

COVID-19 Epidemiological Update

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Key highlights

- Globally, during the 28-day period from 25 September to 22 October 2023, 93 countries reported COVID-19 cases and 38 countries reported COVID-19 deaths. Note that this does not reflect the actual number of countries where cases or deaths are occurring as a number of countries have stopped or delayed reporting of these data.
- From the available data, the number of reported cases and deaths during the 28-day period have declined, with over half a million new cases and over 4700 new deaths, a decrease of 42% and 43%, respectively, compared to the previous 28 days (28 August to 24 September 2023). Trends in the number of reported new cases and deaths should be interpreted with caution due to decreased testing and sequencing, alongside reporting delays in many countries.
- SARS-CoV-2 PCR percent positivity reported through sentinel sites on the expanded Global Influenza Surveillance and Response System (GISRS) platform has remained stable at 8% over the last 28-days.
- During the past 28-day period, 60 and 41 countries provided data on COVID-19 hospitalizations and admissions to an intensive care unit (ICU) at least once, respectively. At the global level, during the 28-day period of 18 September to 15 October 2023, a total of 95 989 new hospitalizations and 1603 new ICU admissions were reported, a decrease of 11% and an increase of 13% respectively, compared to the previous 28-day period of 21 August to 17 September 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 six variants under monitoring (VUMs). Globally, EG.5 represents 45.8% of sequences shared with GISAID and is presently the most prevalent VOI and has been reported by 87 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](#)
- [COVID-19 surveillance reporting requirements for Member States](#)
- [Summary Tables](#) of COVID-19 vaccine effectiveness (VE) studies and results (last updated 19 October 2023)
- [Forest Plots](#) displaying results of COVID-19 VE studies (last updated 23 October 2023)
- [Special focus WEU on interpreting relative VE](#) (29 June 2022, pages 6-8)
- [Neutralization plots](#) (last updated 2 October 2023)
- [WHO COVID-19 VE Resources](#)

Global overview

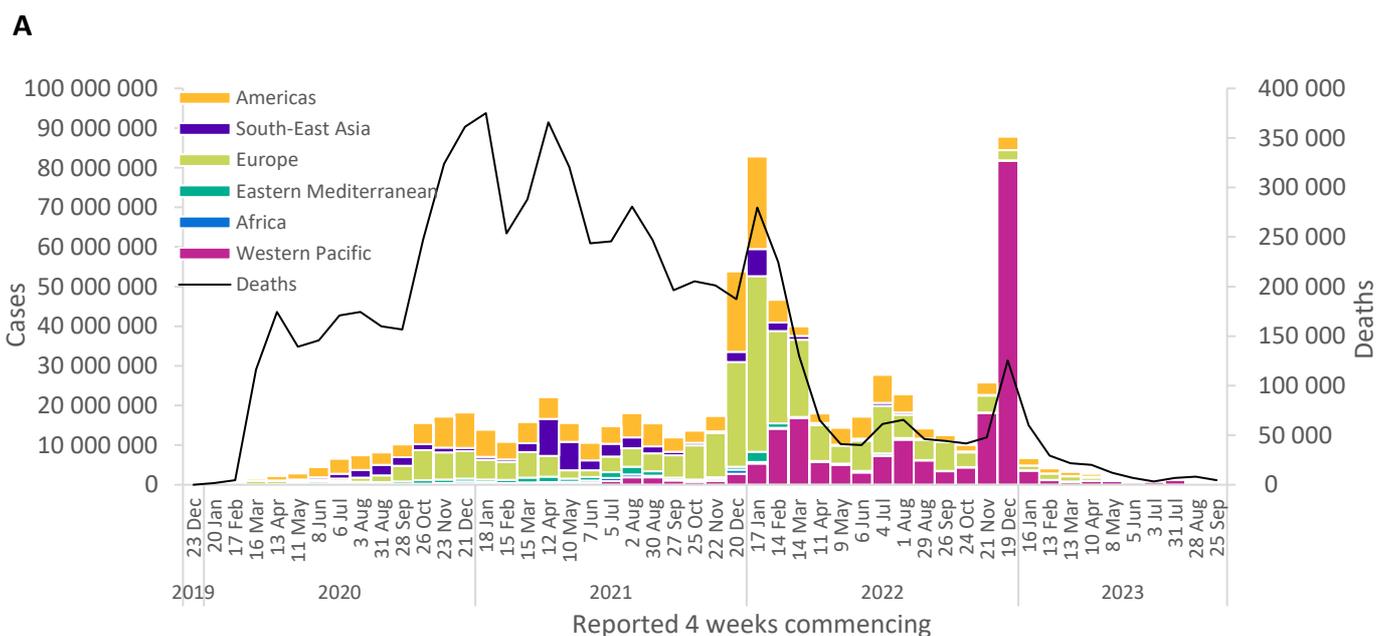
Data as of 22 October 2023

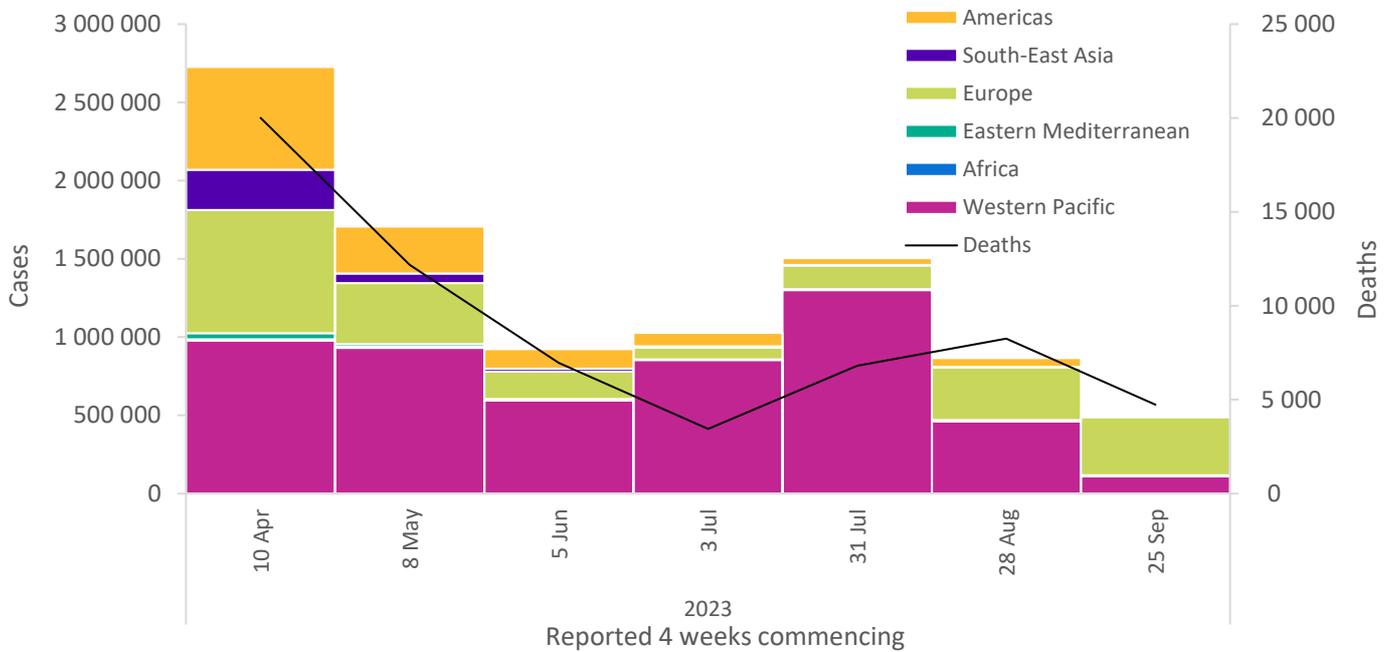
Globally, over half a million new cases were reported during the 28-day period from 25 September to 22 October 2023. The number of new cases decreased by 42% as compared to the previous 28-day period (Figure 1, Table 1). Over 4700 new deaths were reported during this period, a decrease of 43% as compared to the previous 28-day period. As of 22 October 2023, over 771 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 40% (93 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 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. 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 41, 9 to 15 October 2023) show that the SARS-CoV-2 PCR percent positivity rate from reporting countries averages approximately 8% from sentinel sites (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 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 22 October 2023 (A); 10 April to 22 October 2023 (B)**



B

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

At the regional level, the number of newly reported 28-day cases decreased across four of the six WHO regions: the Region of the Americas (-83%), the Western Pacific Region (-76%), the African Region (-67%), and the Eastern Mediterranean Region (-11%); while case numbers increased in two WHO regions: the European Region (+10%), and the South-East Asia Region (+14%). The number of newly reported 28-day deaths decreased across four regions: the Region of the Americas (-68%), the African Region (-50%), the European Region (-45%), and the Western Pacific Region (-20%); while death numbers increased in two WHO regions: the Eastern Mediterranean Region (+55%), and the South-East Asia Region (+978%)— primarily due to retrospective adjustment from India.

At the country level, the highest numbers of new 28-day cases were reported from Italy (141 255 new cases; +24%), the Russian Federation (83 765 new cases; +195%), Singapore (61 230 new cases; +149%), the United Kingdom (53 280 new cases; +6%), and Romania (30 585 new cases; -20%). The highest numbers of new 28-day deaths were reported from India (1260 new deaths; +1123%) – primarily due to retrospective adjustment, Italy (560 new deaths; +36%), the Russian Federation (172 new deaths; +237%), Sweden (138 new deaths; +28%), and Australia (120 new deaths; -22%).

Table 1. Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 22 October 2023**

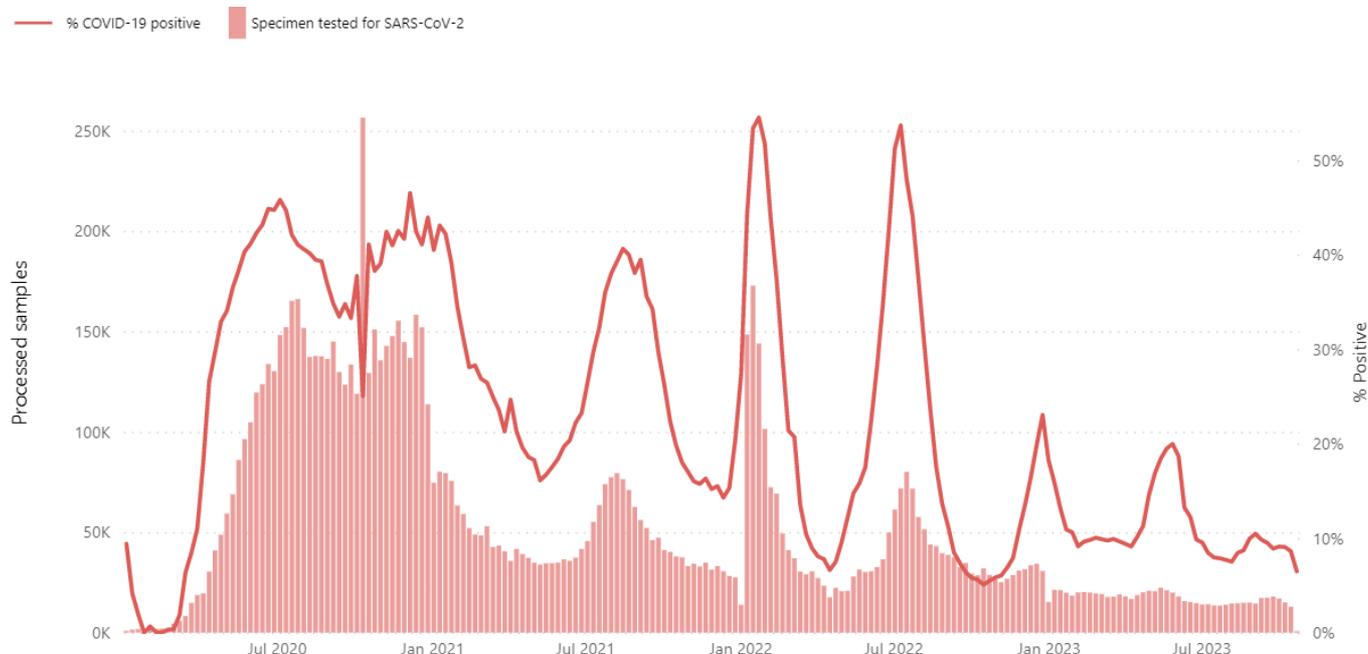
WHO Region	New cases in last 28 days (%)	Change in new cases in last 28 days *	Cumulative cases (%)	New deaths in last 28 days (%)	Change in new deaths in last 28 days *	Cumulative deaths (%)	Countries reporting cases in the last 28 days	Countries reporting deaths in the last 28 days
Europe	371 855 (74%)	10%	276 670 008 (36%)	1 352 (29%)	-45%	2 252 210 (32%)	27/61 (44%)	20/61 (33%)
Western Pacific	111 871 (22%)	-76%	207 400 028 (27%)	319 (7%)	-20%	417 633 (6%)	18/35 (51%)	7/35 (20%)
Americas [§]	9 482 (2%)	-83%	193 318 236 (25%)	1 694 (36%)	-68%	2 969 557 (43%)	19/56 (34%)	5/56 (9%)
Eastern Mediterranean	4 629 (1%)	-11%	23 398 767 (3%)	99 (2%)	55%	351 564 (5%)	4/22 (18%)	2/22 (9%)
South-East Asia	3 488 (1%)	14%	61 208 525 (8%)	1 272 (27%)	978%	808 053 (12%)	6/10 (60%)	2/10 (20%)
Africa	909 (<%)	-67%	9 553 390 (1%)	3 (<%)	-50%	175 443 (3%)	19/50 (38%)	2/50 (4%)
Global	502 234 (100%)	-42%	771 549 718 (100%)	4 739 (100%)	-43%	6 974 473 (100%)	93/234 (40%)	38/234 (16%)

*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.

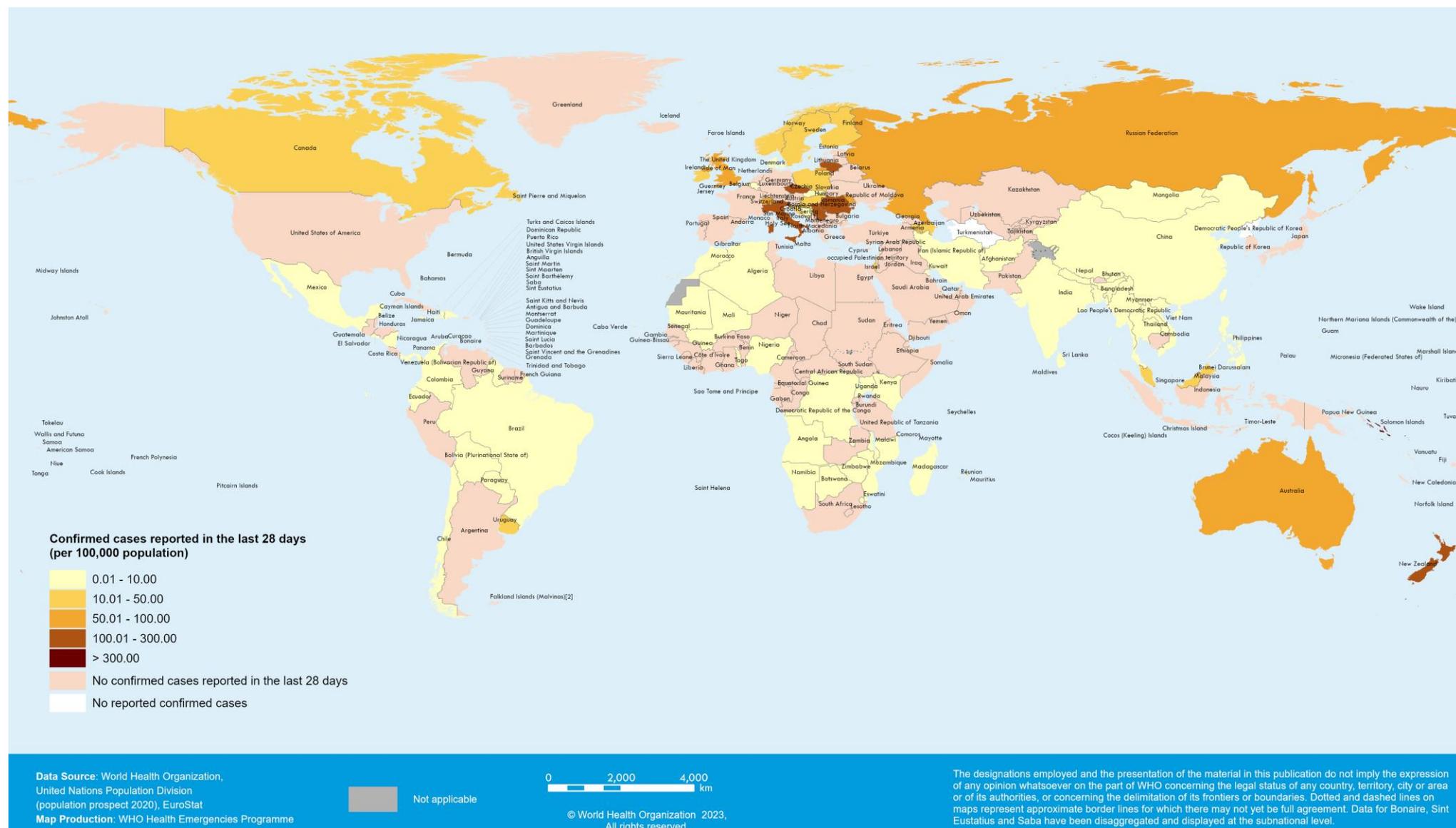
**See Annex 1: Data, table, and figure notes

Figure 2. SARS-CoV-2 test positivity rates and specimens reported to FluNet from sentinel sites; 5 January 2020 to 22 October 2023



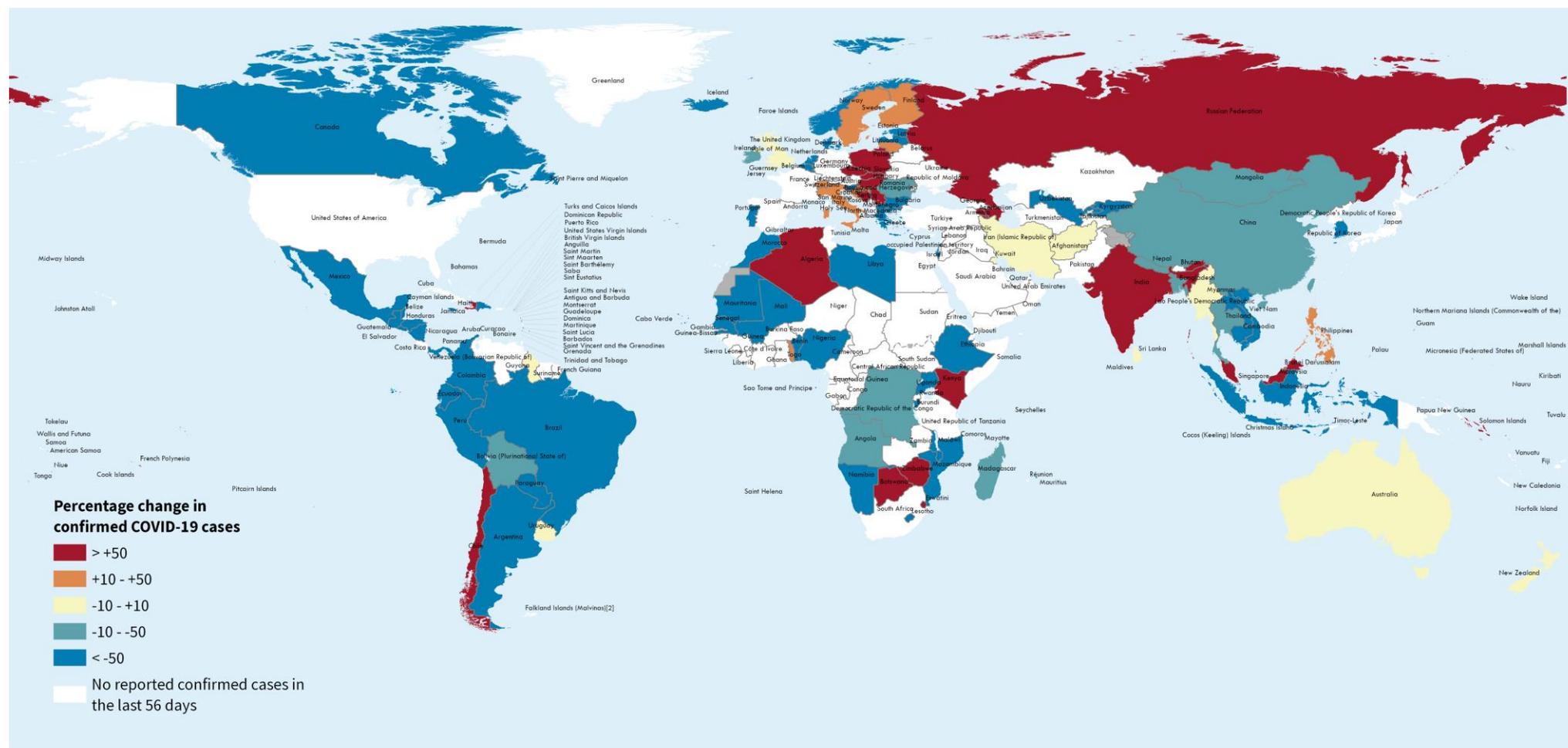
Source: Influenza and SARS-CoV-2 surveillance data reported to FluNet; Global Influenza Surveillance and Response System

Figure 3. Number of confirmed COVID-19 cases reported over the last 28 days per 100 000 population, as of 22 October 2023**



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

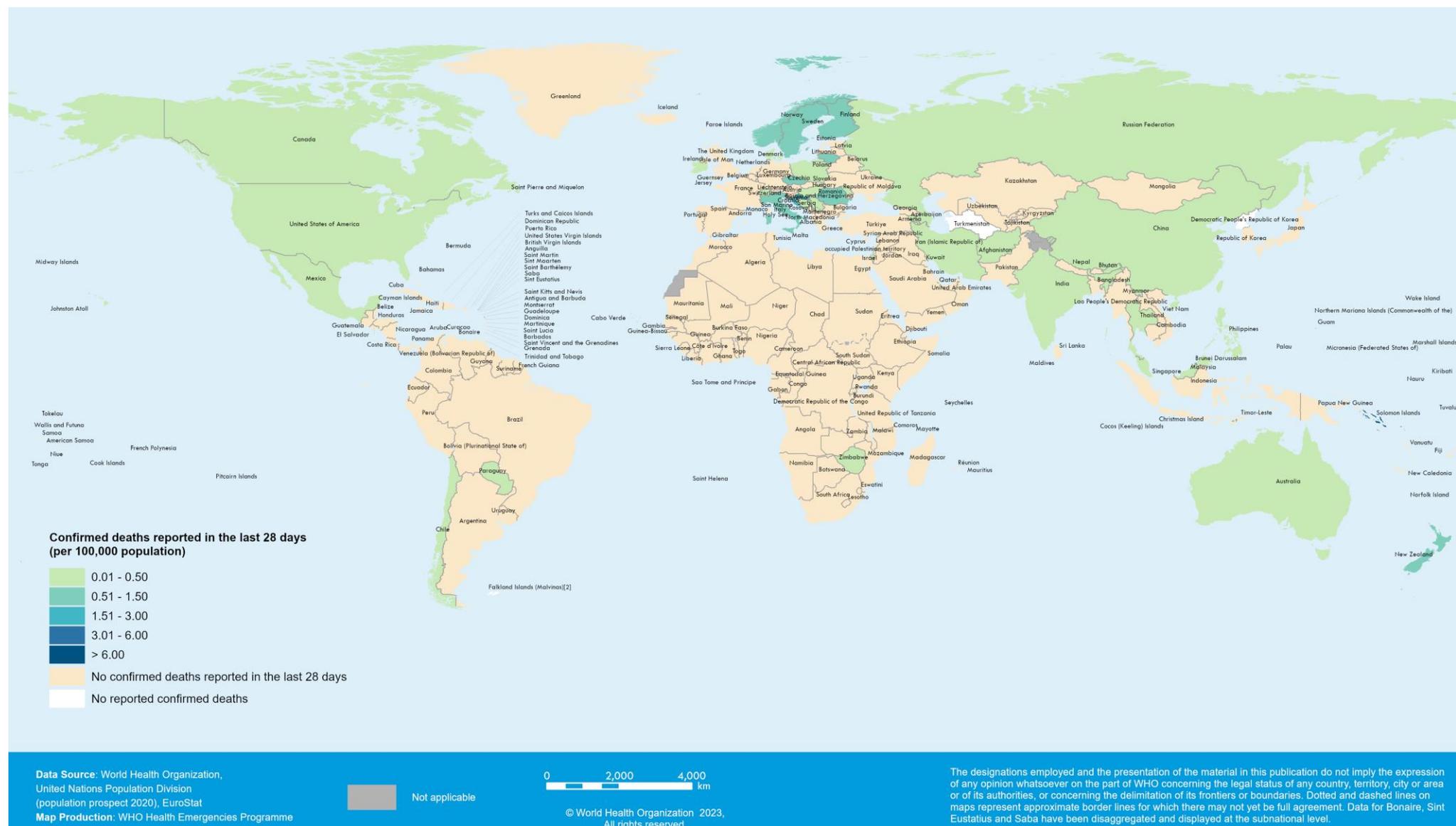
Figure 4. Percentage change in confirmed COVID-19 cases over the last 28 days relative to the previous 28 days, as of 22 October 2023**



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.

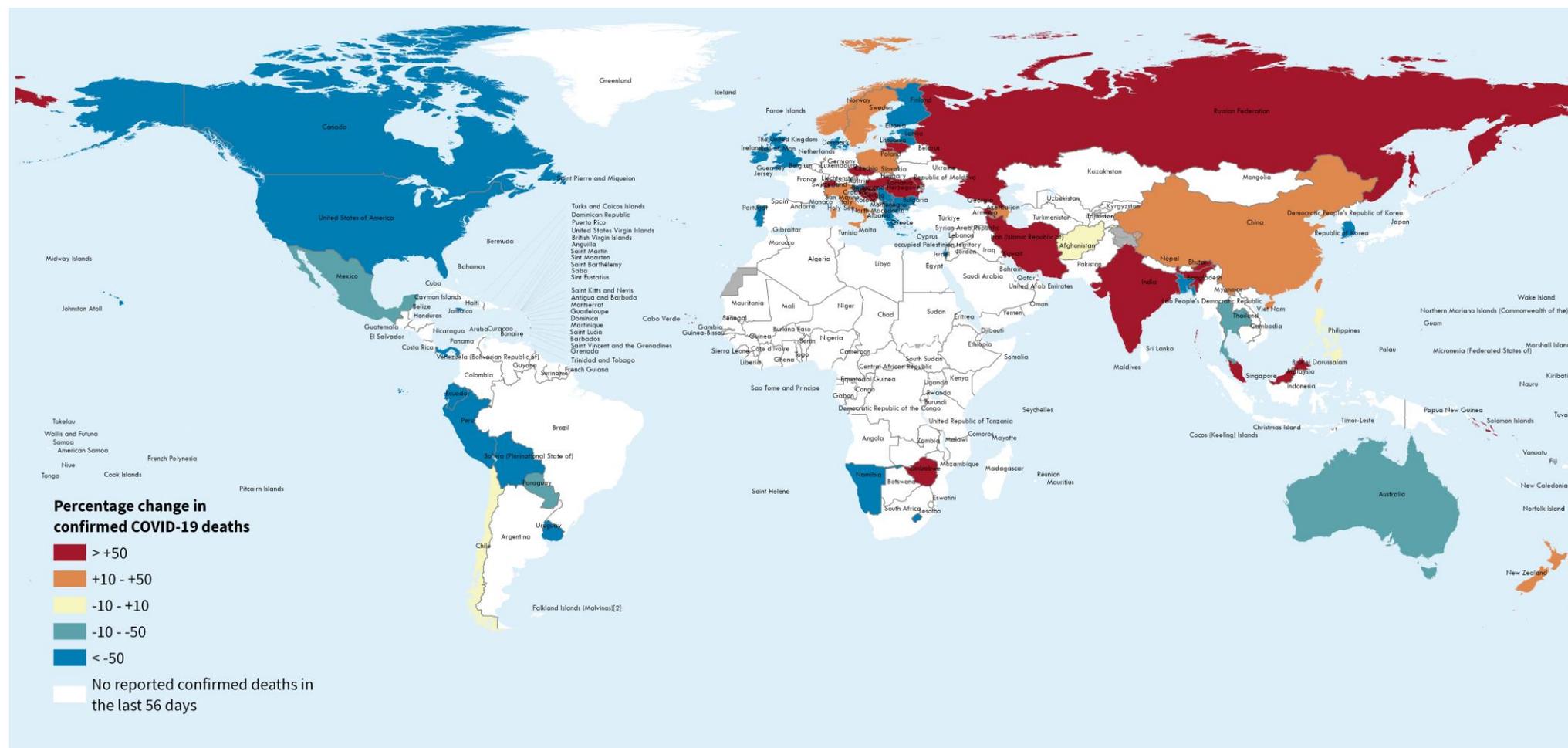
**See [Annex 1: Data, table, and figure notes](#)

Figure 5. Number of COVID-19 deaths reported over the last 28 days per 100 000 population, as of 22 October 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 22 October 2023**



Data Source: World Health Organization

Map Production: WHO Health Emergencies Programme

Not applicable



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

Hospitalizations and ICU admissions

At the global level, during the 28-day period of 18 September to 15 October 2023, a total of 95 989 new hospitalizations and 1603 new intensive care unit (ICU) admissions were reported from 60 and 41 countries, respectively (Figure 7). This represents an 11% decrease and a 13% increase, respectively, compared to the previous 28 days (21 August to 17 September 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.

New hospitalizations

During the 28-day reporting period, 60 (26%) 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 (19 countries; 38%), followed by the Region of the Americas (17 countries; 30%), the European Region (17 countries; 28%), the South-East Asia Region (two countries; 20%), and the Western Pacific Region (five countries; 14%). No country in the Eastern Mediterranean Region shared hospitalization data with WHO during the period. The percentage of countries that consistently* reported new hospitalizations for the period was 12% (29 countries) (Table 2).

Among the 29 countries consistently reporting new hospitalizations, 16 (55%) countries registered an increase of 20% or greater in hospitalizations during the reporting 28 days compared to the previous 28-day period: Saint Lucia (15 vs two; +650%), Chile (89 vs 19; +368%), Bolivia (18 vs five; +260%), Slovakia (399 vs 128; +212%), Czechia (551 vs 184; +199%), North Macedonia (46 vs 17; +171%), Honduras (84 vs 40; +110%), Brunei (33 vs 17; +94%), New Zealand (758 vs 398; +90%), Singapore (894 vs 511; +75%), Lithuania (179 vs 126; +42%), Greece (3793 vs 2672; +42%), the Netherlands (655 vs 477; +37%), Brazil (2927 vs 2296; +27%), Kyrgyzstan (14 vs 11; +27%), and Estonia (88 vs 70; +26%).

The highest numbers of hospitalizations were reported from the United States of America (68 409 vs 77 794: -12%), Mexico (6214 vs 7347; -15%), and Greece (3793 vs 2672; +42%).

* “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 hospitalizations reported by WHO regions, 18 September to 15 October 2023 compared 21 August to 17 September 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	19/50 (38%)	9	0/50 (<1%)	0 ⁺	N/A***
Americas	17/56 (30%)	78 305	12/56 (21%)	77 988	-11%
Eastern Mediterranean	0/22 (<1%)	N/A	0/22 (<1%)	N/A	N/A
Europe	17/61 (28%)	13 664	11/61 (18%)	7 035	+24%
South-East Asia	2/10 (20%)	61	2/10 (20%)	61	-21%
Western Pacific	5/35 (14%)	3 950	4/35 (11%)	3 950	+21%
Global	60/234 (26%)	95 989	29/234 (12%)	89 034	-8%

*Percent change is calculated for countries reporting consistently both in the reporting 28 days and the previous 28 days (comparison period). To be able to compare the two periods, only the countries which reported consistently in both the reporting 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, 18 September to 15 October 2023 compared 21 August to 17 September 2023

Region	Country/Territory	New Hospitalization in last 28 days	% Change from previous 28-day period
Americas	United States of America	68 409	-12%
Americas	Mexico	6 214	-15%
Americas	Brazil	2 927	27%
Americas	Colombia	220	-31%
Americas	Guatemala	9	-44%
Americas	Honduras	84	110%
Americas	Bolivia	18	260%
Americas	Chile	89	368%
Americas	Dominica	1	N/A*
Americas	Saint Lucia	15	650%
Americas	Suriname	2	N/A
Americas	Haiti	0	N/A
Europe	Greece	3 793	42%
Europe	Ireland	1 178	-21%
Europe	Portugal	35	-91%
Europe	Netherlands	655	37%
Europe	Malta	97	-17%
Europe	Czechia	551	199%
Europe	Slovakia	399	212%
Europe	Lithuania	179	42%
Europe	Estonia	88	26%
Europe	Kyrgyzstan	14	27%
Europe	North Macedonia	46	171%
South-East Asia	Indonesia	35	-35%
South-East Asia	Bangladesh	26	13%
Western Pacific	Malaysia	2 265	-3%
Western Pacific	Singapore	894	75%
Western Pacific	New Zealand	758	90%
Western Pacific	Brunei	33	94%

* N/A represents not applicable

New ICU admissions

Across the six WHO regions, in the 28-day reporting period, a total of 41 (18%) 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 Region of the Americas (12 countries; 21%), the Western Pacific Region (six countries; 17%), the African Region (eight countries; 16%), and the South-East Asia Region (one country; 10%). 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 9% (22 countries).

Among the 22 countries consistently reporting new ICU admissions, 13 (59%) countries showed an increase of 20% or greater in new ICU admissions during the reporting 28 days compared to the previous 28-day period: North Macedonia (four vs one; +300%), Honduras (three vs one; +200%), Indonesia (eight vs three; +167%), Chile (17 vs seven; +143%), Slovakia (seven vs three; +133%), Singapore (18 vs nine; +100%), Guatemala (four vs two; +100%), Greece (84 vs 50; +68%), Lithuania (17 vs 12; +42%), the Netherlands (43 vs 31; +39%), Sweden (26 vs 19; +37%), Brazil (955 vs 769; +24%), and Ireland (26 vs 21; +24%). The highest numbers of new ICU admissions were reported from Brazil (955 vs 769; +24%), Australia (91 vs 100; -9%), and Greece (84 vs 50; +68%).

Table 4. Number of new ICU admissions reported by WHO regions, 18 September to 15 October 2023 compared 21 August to 17 September 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	8/50 (16%)	0 ⁺	0/50 (<1%)	0	N/A***
Americas	12/56 (21%)	1 010	8/56 (14%)	981	+26%
Eastern Mediterranean	0/22 (<1%)	N/A	0/22 (<1%)	N/A	N/A
Europe	14/61 (23%)	457	8/61 (13%)	247	+59%
South-East Asia	1/10 (10%)	8	1/10 (10%)	8	+167%
Western Pacific	6/35 (17%)	128	5/35 (14%)	128	-7%
Global	41/235 (18%)	1603	22/235 (9%)	1364	+27%

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

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

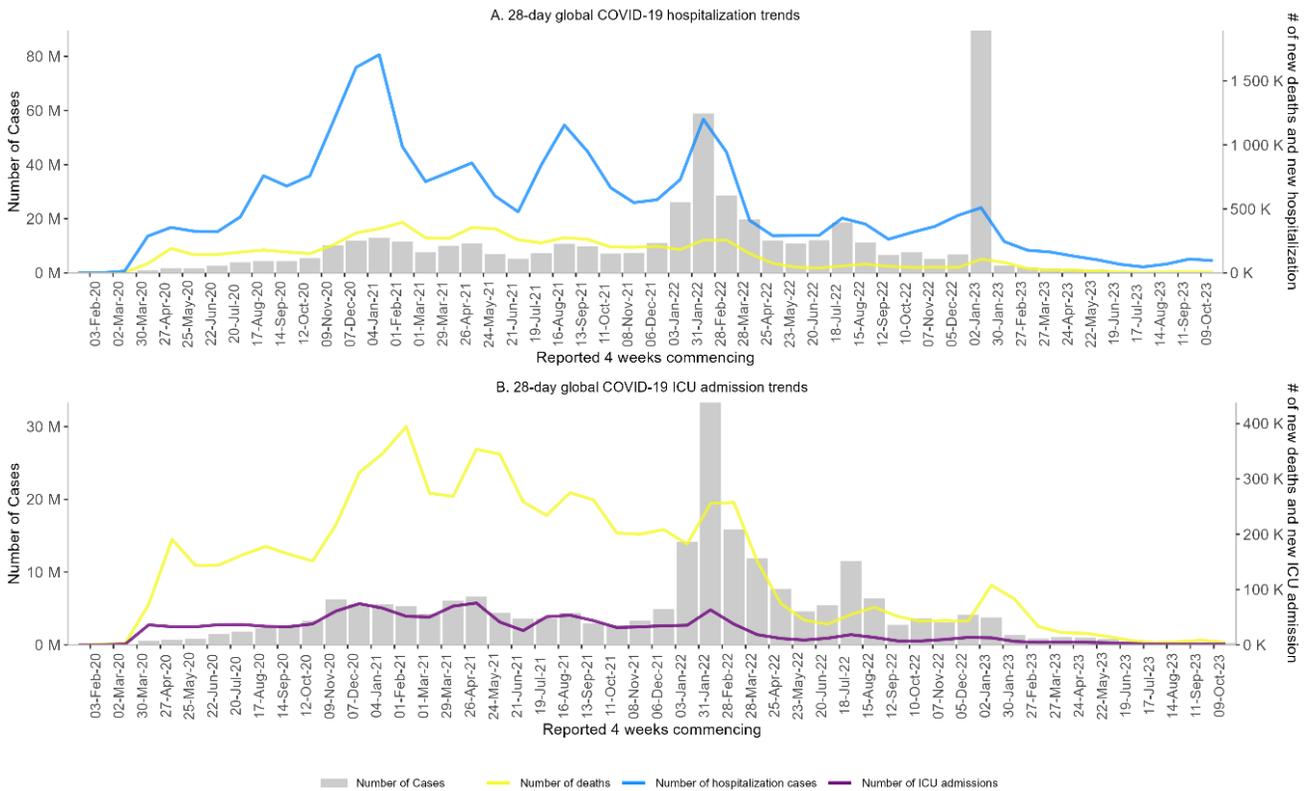
***N/A represents not available.

⁺ 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, 18 September to 15 October 2023 compared to 21 August to 17 September 2023.

Region	Country/Territory	New Hospitalization in last 28 days	% Change from previous 28-day period
Americas	Brazil	955	24%
Americas	Chile	17	143%
Americas	Guatemala	4	100%
Americas	Honduras	3	200%
Americas	Suriname	1	-
Americas	Bolivia	1	0%
Americas	Saint Lucia	0	-
Americas	Dominica	0	-
Europe	Greece	84	68%
Europe	Netherlands	43	39%
Europe	Sweden	26	37%
Europe	Ireland	26	24%
Europe	Lithuania	17	42%
Europe	Slovakia	7	133%
Europe	North Macedonia	4	300%
Europe	Estonia	1	-50%
South-East Asia	Indonesia	8	167%
Western Pacific	Australia	91	-9%
Western Pacific	Singapore	18	100%
Western Pacific	New Zealand	13	-41%
Western Pacific	Malaysia	6	0%
Western Pacific	Brunei Darussalam	0	-

Figure 7. 28-day global COVID-19 new hospitalizations and ICU admissions, as of 15 October 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 hospitalized patients.

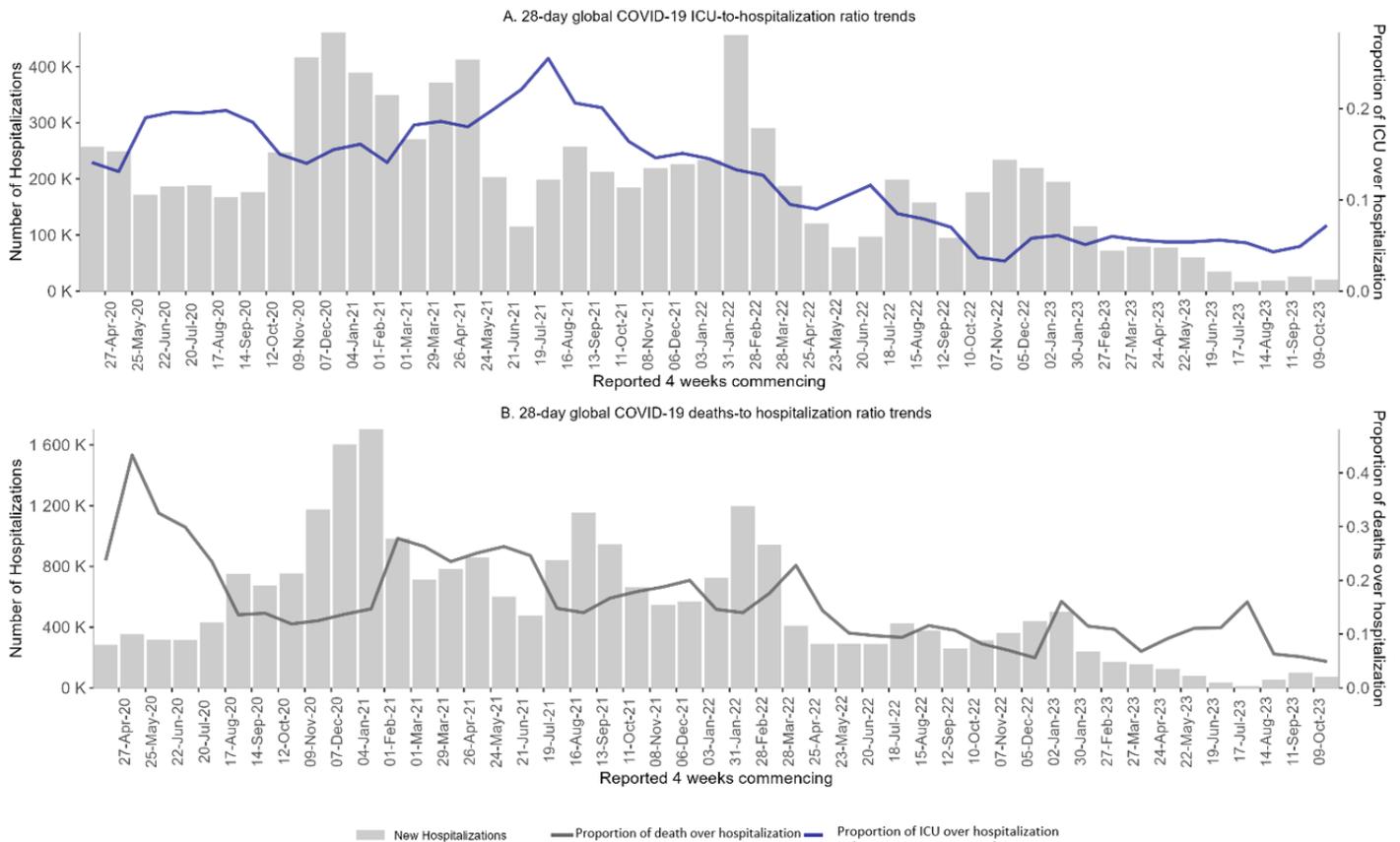
These indicators are subject to the same limitations mentioned above and their calculations are limited to the countries reporting all relevant data elements (hospitalizations; and ICU admissions or deaths, respectively) in a given week or month. It should be noted that there may be differences in reporting 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.

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 in early diagnosis and 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.

Figure 8. COVID-19 ICU-to-hospitalization ratio and death-to-hospitalization ratio, as of 15 October 2023



Note: Recent weeks are subject to reporting delays and trends should be interpreted with caution. ICU ratio figure is created from the data of the countries which reported both new hospitalizations and new ICU admissions. Death ratio figure is created from the data of the countries which 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 25 September to 22 October 2023 (28 days), 24 265 SARS-CoV-2 sequences were shared through GISAID. This compares to 76 745 SARS-CoV-2 sequences shared in the previous 28-day period (28 August to 24 September 2023) and 52 479 sequences in the 28-day period prior to that, from 7 to 17 August 2023. The number of sequences presented during the mentioned periods is likely to change in subsequent reports, due to retrospective updates.

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

- Three variants of interest (VOIs): XBB.1.5, XBB.1.16 and EG.5.
- Six variants under monitoring (VUMs): BA.2.86, DV.7, XBB, XBB.1.9.1, XBB.1.9.2 and XBB.2.3.

Table 6 shows the number of countries reporting VOIs and VUMs, and their prevalence from epidemiological week 36 (4 to 10 September 2023) to week 40 (2 to 8 October 2023) in 2023. 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.

Globally, all VOIs have been detected in all WHO regions and EG.5 remains the most prevalent VOI and has been reported by 87 countries. EG.5 continues to rise in prevalence, accounting for 45.8% of sequences submitted to GISAID in week 40 in comparison to 38.8% in week 36 (Figure 9 & 10, Table 6). This includes two descendent lineages, HK.5 and HV.1, which were included since 23 October 2023. The last [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 9.0% of sequences in week 40, a decrease from 9.7% in week 36. Similarly, XBB.1.6 accounted for 16.7% of sequences in week 40 and 20.2% in week 36 (Figure 10, Table 6).

On 23 October 2023, BA.2.75 was removed from the list of VUMs due to its low global prevalence (<1%) over the past eight weeks. Similarly, CH.1.1 has been replaced on the list of VUMs by one of its descendent lineages, DV.7. The variant DV.7 has shown an increase in its global prevalence over the last five weeks, from 1.6% in week 36 to 2.0% in week 40. Among other VUMs, BA.2.86 and DV.7 have shown slight increases during the reporting period, whereas XBB, XBB.1.9.2 and XBB.2.3 have shown decreasing trends and a stable trend noted for XBB.1.9.1.

At the regional level, sufficient sequencing data to calculate variant prevalence during week 36 to 40 were available from three WHO regions: the Region of the Americas, the Western Pacific Region, and the European Region (Table 7). 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. Amongst the VUMs, all three regions observed decreasing or stable trends for XBB, XBB.1.9.1, XBB.1.9.2 and XBB.2.3. DV.7 presented an increasing trend in the Region of the Americas and a stable trend in the European and Western Pacific regions. The European Region observed an increasing trend in the prevalence of BA.2.86 whilst the Region of the Americas and the Western Pacific Region observed stable trends.

With the declining trends of testing and sequencing globally (Figure 10), it is increasingly challenging 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. As shown in Figure 9, 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 36 to week 40 of 2023

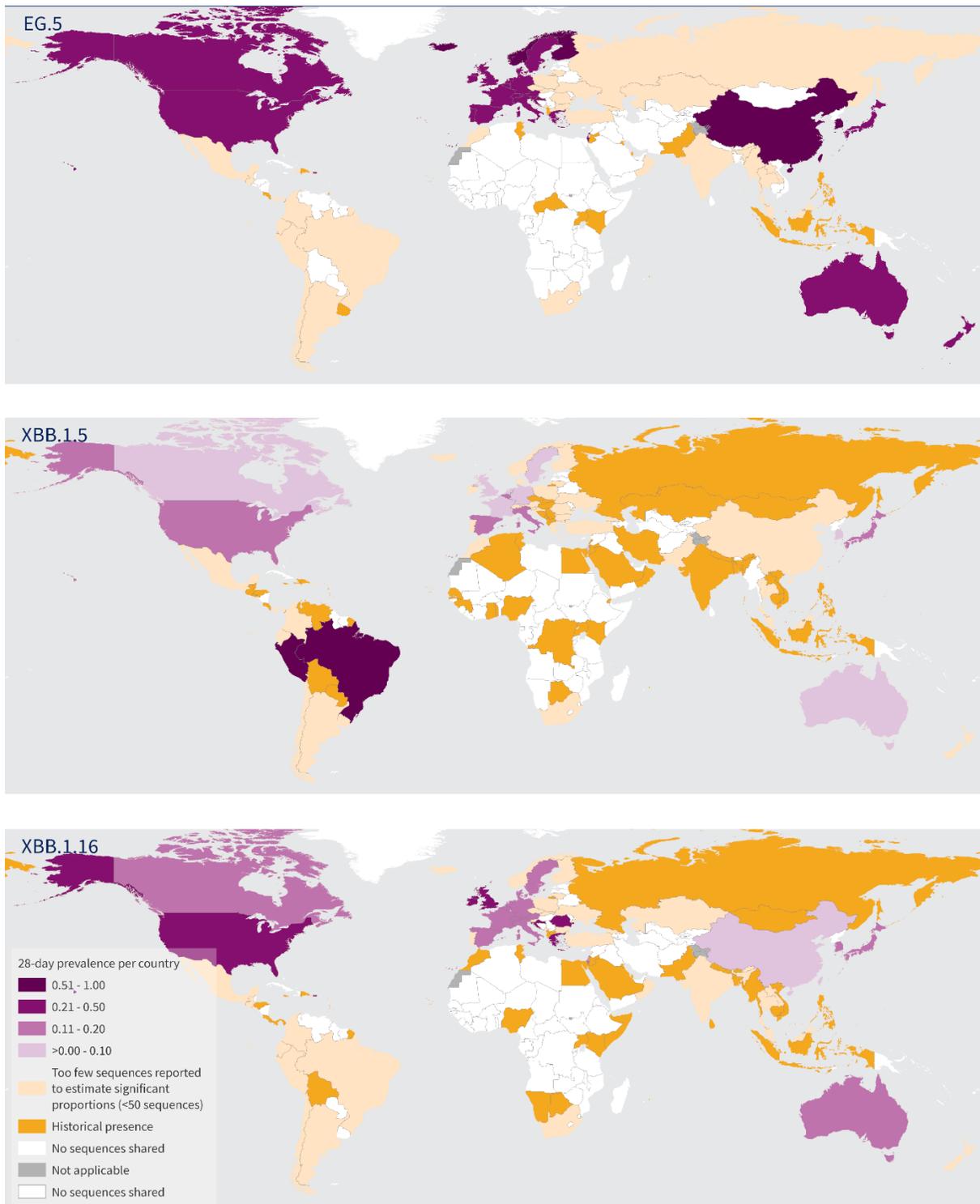
Lineage	Countries [§]	Sequences [§]	2023-36	2023-37	2023-38	2023-39	2023-40
VOIs							
XBB.1.5*	127	301 730	9.7	9.6	9.0	8.7	9.0
XBB.1.16*	116	85 668	20.2	18.9	18.2	17.7	16.7
EG.5*	87	72 656	38.8	40.9	43.6	45.1	45.8
VUMs							
BA.2.86*	30	904	0.5	0.5	0.9	1.3	2.0
DV.7*	36	2 792	1.6	1.5	1.6	1.9	2.0
XBB*	141	84 707	4.4	4.1	3.7	3.1	3.0
XBB.1.9.1*	119	75 734	10.0	10.8	9.7	10.0	10.5
XBB.1.9.2*	95	35 013	3.8	3.5	3.3	2.9	2.1
XBB.2.3*	101	24 791	6.2	5.6	5.3	4.9	4.3
Unassigned	92	151 977	0.1	0.0	0.0	0.0	0.0
Other+	211	6 783 525	4.2	4.0	4.4	4.2	4.2

[§] 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.

Figure 9. Global 28-day prevalence of XBB.1.5, XBB.1.16 and EG.5, 4 September to 1 October 2023*+



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

Data Source: World Health Organization, Global Initiative on Sharing All Influenza Data
 Map Production: WHO Health Emergencies Programme
 Map Date: 26 October 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 4 September to 1 October 2023.

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

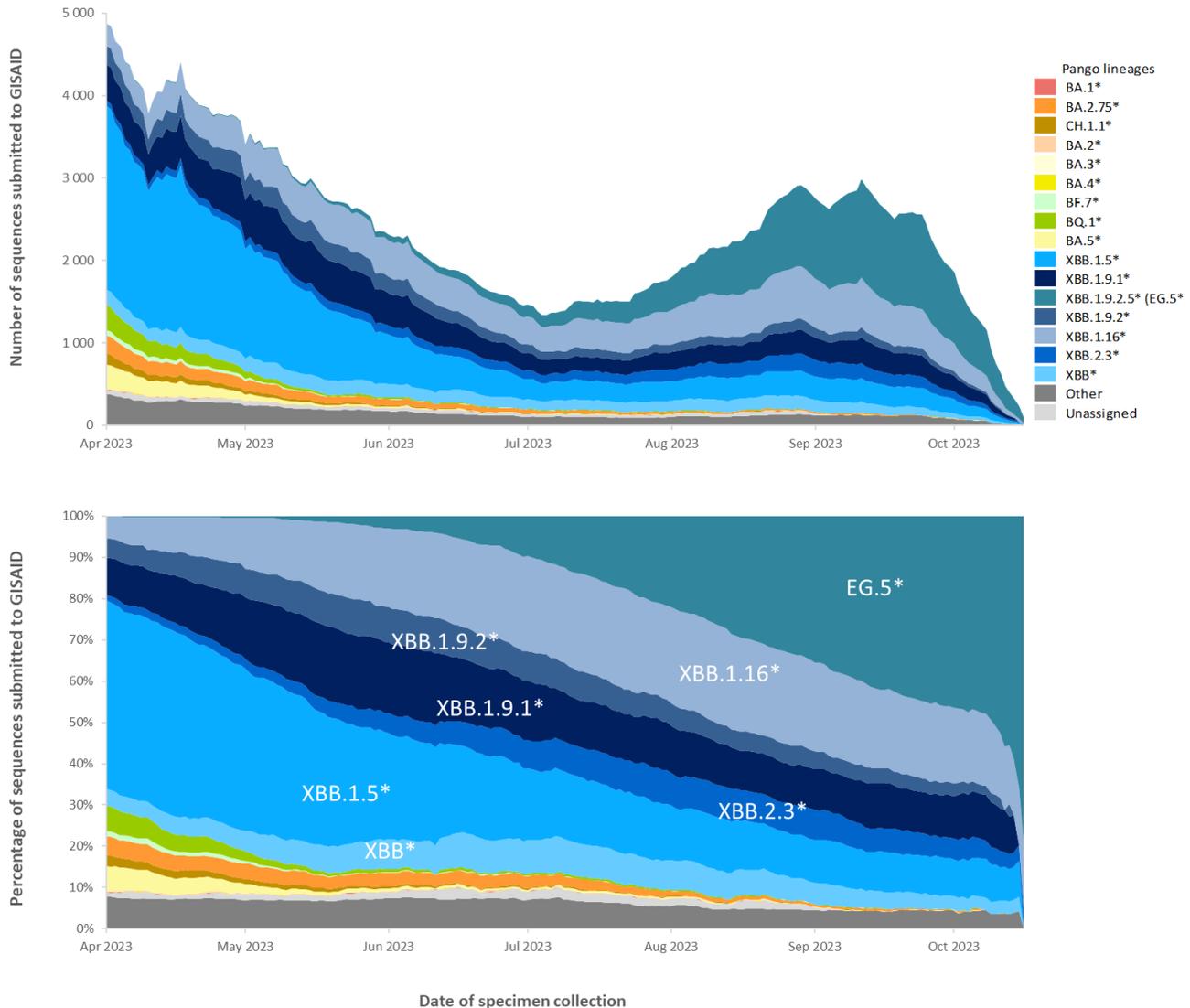


Figure 10. Panel A shows the number, and **Panel B** the percentage, of all circulating variants since March 2023. Omicron sister-lineages and additional Omicron VOC descendent lineages under further monitoring are shown. *BA.1**, *BA.2**, *BA.3**, *BA.4** and *BA.5** (* indicates inclusion of descendent 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](#)

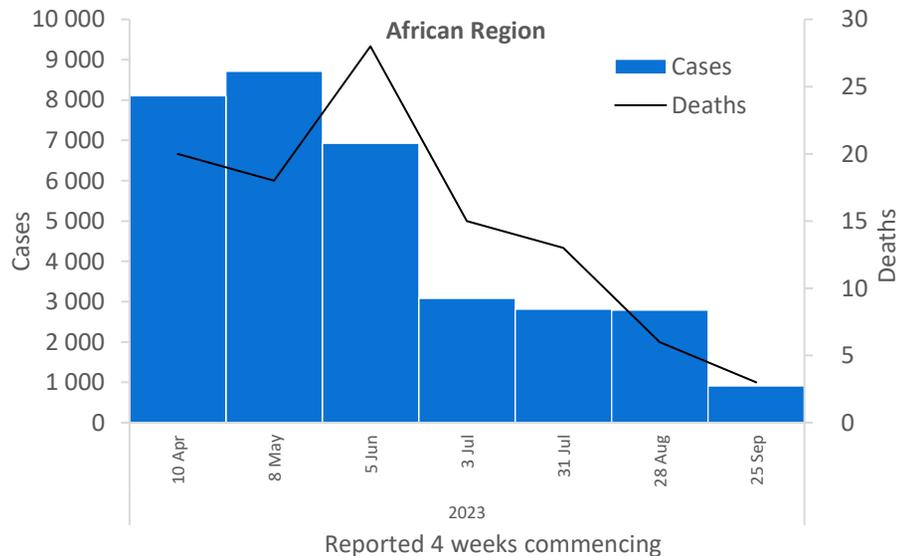
WHO regional overviews

Data for 25 September to 22 October 2023

African Region

The African Region reported over 900 new cases, a 67% 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 Eswatini (98 vs nine new cases; +989%), Zimbabwe (68 vs 22 new cases; +209%), and Kenya (59 vs 26 new cases; +127%). The highest numbers of new cases were reported from the Democratic Republic of the Congo (290 new cases; <1 new case per 100 000; -19%), Mauritius (153 new cases; 12.0 new cases per 100 000; -29%), and Eswatini (98 new cases; 8.4 new cases per 100 000; +989%).

The number of new 28-day deaths in the Region decreased by 50% as compared to the previous 28-day period, with three new deaths reported from the Region from Zimbabwe (two new deaths; <1 new death per 100 000; +100%), and Cabo Verde (one new death; <1 new death per 100 000; no deaths reported the previous 28-day period).

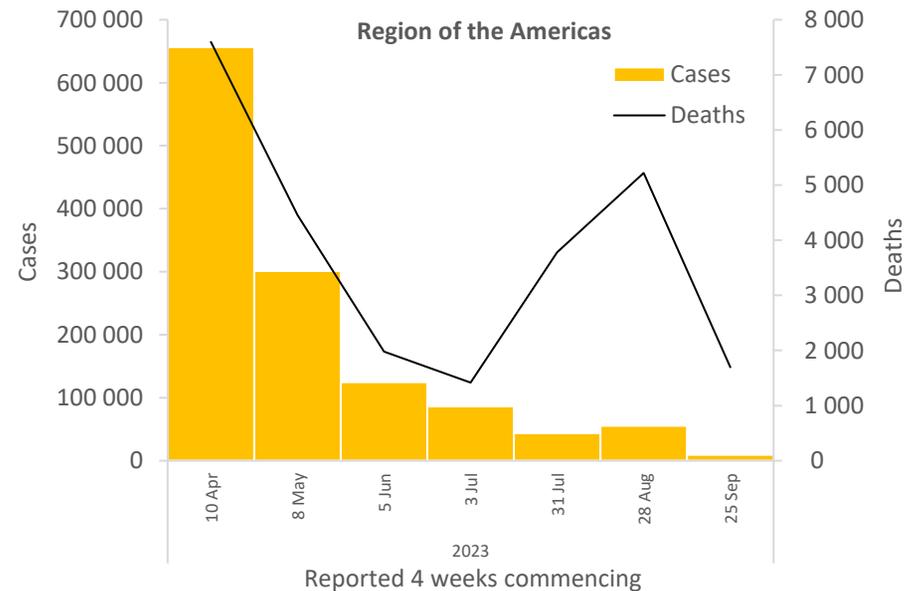


Updates from the [African Region](#)

Region of the Americas

The Region of the Americas reported over 9400 new cases, an 83% decrease as compared to the previous 28-day period. Two (4%) of the 56 countries for which data are available reported increases in new cases of 20% or greater: Haiti (63 vs 27 new cases; +133%), and Chile (42 vs 19 new cases; +121%). The highest numbers of new cases were reported from Canada (4034 new cases; 10.7 new cases per 100 000; -59%), Mexico (2493 new cases; 1.9 new cases per 100 000; -92%), and Colombia (950 new cases; 1.9 new cases per 100 000; -51%).

The number of new 28-day deaths in the Region decreased by 68% as compared to the previous 28-day period, with 1694 new deaths reported. The highest numbers of new deaths were reported from the United States of America (1592 new deaths; <1 new death per 100 000; -67%), Mexico (86 new deaths; <1 new death per 100 000; -45%), and Canada (nine new deaths; <1 new death per 100 000; -91%).

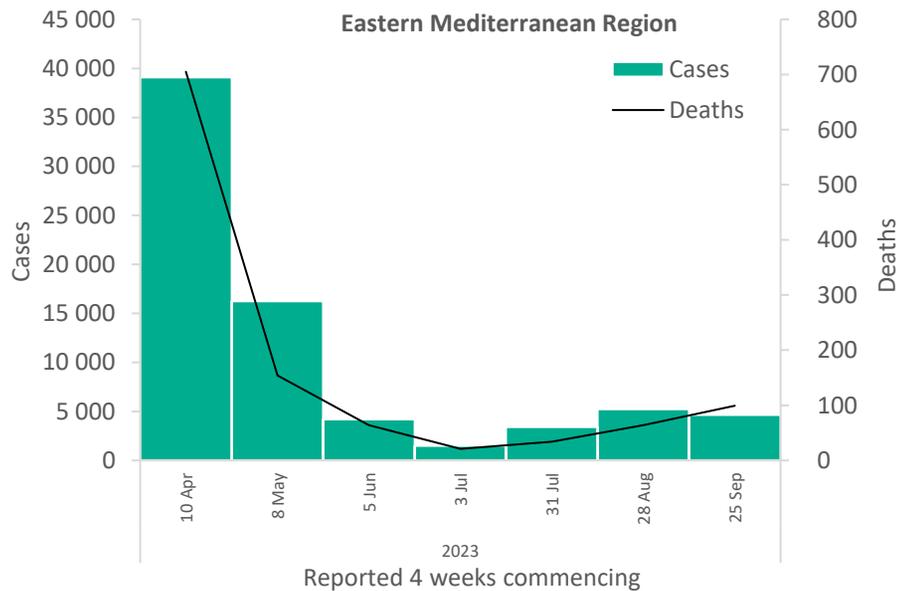


Updates from the [Region of the Americas](#)

Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 4600 new cases, an 11% 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 the Islamic Republic of Iran (3190 new cases; 3.8 new cases per 100 000; +4%), Afghanistan (844 new cases; 2.2 new cases per 100 000; -6%), and Morocco (447 new cases; 1.2 new cases per 100 000; -59%).

The number of new 28-day deaths in the Region increased by 55% as compared to the previous 28-day period, with 99 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (94 new deaths; <1 new death per 100 000; +59%), and Afghanistan (five new deaths; <1 new death per 100 000; similar to the previous 28-day period).

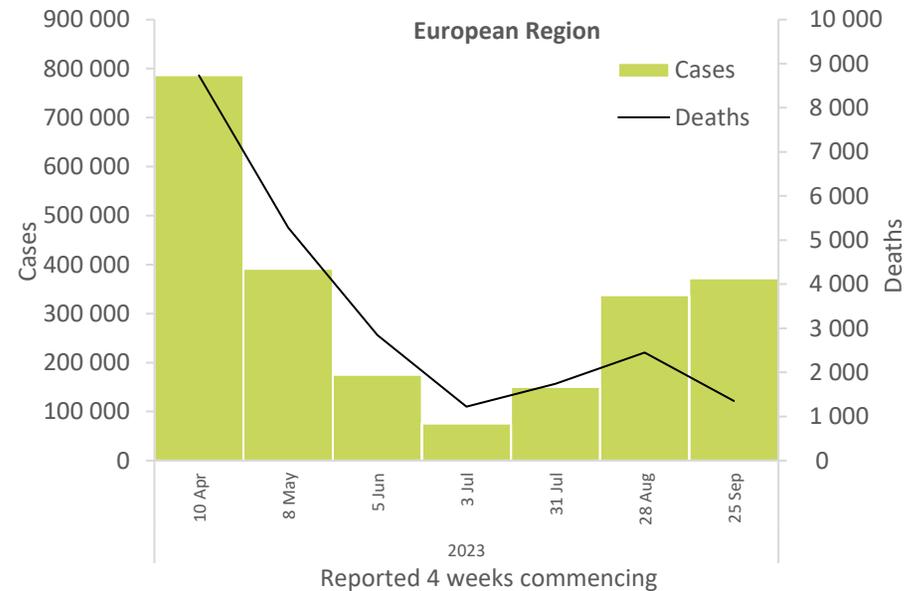


Updates from the [Eastern Mediterranean Region](#)

European Region

The European Region reported over 371 000 new cases, a 10% increase as compared to the previous 28-day period. Fifteen (25%) 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 Serbia (14 619 vs 3769 new cases; +288%), the Russian Federation (83 765 vs 28 441 new cases; +195%), and Armenia (684 vs 293 new cases; +133%). The highest numbers of new cases were reported from Italy (141 255 new cases; 236.8 new cases per 100 000; +24%), the Russian Federation (83 765 new cases; 57.4 new cases per 100 000; +195%), and the United Kingdom (53 280 new cases; 78.5 new cases per 100 000; +6%).

The number of new 28-day deaths in the Region decreased by 45% as compared to the previous 28-day period, with 1352 new deaths reported. The highest numbers of new deaths were reported from Italy (560 new deaths; <1 new death per 100 000; +36%), the Russian Federation (172 new deaths; <1 new death per 100 000; +237%), and Sweden (138 new deaths; 1.3 new deaths per 100 000; +28%).

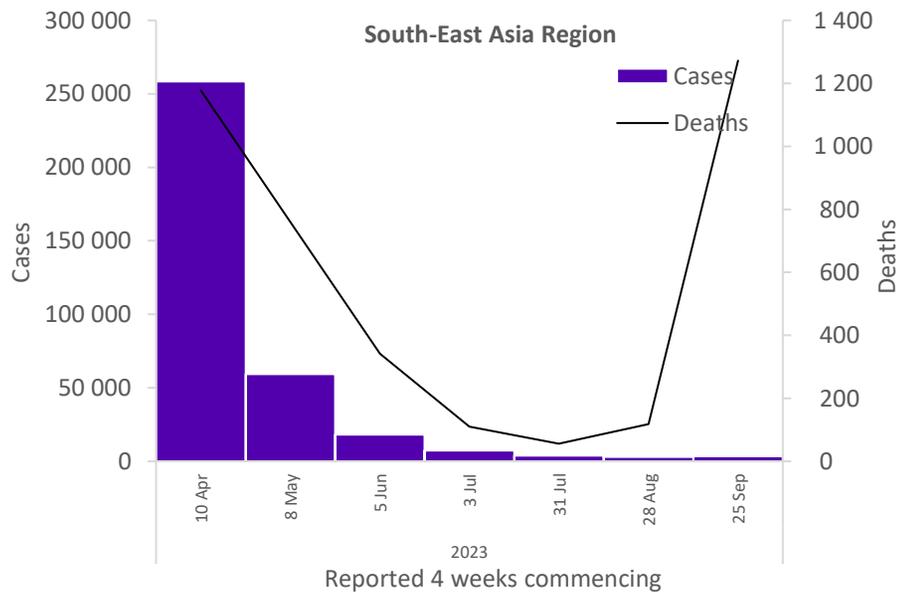


Updates from the [European Region](#)

South-East Asia Region

The South-East Asia Region reported over 3400 new cases, a 14% increase 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: India (2527 vs 1562 new cases; +62%). The highest numbers of new cases were reported from India (2527 new cases; <1 new case per 100 000; +62%), Thailand (636 new cases; <1 new case per 100 000; -27%), and Bangladesh (221 new cases; <1 new case per 100 000; -43%).

The number of new 28-day deaths in the Region increased by 978% as compared to the previous 28-day period, with 1272 new deaths reported. The highest numbers of new deaths were reported from India (1260 new deaths; <1 new death per 100 000; +1123%) – primarily due to retrospective adjustment, and Thailand (12 new deaths; <1 new death per 100 000; -14%).

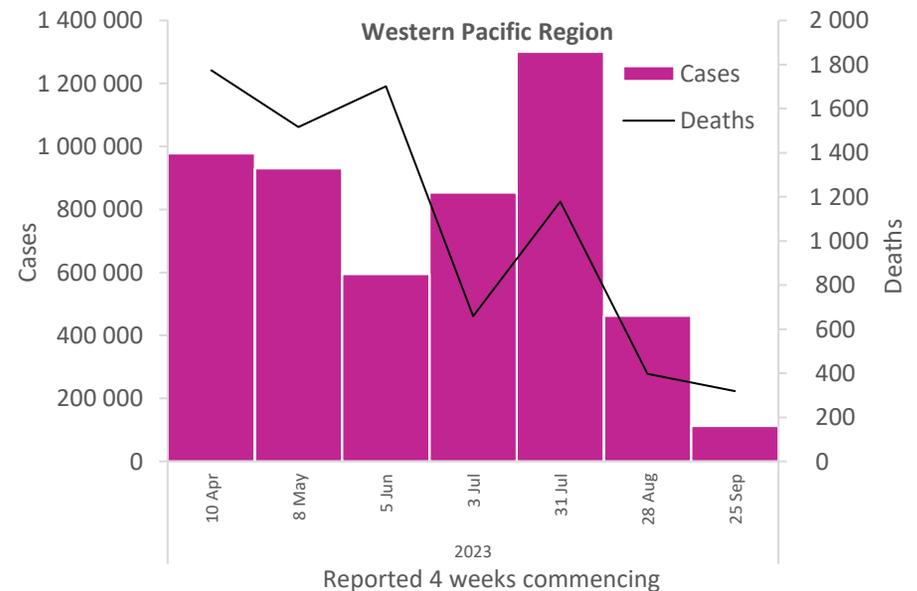


Updates from the [South-East Asia Region](#)

Western Pacific Region

The Western Pacific Region reported over 111 000 new cases, a 76% decrease as compared to the previous 28-day period. Seven (20%) 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 Tonga (21 vs four new cases; +425%), Singapore (61 230 vs 24 594 new cases; +149%), and French Polynesia (17 vs nine new cases; +89%). The highest numbers of new cases were reported from Singapore (61 230 new cases; 1046.6 new cases per 100 000; +149%), Australia (20 186 new cases; 79.2 new cases per 100 000; -3%), and New Zealand (10 911 new cases; 226.3 new cases per 100 000; similar to the previous 28-day period).

The number of new 28-day deaths in the Region decreased by 20% as compared to the previous 28-day period, with 319 new deaths reported. The highest numbers of new deaths were reported from Australia (120 new deaths; <1 new death per 100 000; -22%), New Zealand (64 new deaths; 1.3 new deaths per 100 000; +39%), and China (50 new deaths; <1 new death per 100 000; +16%).



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.