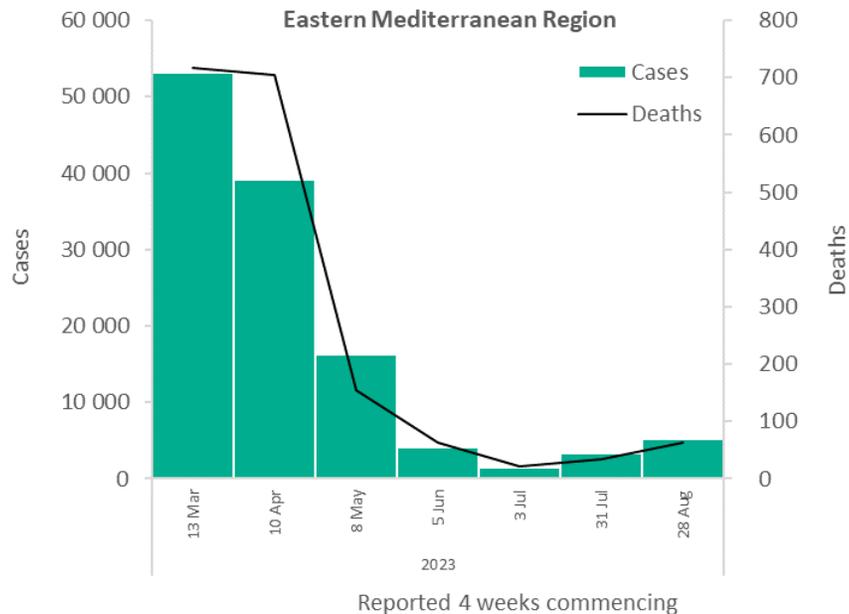


Updates from the [Region of the Americas](#)

Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 5200 new cases, a 53% increase as compared to the previous 28-day period. Three (14%) of the 22 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in the Islamic Republic of Iran (3075 vs 781 new cases; +294%), Morocco (1080 vs 282 new cases; +283%), and Kuwait (161 vs 112 new cases; +44%). The highest numbers of new cases were reported from the Islamic Republic of Iran (3075 new cases; 3.7 new cases per 100 000; +294%), Morocco (1080 new cases; 2.9 new cases per 100 000; +283%), and Afghanistan (884 new cases; 2.3 new cases per 100 000; +1%).

The number of new 28-day deaths in the Region increased by 88% as compared to the previous 28-day period, with 64 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (59 new deaths; <1 new death per 100 000; +269%) and Afghanistan (five new deaths; <1 new death per 100 000; -29%).

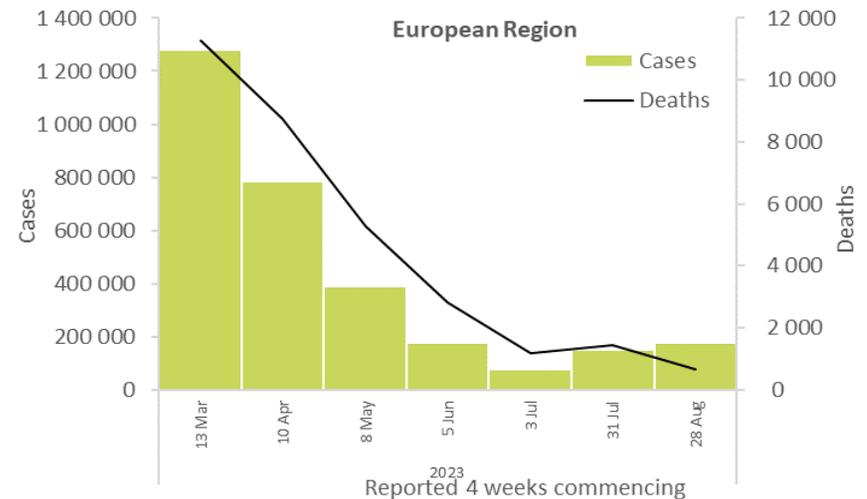


Updates from the [Eastern Mediterranean Region](#)

European Region

The European Region reported over 177 000 new cases, a 19% increase as compared to the previous 28-day period. Twenty-two (36%) of the 61 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Azerbaijan (509 vs 67 new cases; +660%), Liechtenstein (13 vs two new cases; +550%), and Bosnia and Herzegovina (53 vs 11 new cases; +382%). The highest numbers of new cases were reported from Italy (60 885 new cases; 102.1 new cases per 100 000; +84%), the United Kingdom (29 959 new cases; 44.1 new cases per 100 000; -5%), and the Russian Federation (28 441 new cases; 19.5 new cases per 100 000; +132%).

The number of new 28-day deaths in the Region decreased by 54% as compared to the previous 28-day period, with 661 new deaths reported. The highest numbers of new deaths were reported from Italy (232 new deaths; <1 new death per 100 000; +6%), Sweden (63 new deaths; <1 new death per 100 000; +15%), and the Russian Federation (51 new deaths; <1 new death per 100 000; -68%).

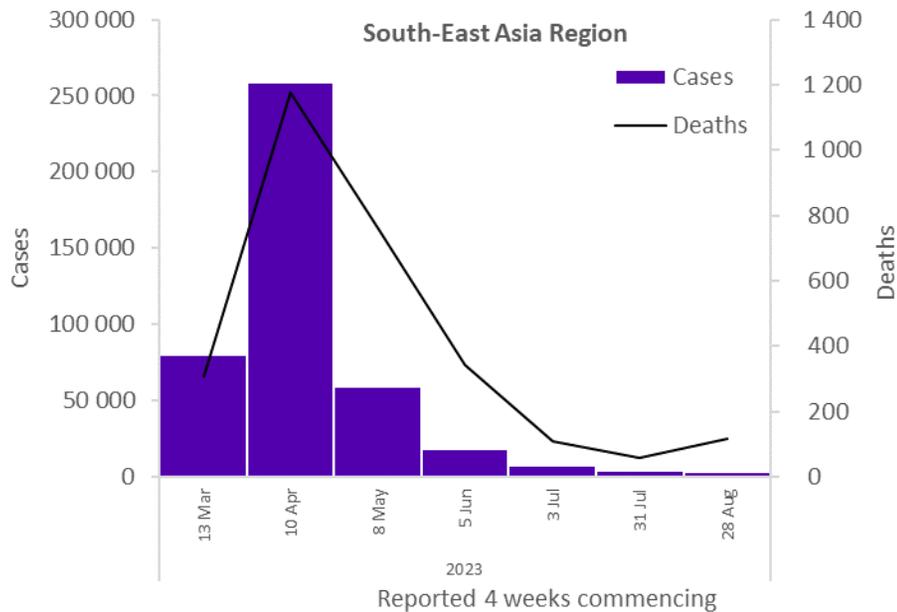


Updates from the [European Region](#)

South-East Asia Region

The South-East Asia Region reported over 3000 new cases, a 23% decrease as compared to the previous 28-day period. No country 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 India (1562 new cases; <1 new case per 100 000; +14%), Thailand (877 new cases; 1.3 new cases per 100 000; -29%), and Bangladesh (385 new cases; <1 new case per 100 000; -56%).

The number of new 28-day deaths in the Region increased by 111% as compared to the previous 28-day period, with 118 new deaths reported. The highest numbers of new deaths were reported from India (103 new deaths; <1 new death per 100 000; +758%), Thailand (14 new deaths; <1 new death per 100 000; -59%), and Bangladesh (one new death; <1 new death per 100 000; -75%).

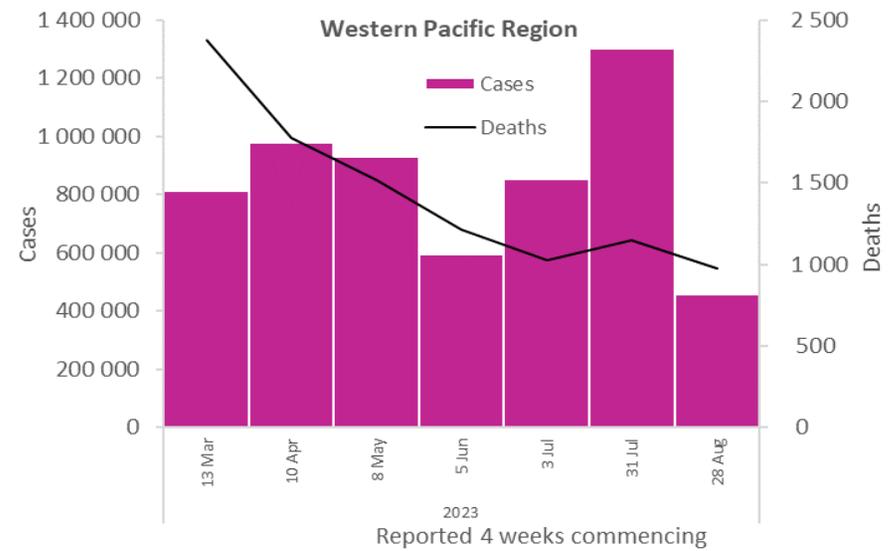


Updates from the [South-East Asia Region](#)

Western Pacific Region

The Western Pacific Region reported over 458 000 new cases, a 65% decrease as compared to the previous 28-day period. Six (17%) 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 Cook Islands (six vs one new cases; +500%), Guam (161 vs 59 new cases; +173%) and Tonga (four vs two new cases; +100%). The highest numbers of new cases were reported from the Republic of Korea (392 073 new cases; 764.7 new cases per 100 000; -70%), Singapore (24 594 new cases; 420.4 new cases per 100 000; +20%), and Australia (18 774 new cases; 73.6 new cases per 100 000; -10%).

The number of new 28-day deaths in the Region decreased by 15% as compared to the previous 28-day period, with 977 new deaths reported. The highest numbers of new deaths were reported from Australia (734 new deaths; 2.9 new deaths per 100 000; +263%), the Republic of Korea (122 new deaths; <1 new death per 100 000; -80%), and New Zealand (46 new deaths; 1 new death per 100 000; -52%).



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. Case detection, inclusion criteria, testing strategies, reporting practices, and data cut-off and lag times differ between countries/territories/areas. 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. COVID-19 confirmed cases and deaths reported in the last seven days by countries, territories, and areas, and WHO Region (reported in previous issues) are now available at: <https://covid19.who.int/table>.

‘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.

New case and death counts from the Region of the Americas: Starting from the week commencing on 11 September 2023, the source of the data from the Region of the Americas was switched to the aggregated national surveillance data received through the COVID-19, Influenza, RSV and Other Respiratory Viruses program in the Americas. Data have been included retrospectively since 31 July 2023.

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.