

COVID-19 Weekly Epidemiological Update

Edition 122 published 14 December 2022

In this edition:

- Global overview
- SARS-CoV-2 variants of concern and Omicron subvariants under monitoring
- WHO regional overviews
- Hospitalizations and ICU admissions

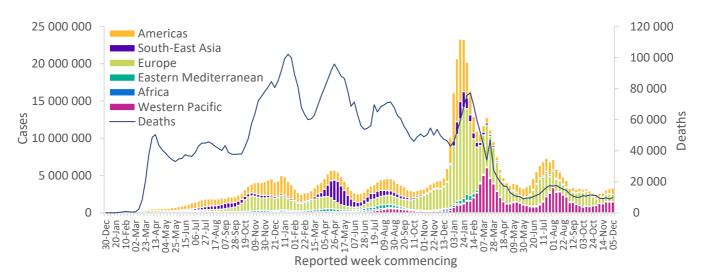
Global overview

Data as of 11 December 2022

Globally, the number of new weekly cases remained stable (+2%) during the week of 5 to 11 December 2022 as compared to the previous week, with over 3.3 million new cases reported (Figure 1, Table 1). The number of new weekly deaths increased by over 10% as compared to the previous week, with over 9700 new fatalities reported. As of 11 December 2022, over 645 million confirmed cases and over 6.6 million deaths have been reported globally.

At the regional level, the number of newly reported weekly cases decreased or remained stable across five of the six WHO regions: the African Region (-73%), the South-East Asia Region (-33%), the European Region (-11%), the Eastern Mediterranean Region (-2%), and the Western Pacific Region (+3%); while case numbers increased in one WHO region: the Region of the Americas (+27%). The number of newly reported weekly deaths increased across three WHO regions: the African Region (+975%; partly due to batch reporting from South Africa), the Region of the Americas (+37%), and the Eastern Mediterranean Region (+81%); while death numbers decreased in three WHO regions: the European Region (-17%), the South-East Asia Region (-10%), and the Western Pacific Region (+5%).

Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 11 December 2022**



^{**}See Annex 1: Data, table, and figure notes

At the country level, the highest numbers of new weekly cases were reported from Japan (849 371 new cases; +13%), the United States of America (448 634 new cases; +50%), the Republic of Korea (420 392 new cases; +13%), France (366 699 new cases; -5%), and Brazil (194 170 new cases; +3%). The highest numbers of new weekly deaths were reported from the United States of America (2934 new deaths; +62%), Japan (1358 new deaths; +28%), Brazil (603 new deaths; -5%), France (478 new deaths; +4%), and Italy (475 new deaths; -29%).

Current trends in reported COVID-19 cases should be interpreted with caution as several countries have been progressively changing COVID-19 testing strategies, resulting in lower numbers of tests performed and consequently lower numbers of cases detected. COVID-19 prevalence surveys conducted in a number of countries have found that the number of reported COVID-19 cases is an underestimate of the actual number of infections in the population.^{1–4} Additionally, data from previous weeks are continuously updated to retrospectively incorporate changes in reported COVID-19 cases and deaths made by countries.

Table 1. Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 11 December 2022**

WHO Region	New cases in last 7 days (%)	Change in new cases in last 7 days *	Cumulative cases (%)	New deaths in last 7 days (%)	Change in new deaths in last 7 days *	Cumulative deaths (%)
Western Pacific	1 493 218 (45%)	3%	101 362 984 (16%)	2283 (23%)	5%	287 229 (4%)
Europe	962 317 (29%)	-11%	267 030 169 (41%)	2586 (26%)	-17%	2 142 666 (32%)
Americas	836 681 (25%)	27%	183 376 268 (28%)	4347 (44%)	37%	2 877 025 (43%)
South-East Asia	24 400 (1%)	-33%	60 703 589 (9%)	388 (4%)	-10%	802 495 (12%)
Eastern Mediterranean	7268 (<1%)	-2%	23 206 433 (4%)	49 (1%)	81%	348 972 (5%)
Africa***	2826 (<1%)	-73%	9 420 467 (1%)	129 (1%)	975%	175 063 (3%)
Global	3 326 710 (100%)	2%	645 100 674 (100%)	9782 (100%)	10%	6 633 463 (100%)

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

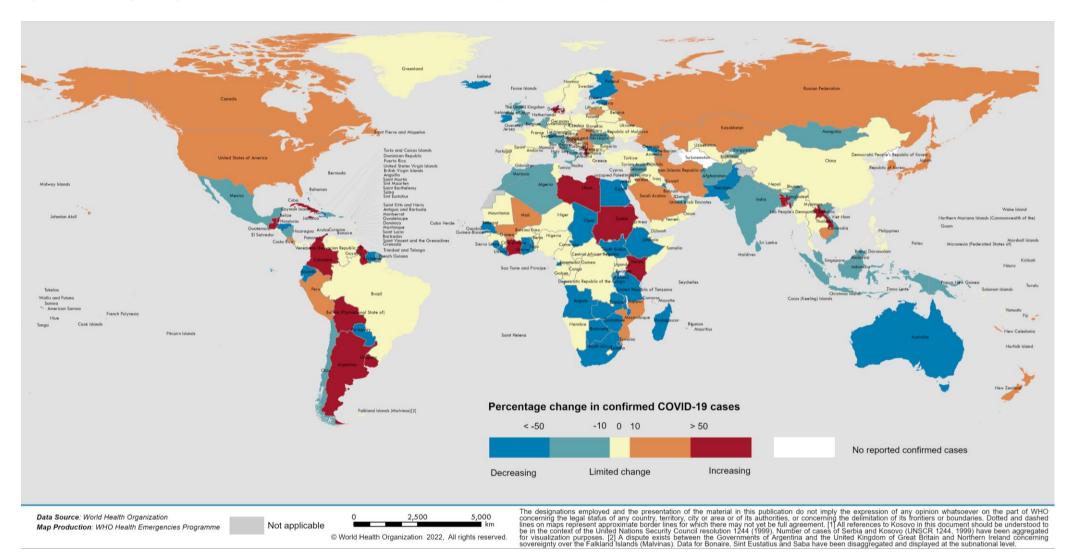
The latest data and other updates on COVID-19, please see:

- WHO COVID-19 Dashboard
- WHO COVID-19 Monthly Operational Update and previous editions of the Weekly Epidemiological Update
- WHO COVID-19 detailed surveillance data dashboard
- WHO COVID-19 policy briefs

^{**}See Annex 1: Data, table, and figure notes

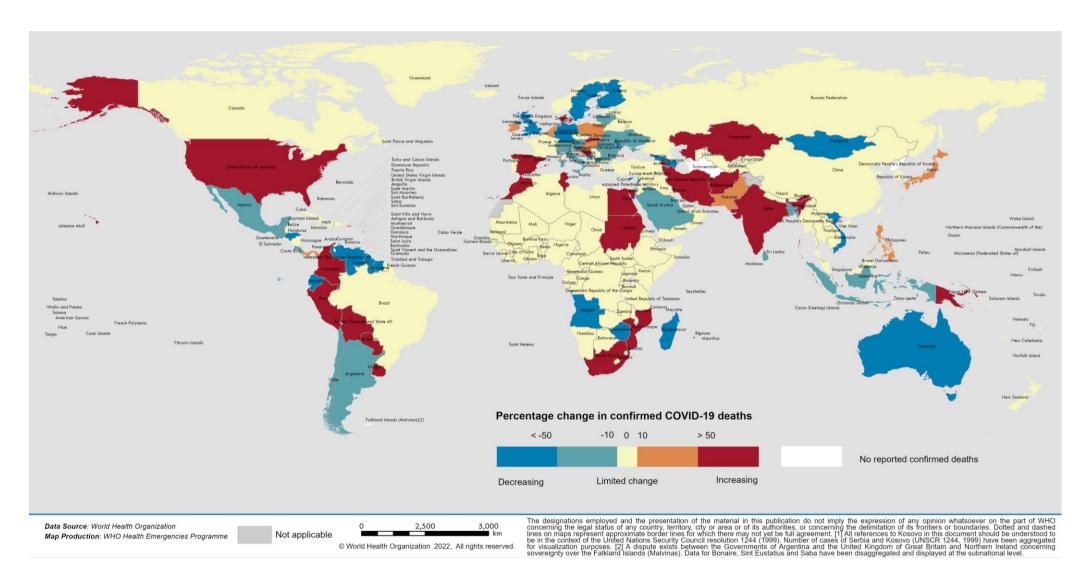
^{***} The increase in the number of deaths in the African Region is partly due to batch reporting from South Africa.

Figure 2. Percentage change in confirmed COVID-19 cases over the last seven days relative to the previous seven days, 5 to 11 December 2022**



^{**}See Annex 1: Data, table, and figure notes

Figure 3. Percentage change in confirmed COVID-19 deaths over the last seven days relative to the previous seven days, 5 to 11 December 2022**



^{**}See Annex 1: Data, table, and figure notes

SARS-CoV-2 variants of concern and Omicron subvariants under monitoring

Geographic spread and prevalence

Globally, from 24 October to 20 November 2022,ⁱ 204 995 SARS-CoV-2 sequences were shared through GISAID. Among these, 204 042 sequences were the Omicron variant of concern (VOC), representing 99.5% of sequences reported globally.

BA.5 descendent lineages remain predominant, with a prevalence of 73.7% as of epidemiological week 46 (14 to 20 November 2022), followed by BA.2 descendent lineages, with a prevalence of 10.4%. BA.4 descendent lineages have declined in prevalence, accounting for 2.0% of sequences within the same reporting period. XBB and descendent lineages account for 3.9%, a trend that is rising. Unassigned sequences (presumed to be Omicron subvariants) account for 9.9% of sequences submitted to GISAID in week 46.

The evolution of Omicron descendent variants continues to show genetic diversification and has resulted in more than 540 descendent lineages, and more than 61 recombinants. However, only some of these descendent lineages continue to increase in prevalence, while others remain at only a few sequence detections. Among the more relevant variant lineages, specific substitutions are accumulating, a genetic pattern referred to as convergent evolution.

Five Omicron subvariants are under monitoring due to relevant genetic variation, rise in prevalence, and/or an observed and continued impact on case incidence in more than one country.⁵ As of week 46, these five pooled Omicron subvariants under monitoring have replaced previous BA.5 descendent lineages and account for 63.5% of prevalence at a global level. The replacement pattern of these subvariants points to a potential role of specific mutations in growth advantage, probably by immune escape properties (Figure 5).

- BA.2.75* carries the substitutions S:D339H, S:G446S, S:N460K and the S:Q493R reversion. Two notable BA.2.75 variants with additional mutations of interest within the Spike protein are BA.2.75.2 (BA.2.75 + S:R346T, S:F486S, and S:D1199) and CH.1.1 (BA.2.75 + S:R346T, S:K444T, S:L452R, and S:F486S). BA.2.75 was first identified on 31 December 2021 and began to spread in a few countries in the South-East Asia Region. Since its emergence, BA.2.75 has been reported from 85 countries. The five countries reporting the highest prevalence of BA.2.75 are Thailand (53.8%), Australia (25.1%), Malaysia (22.5%), China (18.8%), and New Zealand (16.3%). BA.2.75* became rapidly dominant in India and in Bangladesh; but was then replaced by XBB* without an indication of a significant rise in reported case incidence. From currently available evidence, BA.2.75* has not shown a significantly different phenotype as compared to other Omicron variants in countries where it has become widespread.
- **BA.5** with one or several of the **5 mutations** S:R346X, S:K444X, S:V445X, S:N450X, and/or S:N460X is monitored as these mutations have been associated with or are suspected to have an important functional role to the virus (e.g., resistance to neutralization, increased transmissibility). This class of variants has risen rapidly and is detected in 119 countries, accounting for a global prevalence of 15.0%. The five countries reporting the highest prevalence of BA.5 are South Africa (75.4%), Costa Rica (70.9%), Peru (53.5%), Mexico (49.8%), and Brazil (42.4%).
- **BQ.1*** is a BA.5 descendent lineage with additional substitutions S:K444T and S:N460K. The BQ.1 descendent lineage with the highest prevalence is BQ.1.1, and carries the additional mutation S:R346T. BQ.1* is one of the fastest growing variants and has spread to 90 countries, with a prevalence of 33.9% as of week 46. The five countries reporting the highest prevalence of BQ.1* variants are Ecuador (65.5%), Portugal (56.7%), Spain (54.1%), France (48.7%), and Colombia (46.8%).

This reporting period was used to account for an average turnaround time of 21 days from sample collection to sequence submission to GISAID.

^{*} Includes all descendent lineages.

- XBB* is a recombinant of the BA.2.10.1 and BA.2.75 sublineages, first reported on 13 August 2022. Relevant mutations in this recombinant are S:G339H, S:R346T, S:L368I, S:V445P, S:G446S, S:N460K, S:F486S and S:F490S. As of week 46, XBB* has a global prevalence of 3.8% and it has been detected in 70 countries. The five countries with the highest prevalence of XBB* are India (62.5%), the Dominican Republic (48.2%), Singapore (47.3%), Malaysia (40.9%), and Indonesia (29.3%).
- BA.2.30.2 carries the mutations S:K444R, S:N450D, S:L452M, S:N460K and S:E484R. As of week 46, BA.2.30.2 has a global prevalence of 0.3%. Countries with the highest prevalence are Iceland (4%), Slovenia (2%), Australia (1.1), Colombia (0.9%) and the Republic of Korea (0.6%).

As presented above, Omicron subvariants under monitoring share several relevant mutations but show different patterns of geographic spread. **BA.2.75** and **XBB** emerged and increased in prevalence mainly in countries in the South-East Asia and Western Pacific regions. Both variants are rising slowly in prevalence, but current data do not suggest a consistent association with an increase in new infections. Co-circulation of BA.2.75 and XBB occurs in multiple countries. **BQ.1** and **BA.5** + 5 mutations have emerged, risen in prevalence, and spread to many countries rapidly.

Whether the increased immune escape capacity of this new series of Omicron descendent variants is sufficient to drive new infection waves appears to depend on the regional immune landscape, the size and timing of previous Omicron waves, and the COVID-19 vaccination coverage. While further studies are needed, the current data do not suggest that there are substantial differences in disease severity for BA.2.75, BA.5 + 5 mutations, BQ.1, and XBB.

BA.2.75* BA.5 + 5 mutations** * indicates pooled descendent lineages
** S:R346X, S:K444X, S:V445X, S:N450X, S:N460X The proportion of VUM among total sequences from 24 October to 20 November 20225 0.51 - 1.00 0.21 - 0.50 0.11 - 0.20 >0.00 - 0.10 VUM sequences reported, too few to estimate proportions BQ.17 XBB* (<100 sequences) No VUM sequences shared Not applicable Prevalence calculated as a proportion of VUM sequences uploaded to GISAID with sample collection from 24 Octobe to 20 November 2022, excluding low coverag sequences, limited to countries with ≥ 100 total sequences in the san period. Countries assigned by location of sample

Figure 4. Presence and proportion of selected Omicron subvariants under monitoring, from 24 October to 20 November 2022

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 Avian Influenza Data Map Production: WHO Health Emergencies Programme Map Date: 12 December 2022



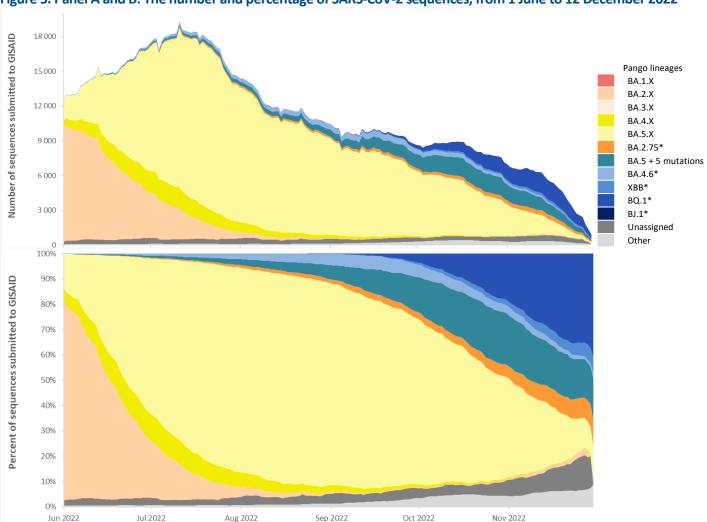


Figure 5. Panel A and B: The number and percentage of SARS-CoV-2 sequences, from 1 June to 12 December 2022

Figure 5 Panel A shows the number, and **Panel B** the percentage, of all circulating variants since June 2022. Omicron sister-lineages and additional Omicron VOC descendent lineages under further monitoring are shown. *BA.1.X, BA.2.X, BA.3.X, BA.4.X* and *BA.5.X* include all BA.1, BA.2, BA.3, BA.4 and BA.5 pooled descendent lineages, except the Omicron subvariants under monitoring 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 June to 12 December 2022.

Date of specimen collection

Table 2. Relative proportions of SARS-CoV-2 sequences from 24 October to 20 November 2022, by specimen collection date

Lineage	Countries	Sequences	2022-43	2022-44	2022-45	2022-46
BA.1*	186	2 209 253	0.03	0.02	0.02	0.01
BA.2.3.20*	48	1190	0.29	0.36	0.30	0.30
BA.2.75*	85	34 728	4.60	5.58	6.57	7.21
BA.2*	171	2 036 989	0.54	0.97	1.09	1.44
BA.3*	32	799				0.00
BA.4.6*	94	50 301	3.23	3.00	2.43	1.77
BA.4*	131	117 870	0.49	0.35	0.30	0.25
BA.5 + 5 mutations	119	123 378	20.61	19.69	17.82	16.87
BQ.1*	90	72 044	17.93	22.35	27.76	33.89
BA.5*	150	1 278 809	40.81	33.49	26.80	18.26
XBB*	70	9988	1.80	2.64	3.65	3.77
Unassigned	89	124 702	5.34	7.00	7.50	9.93
Other	205	6 661 808	4.33	4.55	5.78	6.29

Table 2 shows the number of countries reporting the highlighted lineages, the total number of sequences reported and the prevalence of the lineages for the last four weeks. *BA.1.X, BA.2.X, BA.3.X, BA.4.X* and *BA.5.X* include all BA.1, BA.2, BA.3, BA.4 and BA.5 pooled descendent lineages. The *Unassigned* category includes lineages pending for a PANGO lineage name, whereas the *Other* category includes lineages other than those listed in the legend. Data source: sequences and metadata from GISAID, retrieved on 12 December 2022. Proportions are shown as percent.

Vaccine effectiveness (VE) of primary series and booster vaccination against the Omicron variant of concern

Forest plots displaying the effectiveness of COVID-19 vaccines against Omicron are available on <u>View-hub.org</u> and updated regularly (last updated 8 December 2022). All data are collected as part of an ongoing systematic review of COVID-19 vaccine effectiveness studies (methods described <u>here</u>). The following plots are available:

- Primary series and booster dose vaccine effectiveness for all vaccines with available data;
- Vaccine effectiveness for various sub-populations of interest;
- Absolute and relative vaccine effectiveness of a second booster dose (for more information on interpreting relative VE, see the special focus on relative vaccine effectiveness from the <u>June 29th Weekly Epidemiological</u> <u>Update</u>);
- Duration of vaccine effectiveness over time for vaccines with available data.

Neutralizing antibody studies can provide early insights into vaccine performance against new and emerging variants of concern and their subvariants. For more information about the capacity of COVID-19 vaccines to neutralize various Omicron subvariants, please see a <u>recent systematic review</u> of post-vaccination neutralization responses to Omicron BA.1, BA.2, BA.3, and BA.4/BA.5. In addition, results of a living systematic review of neutralization studies are updated regularly on <u>VIEW-hub.org</u> (last updated 1 December 2022).

Additional resources

- Tracking SARS-CoV-2 Variants
- TAG-VE statement on Omicron sublineages BQ.1 and XBB
- COVID-19 new variants: Knowledge gaps and research
- Genomic sequencing of SARS-CoV-2: a guide to implementation for maximum impact on public health
- VIEW-hub: repository for the most relevant and recent vaccine data

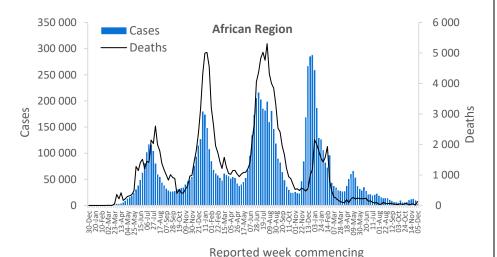
WHO regional overviews:

Epidemiological week 5 to 11 December 2022

African Region

The African Region reported over 2800 new cases, a 73% decrease as compared to the previous week. Four (8%) 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 Comoros (nine vs three new cases; +200%), Côte d'Ivoire (four vs two new cases; +100%), and Mali (three vs two new cases; +50%). The highest numbers of new cases were reported from Réunion (1366 new cases; 152.6 new cases per 100 000; +12%), Mauritius (447 new cases; 35.1 new cases per 100 000; -89%), and Kenya (288 new cases; <1 new case per 100 000; +64%).

The number of new weekly deaths in the region increased by 975% as compared to the previous week (partly due to batch reporting from South Africa), with 129 new deaths reported. The highest numbers of new deaths were reported from South Africa (122 new deaths; <1 new death per 100 000; no deaths reported the previous week), Mozambique (three new deaths; <1 new death per 100 000; no deaths reported the previous week), and Réunion (two new deaths; <1 new death per 100 000; +100%).

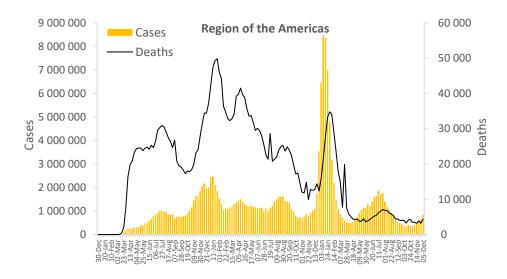


Updates from the African Region

Region of the Americas

The Region of the Americas reported over 836 000 new cases, a 27% increase as compared to the previous week. Fourteen (25%) 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 Bolivia (Plurinational State of) (5786 vs 1038 new cases; +457%), Bonaire (37 vs 11 new cases; +236%), and Argentina (27 119 vs 12 609 new cases; +115%). The highest numbers of new cases were reported from the United States of America (448 634 new cases; 135.5 new cases per 100 000; +50%), Brazil (194 170 new cases; 91.3 new cases per 100 000; +3%), and Peru (71 516 new cases; 216.9 new cases per 100 000; +15%).

The number of new weekly deaths in the region increased by 37% as compared to the previous week, with 4347 new deaths reported. The highest numbers of new deaths were reported from the United States of America (2934 new deaths; <1 new death per 100 000; +62%), Brazil (603 new deaths; <1 new death per 100 000; -5%), and Canada (242 new deaths; <1 new death per 100 000; -7%).



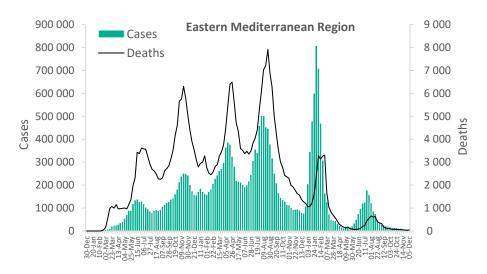
Reported week commencing

Updates from the Region of the Americas

Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 7200 new cases, a 2% decrease as compared to the previous week. Four (18%) 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 Libya (16 vs six new cases; +167%), Saudi Arabia (435 vs 316 new cases; +38%), and Lebanon (430 vs 329 new cases; +31%). The highest numbers of new cases were reported from Qatar (3722 new cases; 129.2 new cases per 100 000; +39%), Morocco (823 new cases; 2.2 new cases per 100 000; -18%), and the United Arab Emirates (719 new cases; 7.3 new cases per 100 000; -21%).

The number of new weekly deaths in the region increased by 81% as compared to the previous week, with 49 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (21 new deaths; <1 new death per 100 000; +425%), Saudi Arabia (11 new deaths; <1 new death per 100 000; -21%), and Afghanistan (five new deaths; <1 new death per 100 000; +400%).



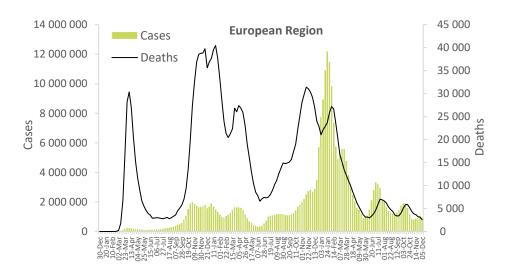
Reported week commencing

Updates from the Eastern Mediterranean Region

European Region

The European Region reported over 962 000 new cases, an 11% decrease as compared to the previous week. Nine (15%) 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 Albania (130 vs 69 new cases; +88%), Montenegro (267 vs 165 new cases; +62%), and Denmark (9918 vs 6266 new cases; +58%). The highest numbers of new cases were reported from France (366 699 new cases; 563.8 new cases per 100 000; -5%), Germany (179 336 new cases; 215.6 new cases per 100 000; -2%), and Italy (153 948 new cases; 258.1 new cases per 100 000; -32%).

The number of new weekly deaths in the region decreased by 17% as compared to the previous week, with 2586 new deaths reported. The highest numbers of new deaths were reported from France (478 new deaths; <1 new death per 100 000; +4%), Italy (475 new deaths; <1 new death per 100 000; -29%), and the Russian Federation (380 new deaths; <1 new death per 100 000; -3%).



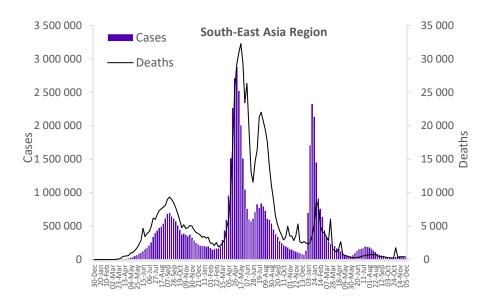
Reported week commencing

Updates from the **European Region**

South-East Asia Region

The South-East Asia Region reported over 24 000 new cases, a 33% decrease as compared to the previous week. Two (20%) of the 10 countries for which data are available reported increases in new cases of 20% or greater, with the higher proportional increases observed in Bangladesh (169 vs 110 new cases; +54%) and the Maldives (19 vs 14 new cases; +36%). The highest numbers of new cases were reported from Indonesia (18 587 new cases; 6.8 new cases per 100 000; -38%), Thailand (3961 new cases; 5.7 new cases per 100 000; -8%), and India (1430 new cases; <1 new case per 100 000; -22%).

The number of new weekly deaths in the region decreased by 10% as compared to the previous week, with 388 new deaths reported. The highest numbers of new deaths were reported from Indonesia (246 new deaths; <1 new death per 100 000; -19%), Thailand (107 new deaths; <1 new death per 100 000; +2%), and India (30 new deaths; <1 new death per 100 000; +88%).



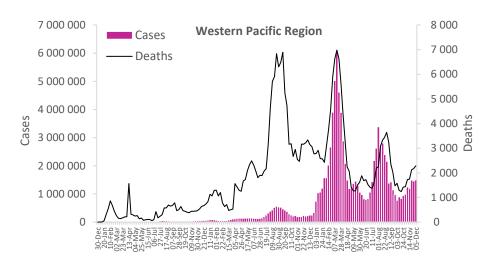
Reported week commencing

Updates from the South-East Asia Region

Western Pacific Region

The Western Pacific Region reported over 1.4 million new cases, a 3% increase as compared to the previous week. Three (9%) of the 34 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in the Lao People's Democratic Republic (335 vs 218 new cases; +54%), Cambodia (107 vs 72 new cases; +49%), and Fiji (102 vs 76 new cases; +34%). The highest numbers of new cases were reported from Japan (849 371 new cases; 671.6 new cases per 100 000; +13%), the Republic of Korea (420 392 new cases; 820 new cases per 100 000; +13%), and China (149 674 new cases; 10.2 new cases per 100 000; +2%).

The number of new weekly deaths in the region increased by 5% as compared to the previous week, with 2283 new deaths reported. The highest numbers of new deaths were reported from Japan (1358 new deaths; 1.1 new deaths per 100 000; +28%), the Republic of Korea (340 new deaths; <1 new death per 100 000; -6%), and China (337 new deaths; <1 new death per 100 000; -6%).



Reported week commencing

Updates from the Western Pacific Region

Hospitalizations and ICU admissions

At the global level, during epidemiological week 48 (28 November to 4 December 2022), a total of 33 544 new hospitalizations and 1112 new intensive care unit (ICU) admissions were reported. The presented hospitalization data are preliminary and might change as new data become available. Furthermore, hospitalization data are subject to reporting delays. These data are also likely to include both hospitalizations with incidental cases of SARS-CoV-2 infection and those due to COVID-19 disease.

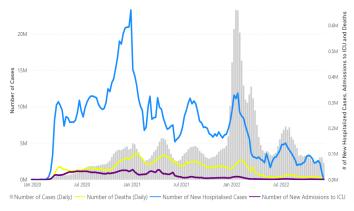
Globally, in week 48, 32 (14%) countries reported data to WHO on new hospitalizations. The region with the highest proportion of countries reporting data on new hospitalizations was the European Region (16 countries; 26%), followed by the Eastern Mediterranean Region (four countries; 18%), the Region of the Americas (seven countries; 13%), the South-East Asia Region (one country; 9%), the African Region (three countries; 6%), and the Western Pacific Region (one country; 3%).

Across all six WHO regions, in week 48, a total of 18 (8%) countries reported data to WHO on new ICU admissions. The region with the highest proportion of countries reporting data on new ICU admissions was the Eastern Mediterranean Region (four countries; 18%), the European Region (nine countries; 15%), the Western Pacific region (two countries; 6%), and the Region of the Americas (three countries; 5%). So far, no country in the South-East Asia Region and the African Region has reported data on new ICU admissions during week 48.

Among the 18 countries that reported more than 50 new hospitalizations, 11 countries showed an increasing trend compared to the previous week: Argentina (335 vs 121 new hospitalizations; +177%), Qatar (131 vs 71 new hospitalizations; +85%), Mexico (360 vs 261 new hospitalizations; +38%), Latvia (260 vs 196 new hospitalizations; +33%), France (7264 vs 5546 new hospitalizations; +31%), Belgium (528 vs 416 new hospitalizations; +27%), Uzbekistan (422 vs 346 new hospitalizations; +22%), Estonia (190 vs 161 new hospitalizations; +18%), Bangladesh (105 vs 92 new hospitalizations; +14%), Slovakia (151 vs 141 new hospitalizations; +7%) and Ukraine (2556 vs 2478 new hospitalizations; +3%). Argentina, Mexico, Uzbekistan, and France have reported increases in the number of new hospital admissions for four consecutive weeks.

Among the nine countries that reported more than 10 new ICU admissions, six countries showed an increasing trend compared to the previous week: Lithuania (18 vs nine new ICU admissions; +100%), Argentina (12 vs eight new ICD admissions; +50%), France (657 vs 529 new ICU admissions; +24%), Greece (38 vs 31 new ICU admissions; +23%), Ukraine (131 vs 119 new ICU admissions; +10%), and Malaysia (96 vs 95 new ICU admissions; +1%). France and Malaysia reported increases in the number of ICU admissions for four and five consecutive weeks, respectively.

Figure 6. COVID-19 cases, deaths, hospital, and ICU admissions reported weekly to WHO, as of 4 December 2022



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

Source: WHO Detailed Surveillance Dashboard

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 <u>case definitions</u> and <u>surveillance guidance</u>. 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 except, the names of proprietary products are distinguished by initial capital letters.

^[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.

[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).

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.

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 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. The majority of sequences submitted to GISAID are from countries with high sequencing capacity, mostly high-income countries.⁶

References

- 1. Cohen C, Kleynhans J, von Gottberg A, et al. SARS-CoV-2 incidence, transmission, and reinfection in a rural and an urban setting: results of the PHIRST-C cohort study, South Africa, 2020–21. *The Lancet Infectious Diseases*. 2022;22(6):821-834. doi:10.1016/S1473-3099(22)00069-X
- 2. Coronavirus (COVID-19) Infection Survey, UK: 4 November 2022 Office for National Statistics. Accessed November 21, 2022. https://www.ons.gov.uk/releases/coronaviruscovid19infectionsurveyuk4november2022
- 3. Parikh S, O'Laughlin K, Ehrlich HY, et al. Point Prevalence Testing of Residents for SARS-CoV-2 in a Subset of Connecticut Nursing Homes. *JAMA*. 2020;324(11):1101-1103. doi:10.1001/jama.2020.14984
- 4. Real-time dashboard. Coronavirus disease 2019. Accessed November 15, 2022. https://covid19.sph.hku.hk/dashboard
- 5. Tracking SARS-CoV-2 variants. Accessed December 13, 2022. https://www.who.int/activities/tracking-SARS-CoV-2-variants
- 6. 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