

COVID-19 Weekly Epidemiological Update

Edition 123 published 21 December 2022

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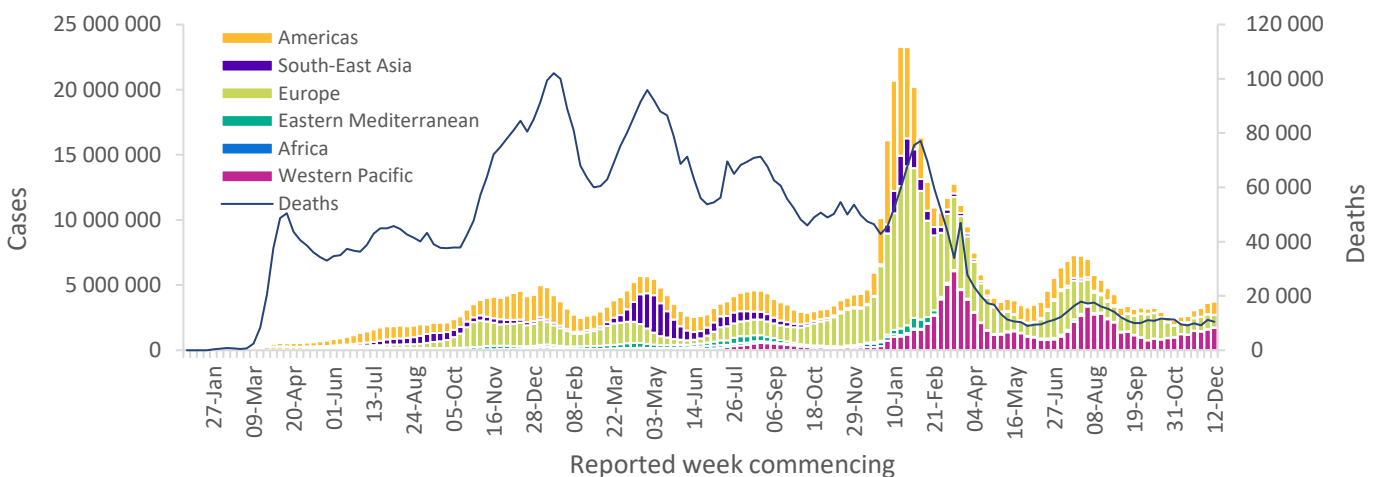
Global overview

Data as of 18 December 2022

Globally, the number of new weekly cases reported during the week of 12 to 18 December 2022 was similar (+3%) to the previous week, with over 3.7 million new cases reported (Figure 1, Table 1). The number of new weekly deaths was 6% lower than in the previous week, with over 10 400 new fatalities reported. In the last 28 days, over 13.7 million cases and over 40 000 new fatalities were reported globally – a 36% increase and 2% decline, respectively, compared to the previous 28 days. As of 18 December 2022, over 649 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 across four of the six WHO regions: the South-East Asia Region (-36%), the African Region (-29%), the Eastern Mediterranean Region (-26%), and the European Region (-16%); while case numbers increased in two WHO regions: the Western Pacific Region (+8%) and the Region of the Americas (+18%). The number of newly reported weekly deaths decreased or remained stable across five regions: the African Region (-95%), the Eastern Mediterranean Region (-39%), the European Region (-22%), the South-East Asia Region (-20%), and the Region of the Americas (+3%); while death numbers increased in the Western Pacific Region (+7%).

Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 18 December 2022**



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

At the country level, the highest numbers of new weekly cases were reported from Japan (1 046 650 new cases; +23%), the Republic of Korea (459 811 new cases; +9%), the United States of America (445 424 new cases; -3%), France (341 136 new cases; -20%), and Brazil (337 810 new cases; +74%). The highest numbers of new weekly deaths were reported from the United States of America (2658 new deaths; -13%), Japan (1617 new deaths; +19%), Brazil (1133 new deaths; +88%), France (686 new deaths; +27%), and Italy (519 new deaths; -23%).

Current trends in reported COVID-19 cases are underestimates of the true number of global infections and reinfections as shown by prevalence surveys.¹⁻⁴ Therefore, the data should be interpreted with caution as several countries have progressively changed COVID-19 testing strategies, resulting in lower numbers of tests performed and consequently lower numbers of cases detected. 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 18 December 2022**

WHO Region	New cases in last 7 days (%)	Change in new cases in last 7 days *	New cases in last 28 days (%)	Change in new cases in last 28 days *	Cumulative cases (%)	New deaths in last 7 days (%)	Change in new deaths in last 7 days *	New deaths in last 28 days (%)	Change in new deaths in last 28 days *	Cumulative deaths (%)
Western Pacific	1 735 536 (46%)	8%	6 272 855 (46%)	44%	103 210 747 (16%)	2647 (25%)	7%	9415 (23%)	49%	290 069 (4%)
Europe	952 783 (25%)	-16%	4 125 631 (30%)	8%	268 239 266 (41%)	2853 (27%)	-22%	13 235 (32%)	-25%	2 147 710 (32%)
Americas	1 022 218 (27%)	18%	3 122 208 (23%)	87%	184 429 273 (28%)	4637 (44%)	3%	16 192 (40%)	13%	2 881 884 (43%)
South-East Asia	15 680 (<1%)	-36%	126 430 (1%)	-31%	60 719 269 (9%)	309 (3%)	-20%	1548 (4%)	-45%	802 804 (12%)
Africa	5094 (<1%)	-29%	35 684 (<1%)	-4%	9 431 508 (1%)	5 (<1%)	-95%	203 (<1%)	11%	175 075 (3%)
Eastern Mediterranean	5690 (<1%)	-26%	29 508 (<1%)	-36%	23 213 600 (4%)	31 (<1%)	-39%	151 (<1%)	-36%	349 007 (5%)
Global	3 737 001 (100%)	3%	13 712 316 (100%)	36%	649 244 427 (100%)	10 482 (100%)	-6%	40 744 (100%)	-2%	6 646 562 (100%)

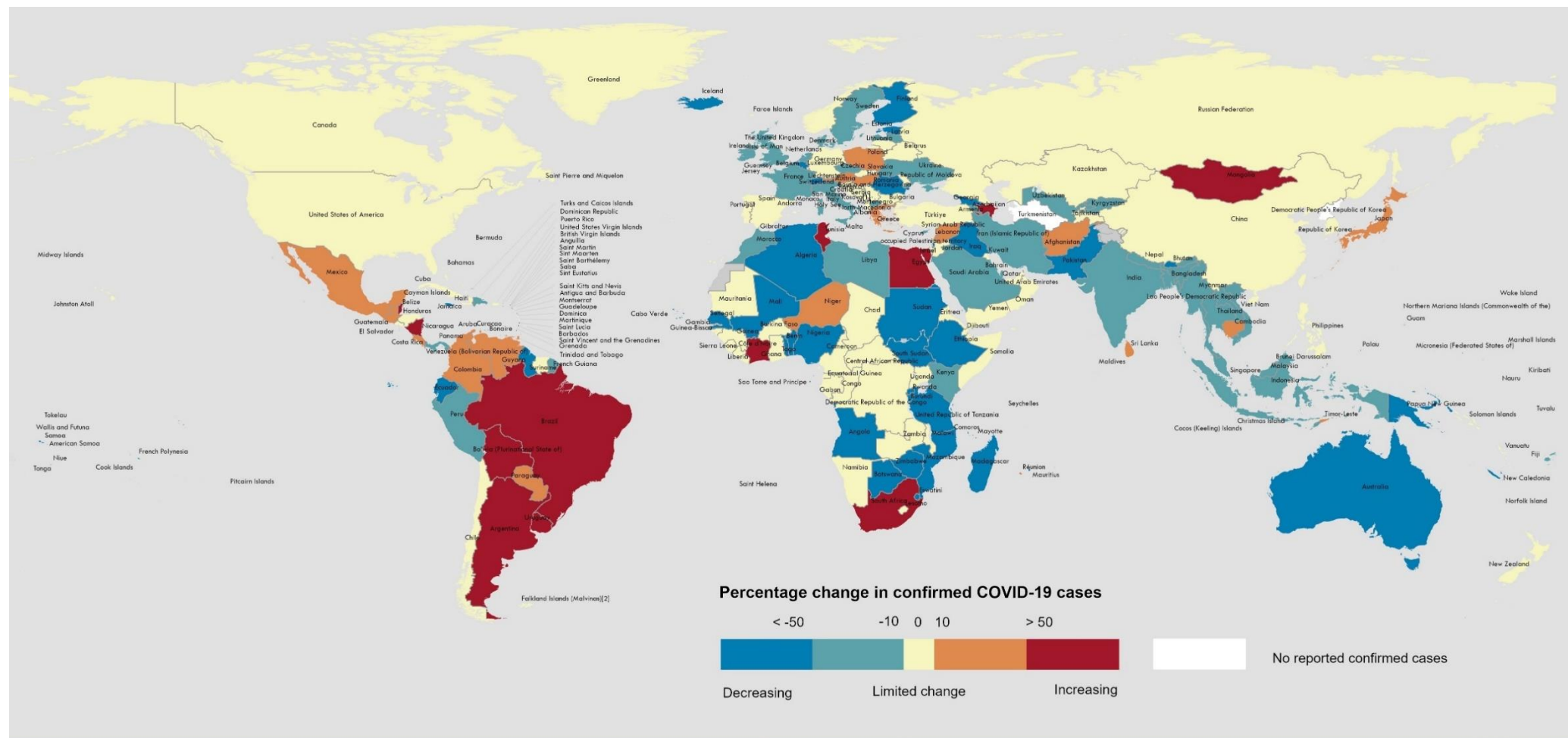
*Percent change in the number of newly confirmed cases/deaths in the past seven days, compared to seven days prior, and past 28 days, compared to 28 days prior. Data from previous weeks are updated continuously with adjustments received from countries.

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

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](#)

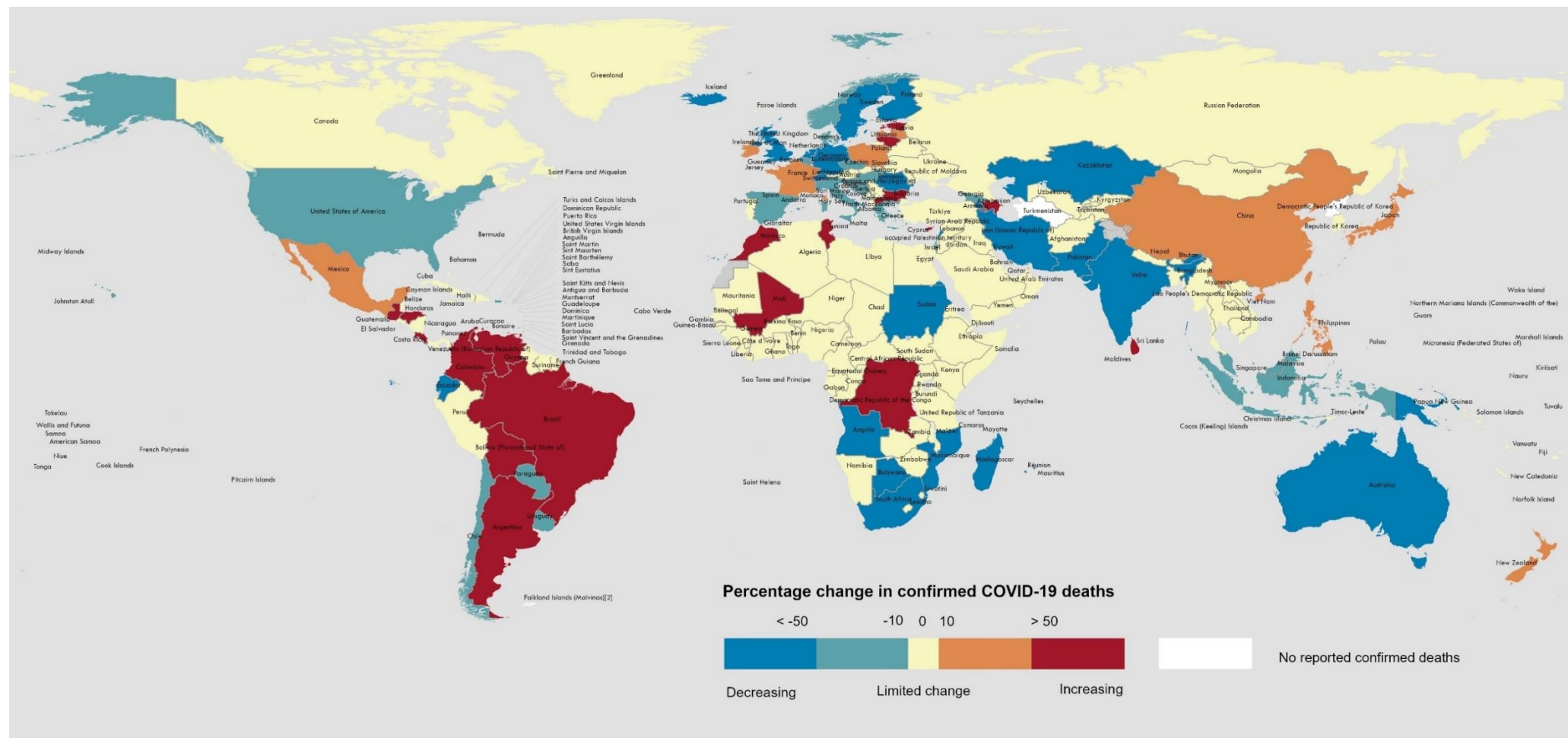
Figure 2. Percentage change in confirmed COVID-19 cases over the last seven days relative to the previous seven days, 12 to 18 December 2022**



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. [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 3. Percentage change in confirmed COVID-19 deaths over the last seven days relative to the previous seven days, 12 to 18 December 2022**



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

Not applicable

0 2,500 5,000 km
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**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 19 November to 19 December 2022, 99 950 SARS-CoV-2 sequences were shared through GISAID. Among these, 99 667 sequences were the Omicron variant of concern (VOC), accounting for 99.7% of sequences reported globally in the past 30 days.

BA.5 and its descendent lineages are still dominant globally, accounting for 68.4% of sequences submitted to GISAID as of week 48 (28 November to 4 December 2022), even though their prevalence is decreasing. The prevalence of BA.2 and its descendent lineages is rising, mainly due to BA.2.75* (* indicates inclusion of descendent lineages); together they account for 12.6% of sequences submitted. BA.4 and its descendent lineages are declining with a prevalence of 1.2% as of week 48. Unassigned sequences (presumably Omicron) accounted for 12.2% of sequences submitted to GISAID in week 48, while the other lineages accounted for 5.9%.

At the global level, six variants currently under monitoring account for 72.9% of prevalence as of week 48, and have replaced the former BA.5 descendent lineages. These six variants under monitoring (and the respective prevalence) are BQ.1* (42.5%), BA.5 with one or several of five mutations (S:R346X, S:K444X, S:V445X, S:N450D, S:N460X) (13.4%), BA.2.75* (9.8%), XBB* (6.1%), BA.4.6* (1%), and BA.2.30.2* (0.1%). Based on current evidence, there is no indication of increased severity associated with these variants under monitoring compared to the former Omicron lineages.

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](#)

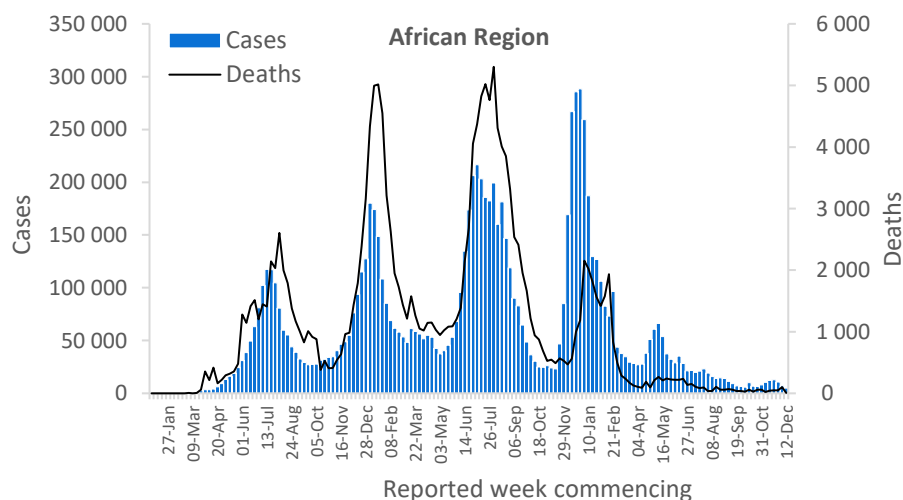
WHO regional overviews:

Epidemiological week 12 to 18 December 2022

African Region

The African Region reported 5094 new cases, a 29% decrease as compared to the previous week. Three (6%) of the 50 countries for which data are available reported increases in new cases of 20% or greater, including Côte d'Ivoire (15 vs seven new cases; +114%) and Niger (16 vs 12 new cases; +33%). The highest numbers of new cases were reported from South Africa (2350 new cases; 4 new cases per 100 000; no cases reported in the previous week), Réunion (1830 new cases; 204.4 new cases per 100 000; +34%), and Mauritius (269 new cases; 21.2 new cases per 100 000; -92%).

The number of new weekly deaths in the region decreased by 95% as compared to the previous week, with five new deaths reported. The decrease is partly due to batch reporting from South Africa in the previous week. The highest numbers of new deaths were reported from the Democratic Republic of the Congo (four new deaths; <1 new death per 100 000; +300%) and Mali (one new death; <1 new death per 100 000; no deaths reported in the previous week).

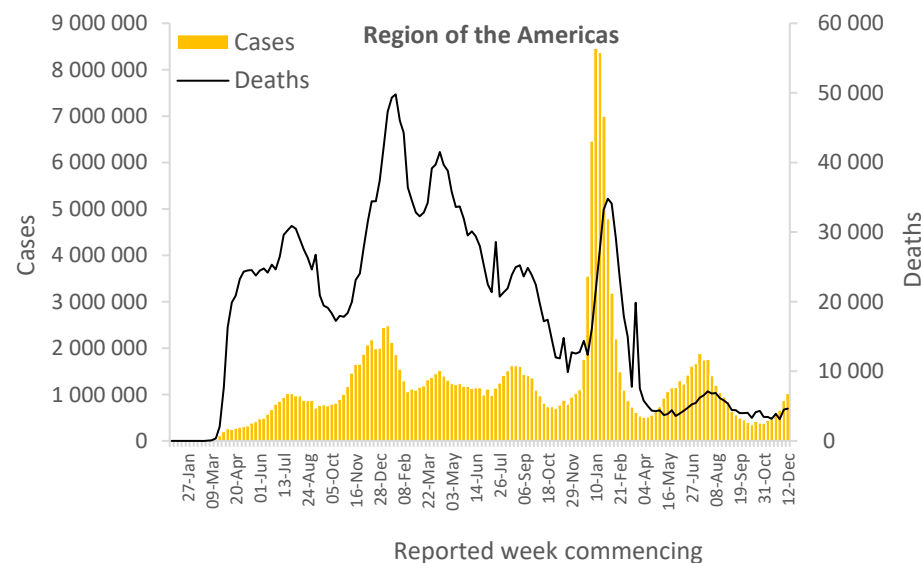


Updates from the [African Region](#)

Region of the Americas

The Region of the Americas reported over one million new cases, an 18% increase as compared to the previous week. Twelve (21%) 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 Belize (259 vs 69 new cases; +275%), Nicaragua (45 vs 13 new cases; +246%), and Saint Vincent and the Grenadines (18 vs eight new cases; +125%). The highest numbers of new cases were reported from the United States of America (445 424 new cases; 134.6 new cases per 100 000; -3%), Brazil (337 810 new cases; 158.9 new cases per 100 000; +74%), and Argentina (62 261 new cases; 137.8 new cases per 100 000; +130%).

The number of new weekly deaths in the region increased by 3% as compared to the previous week, with 4637 new deaths reported. The highest numbers of new deaths were reported from the United States of America (2658 new deaths; <1 new death per 100 000; -13%), Brazil (1133 new deaths; <1 new death per 100 000; +88%), and Canada (250 new deaths; <1 new death per 100 000; similar to the previous week).

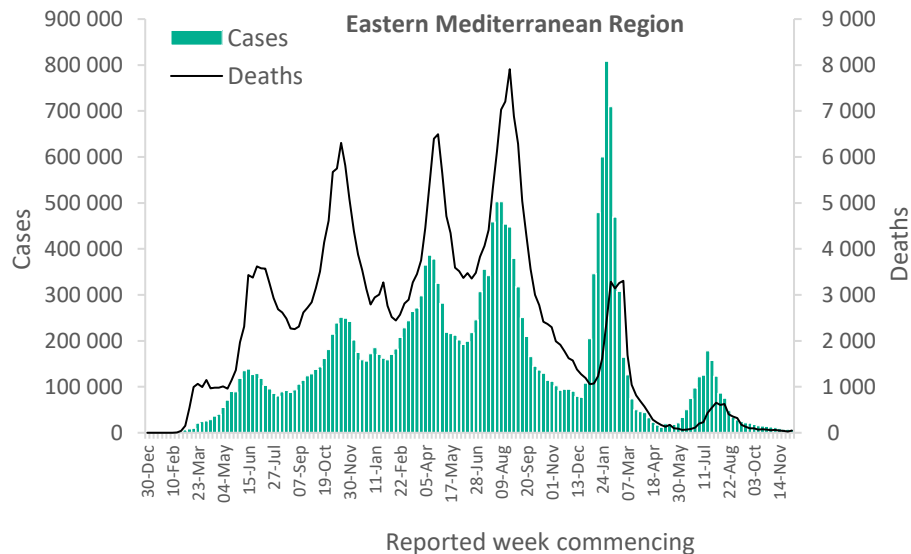


Updates from the [Region of the Americas](#)

Eastern Mediterranean Region

The Eastern Mediterranean Region reported just under 5700 new cases, a 26% decrease as compared to the previous week. 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 Egypt (19 vs three new cases; +533%), Tunisia (137 vs 73 new cases; +88%), and the Syrian Arab Republic (10 vs eight new cases; +25%). The highest numbers of new cases were reported from Qatar (2406 new cases; 83.5 new cases per 100 000; -35%), Morocco (663 new cases; 1.8 new cases per 100 000; -19%), and the United Arab Emirates (663 new cases; 6.7 new cases per 100 000; -8%).

The number of new weekly deaths in the region decreased by 39% as compared to the previous week, with 31 new deaths reported. The highest numbers of new deaths were reported from Saudi Arabia (12 new deaths; <1 new death per 100 000; +9%), Morocco (six new deaths; <1 new death per 100 000; +100%), and Afghanistan (five new deaths; <1 new death per 100 000; similar to the previous week).

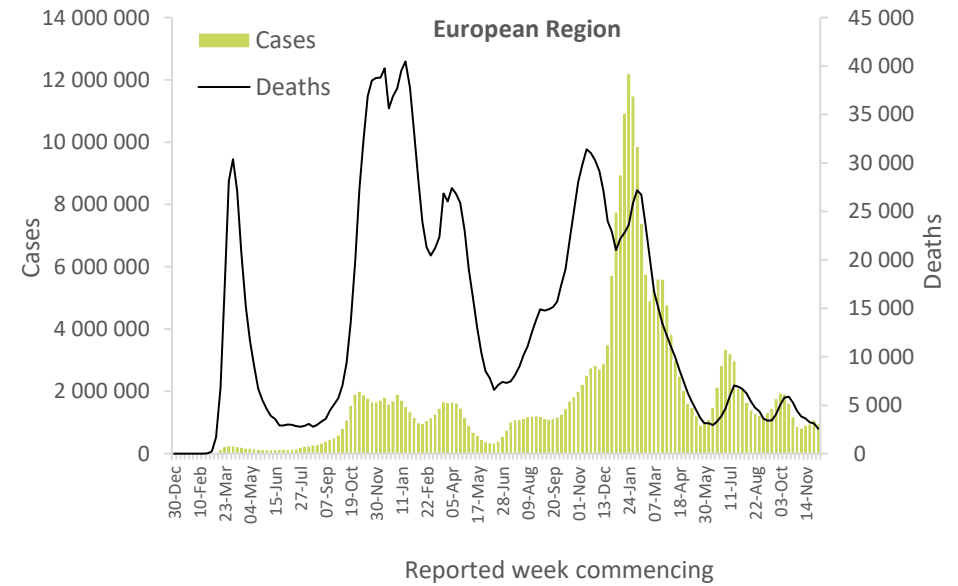


Updates from the [Eastern Mediterranean Region](#)

European Region

The European Region reported over 952 000 new cases, a 16% decrease as compared to the previous week. Five (8%) 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] (13 vs four new cases; +225%), Guernsey (369 vs 180 new cases; +105%), and Azerbaijan (535 vs 350 new cases; +53%). The highest numbers of new cases were reported from France (341 136 new cases; 524.5 new cases per 100 000; -20%), Germany (201 105 new cases; 241.8 new cases per 100 000; +1%), and Italy (130 145 new cases; 218.2 new cases per 100 000; -34%).

The number of new weekly deaths in the region decreased by 22% as compared to the previous week, with 2853 new deaths reported. The highest numbers of new deaths were reported from France (686 new deaths; 1.1 new deaths per 100 000; +27%), Italy (519 new deaths; <1 new death per 100 000; -23%), and the Russian Federation (389 new deaths; <1 new death per 100 000; +2%).

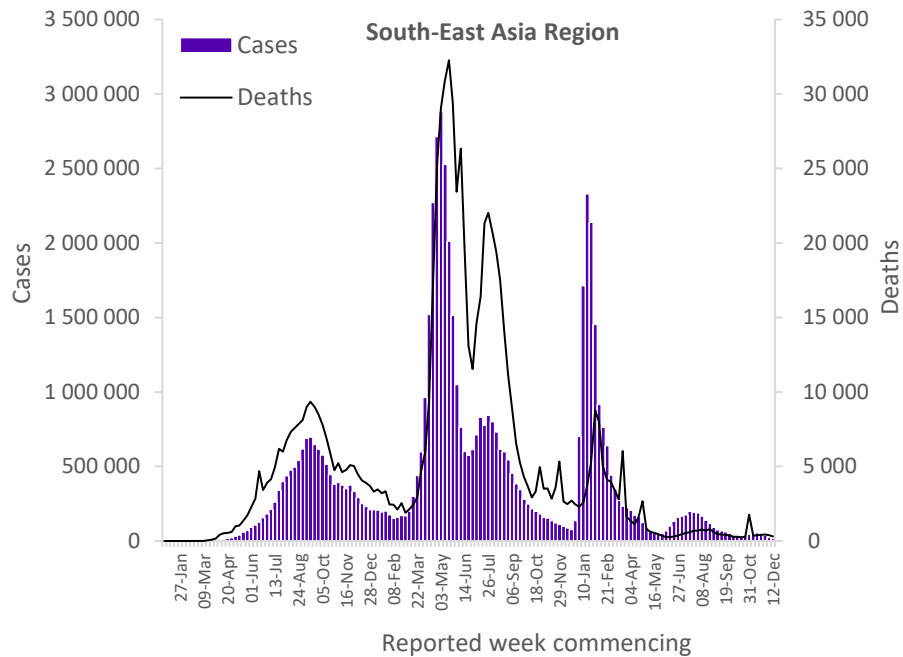


Updates from the [European Region](#)

South-East Asia Region

The South-East Asia Region reported over 15 600 new cases, a 36% decrease as compared to the previous week. No country has reported increases in new cases of 20% or greater compared to the previous week. The highest numbers of new cases were reported from Indonesia (10 807 new cases; 4 new cases per 100 000; -42%), Thailand (3419 new cases; 4.9 new cases per 100 000; -14%), and India (1130 new cases; <1 new case per 100 000; -21%).

The number of new weekly deaths in the region decreased by 20% as compared to the previous week, with 309 new deaths reported. The highest numbers of new deaths were reported from Indonesia (174 new deaths; <1 new death per 100 000; -29%), Thailand (113 new deaths; <1 new death per 100 000; +6%), and India (14 new deaths; <1 new death per 100 000; -53%).

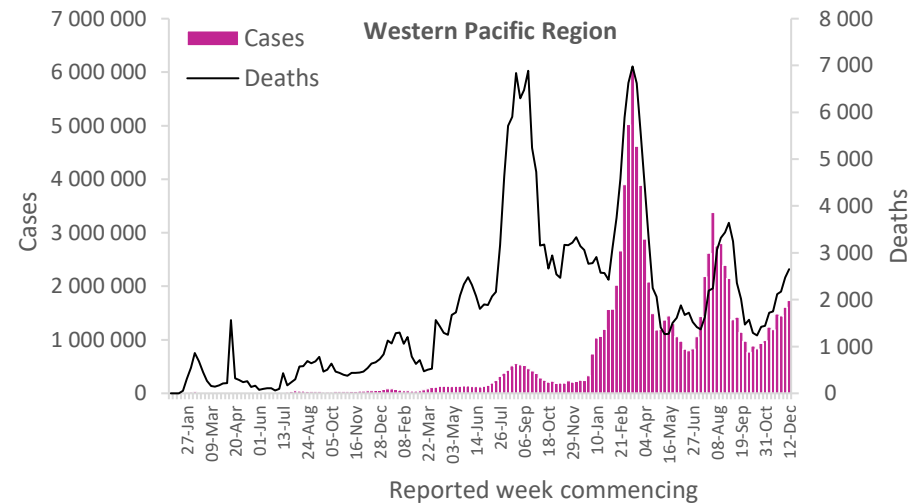


Updates from the [South-East Asia Region](#)

Western Pacific Region

The Western Pacific Region reported over 1.7 million new cases, an 8% increase as compared to the previous week. Four (11%) 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 Mongolia (12 991 vs 707 new cases; +1737%), Niue (76 vs 18 new cases; +322%), and Cambodia (141 vs 107 new cases; +32%). The increase in reported cases in Mongolia is partly due to the inclusion of historical Ag-RDT test results. The highest numbers of new cases were reported from Japan (1 046 650 new cases; 827.5 new cases per 100 000; +23%), the Republic of Korea (459 811 new cases; 896.9 new cases per 100 000; +9%), and China (147 643 new cases; 10 new cases per 100 000; -1%).

The number of new weekly deaths in the region increased by 7% as compared to the previous week, with 2647 new deaths reported. The highest numbers of new deaths were reported from Japan (1617 new deaths; 1.3 new deaths per 100 000; +19%), China (418 new deaths; <1 new death per 100 000; +24%), and the Republic of Korea (326 new deaths; <1 new death per 100 000; -4%).



Updates from the [Western Pacific Region](#)

Hospitalizations and ICU admissions

At the global level, during epidemiological week 49 (5 to 11 December 2022), a total of 26 546 new hospitalizations and 1270 new intensive care unit (ICU) admissions were reported. The presented hospitalization data are preliminary and may 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.

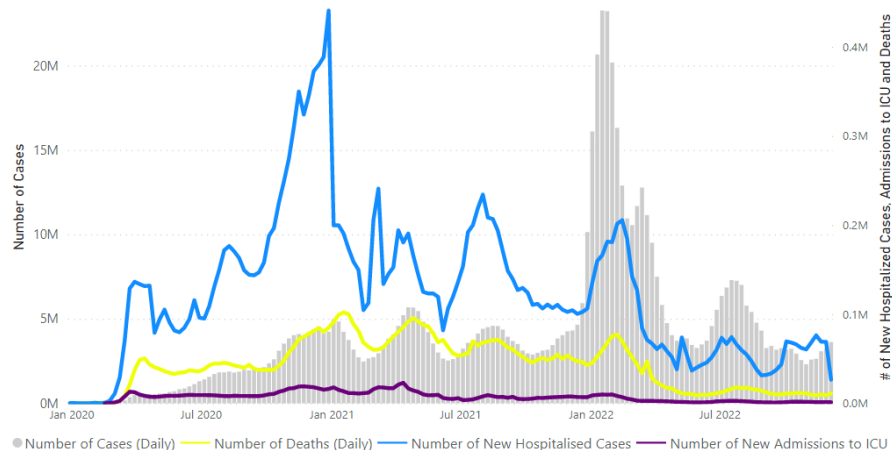
Globally, in week 49, 26 (11%) countries reported data to WHO on new hospitalizations. The region with the highest proportion of countries reporting data on new hospitalizations was the European Region (18 countries; 30%), followed by the Eastern Mediterranean Region (four countries; 18%), the Western Pacific Region (two countries; 6%), the Region of the Americas (one country; 2%), and the African Region (one country; 2%). No country in the South-East Asia Region has reported data on new hospitalizations during week 49.

Across all six WHO regions, in week 49, a total of 21 (9%) 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 European Region (13 countries; 21%), followed by the Eastern Mediterranean Region (four countries; 18%), the Western Pacific region (three countries; 9%), and the African Region (one country; 2%). No country in the South-East Asia Region or the Region of the Americas has reported data on new ICU admissions during week 49.

Among the 16 countries that reported more than 50 new hospitalizations, nine countries showed an increasing trend compared to the previous week: Latvia (381 vs 260 new hospitalizations; +47%), France (9081 vs 7250 new hospitalizations; +25%), Belgium (665 vs 533 new hospitalizations; +25%), Estonia (232 vs 190 new hospitalizations; +22%), Qatar (159 vs 131 new hospitalizations; +21%), Greece (1434 vs 1191 new hospitalizations; +20%), Slovakia (240 vs 202 new hospitalizations; +19%) and Ukraine (2711 vs 2556 new hospitalizations; +6%). France, Belgium, Latvia and Qatar have reported increases in the number of new hospital admissions for four consecutive weeks.

Among the eight countries that reported more than 10 new ICU admissions, one country showed an increasing trend compared to the previous week: France (728 vs 657 new ICU admissions; +11%).

Figure 4. COVID-19 cases, deaths, hospitalizations, and ICU admissions reported weekly to WHO, as of 11 December 2022



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

Source: [WHO Detailed Surveillance Dashboard](#)

Summary of Monthly Operational Update

The [Monthly Operational Update](#) is a report provided by the COVID-19 Strategic Preparedness and Response Plan (SPRP) monitoring and evaluation team which aims to update on the ongoing global progress [against the COVID-19 SPRP 2021](#) framework. In this edition, highlights of country-level actions and WHO support to countries include:

- COVID-19: Increasing vaccination coverage in Haiti through community outreach, despite serious challenges
- WHO and USAID provide life-saving medical equipment to strengthen Mongolia's health system in response to COVID-19
- WHO/Europe facilitates a study tour for Azerbaijan and Portugal to share knowledge on their respective Emergency Response Information Management Systems
- WHO supports health authorities in Mozambique to better prepare for public health emergencies
- Health workers still fighting COVID-19 in an exhausted health system in Yemen
- Promoting COVID-19 vaccination in indigenous communities in Colombia
- WHO/Europe and the Kazakhstan Country Office complete SARI simulation courses on advanced clinical management of patients with severe and critical COVID-19
- WHO convenes partners to enhance community engagement in support of the COVID-19 response and routine health services in Malaysia
- In Benin, medical oxygen offers lifesaving therapy against COVID-19
- Integrating SARS-CoV-2 and influenza surveillance in Timor-Leste
- Working to ensure a healthy FIFA World Cup Qatar 2022: WHO's support to health security
- The WHO Partners Platform: a digital platform changing the way the international community works together to ensure fair and equitable access to COVID-19 Therapeutics
- WHO launches the Emergency Medical Teams 2030 Strategy to strengthen rapid response amid emergencies worldwide
- Country immunization staff prefer self-paced online learning formats, according to survey
- WHO's COVID-19 Response Funding in 2022: Delivering science, solutions and solidarity to end the acute phase of the pandemic

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 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.

References

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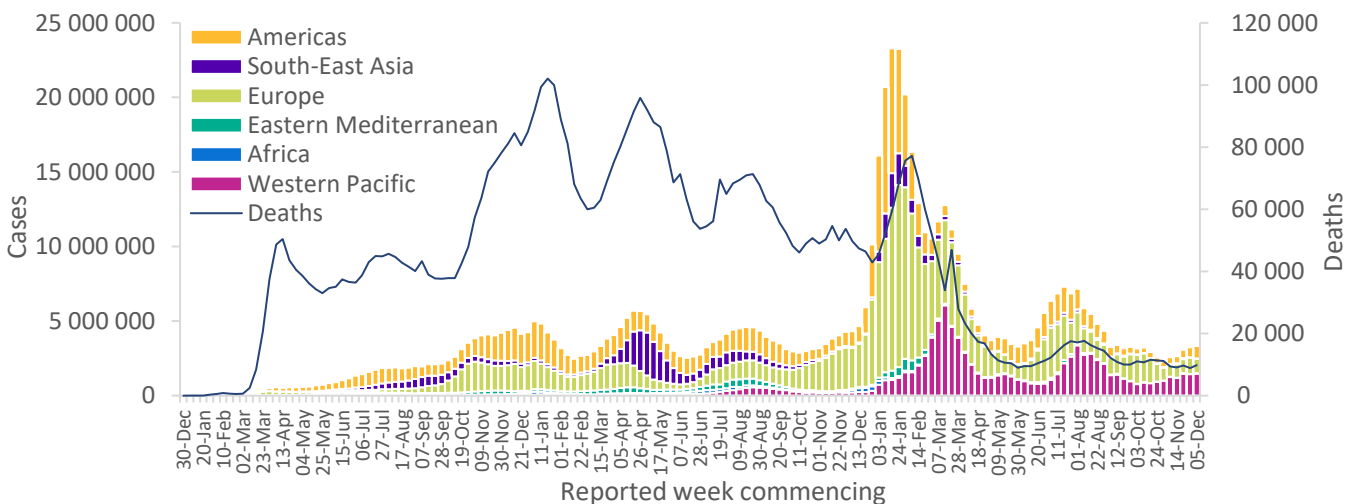
Global overview

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.

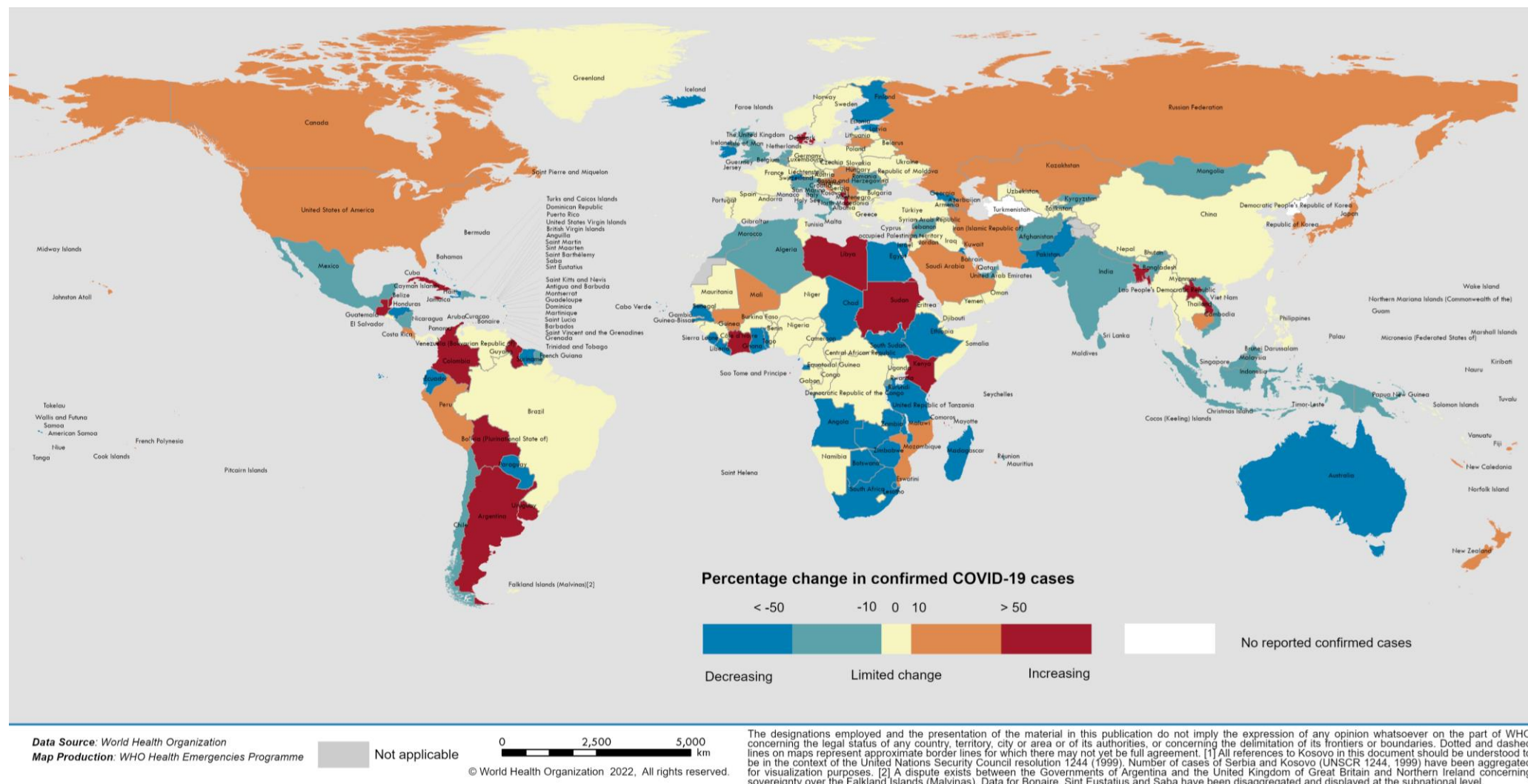
**See [Annex 1: Data, table, and figure notes](#)

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

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

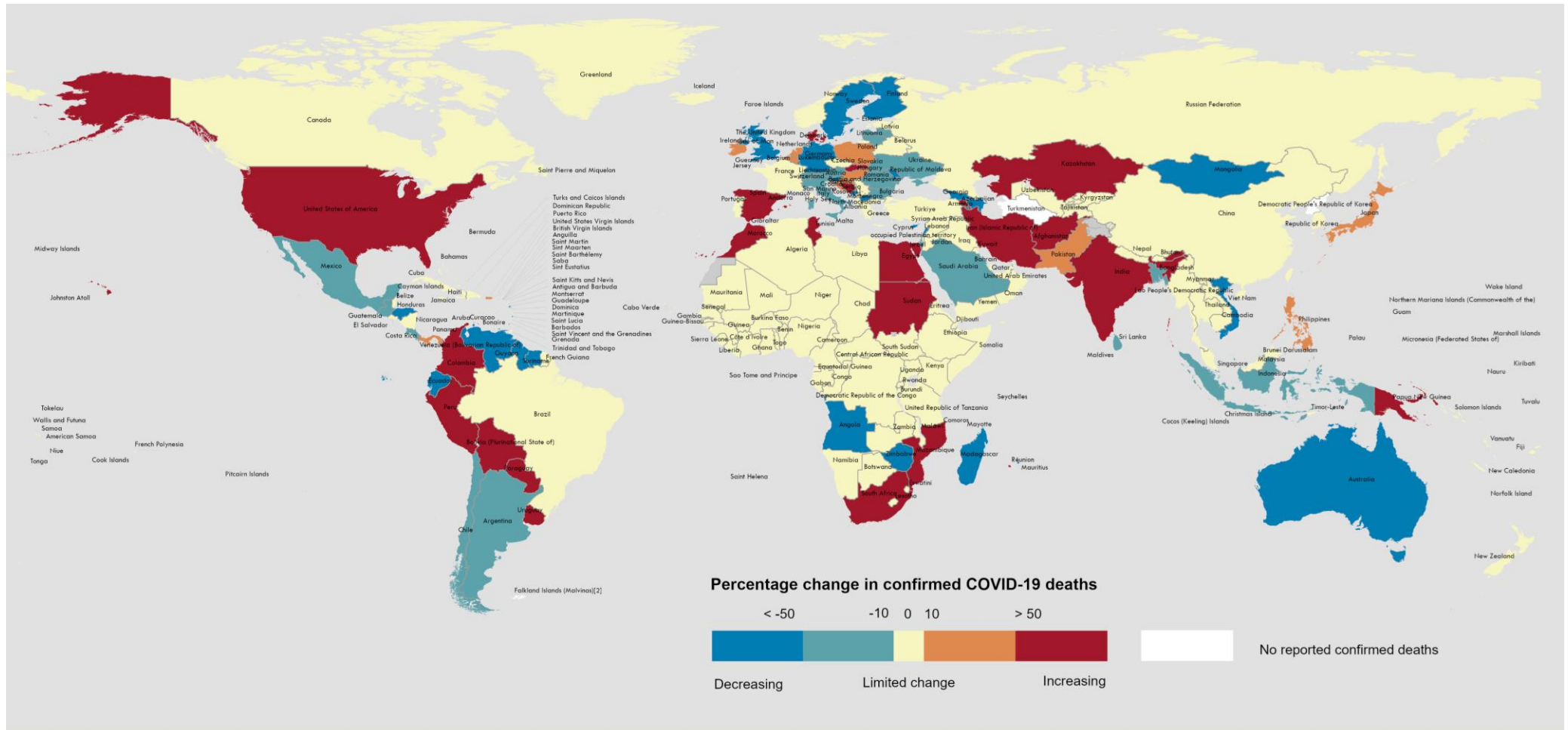
- [WHO COVID-19 Dashboard](#)
- [WHO COVID-19 Monthly Operational Update and previous editions of the Weekly Epidemiological Update](#)
- [WHO COVID-19 detailed surveillance data dashboard](#)
- [WHO COVID-19 policy briefs](#)

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**



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

Not applicable

0 2,500 5,000 km
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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](#)

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%).

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

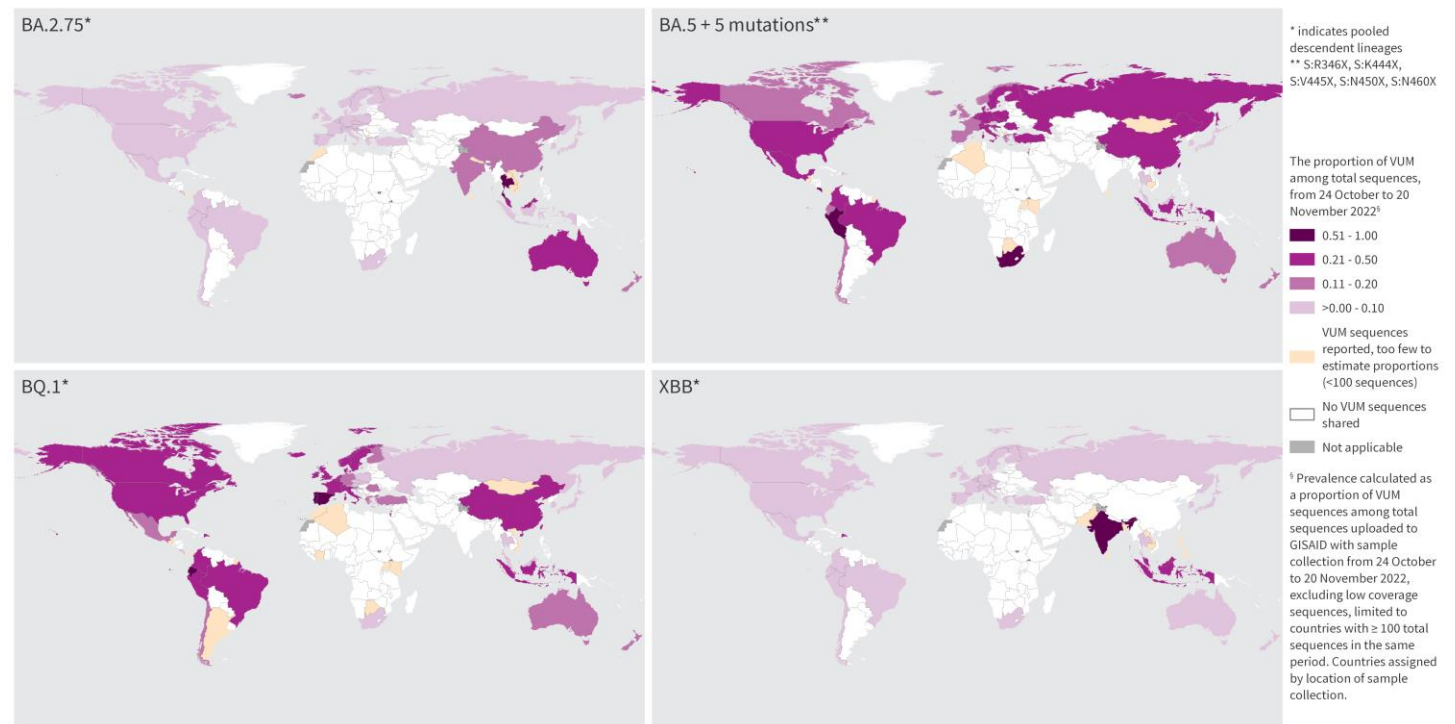
* Includes all descendent lineages.

- **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.

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



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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

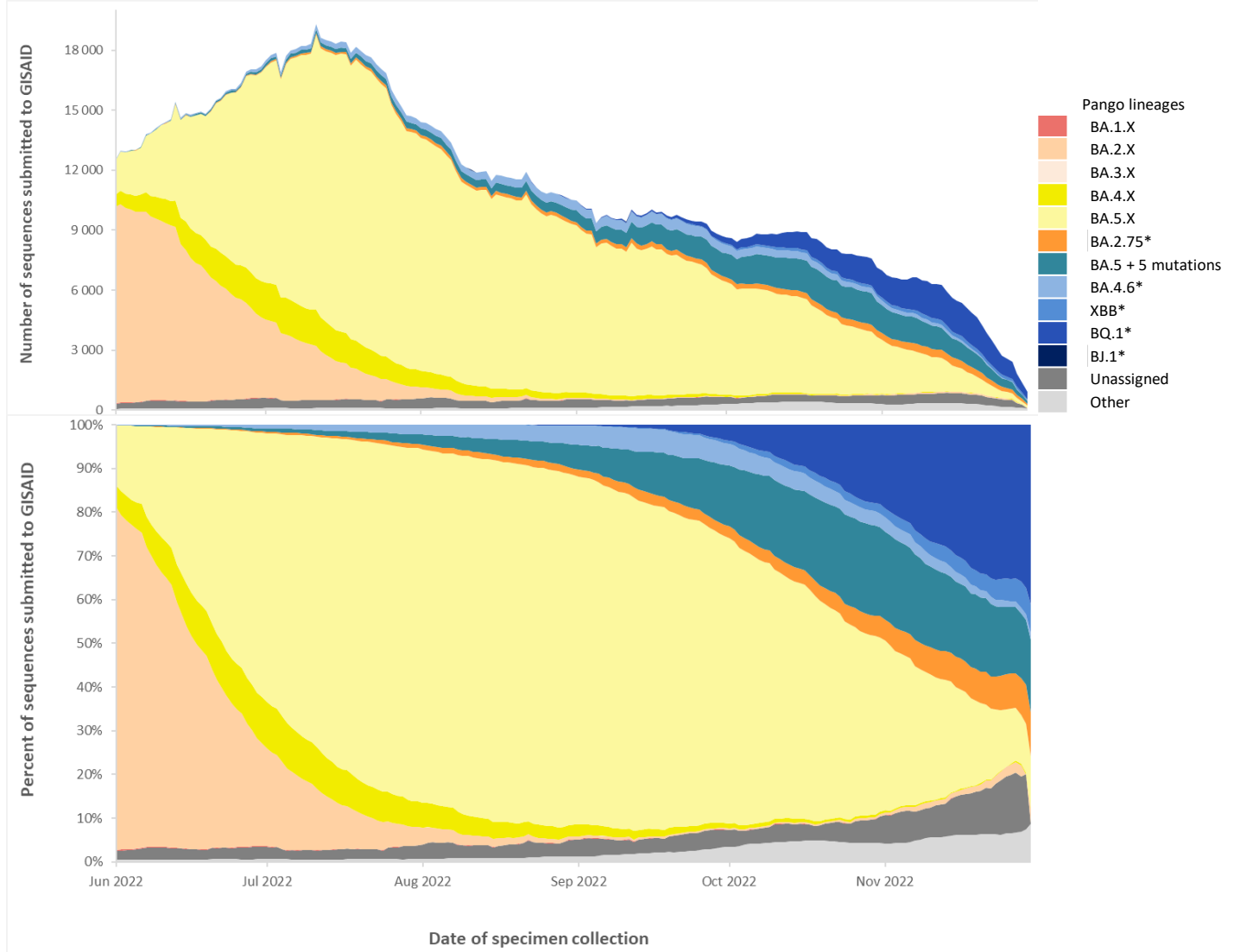


Figure 5 Panel A shows the number, and **Panel B** the percentage, of all circulating variants since June 2022. Omicron sister-lineages and additional Omicron VOC descendent lineages under further monitoring are shown. *BA.1.X*, *BA.2.X*, *BA.3.X*, *BA.4.X* and *BA.5.X* include all BA.1, BA.2, BA.3,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

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 [View-hub.org](https://view-hub.org) 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 [here](#)). 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 [June 29th Weekly Epidemiological Update](#));
- 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 [recent systematic review](#) 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 [VIEW-hub.org](https://view-hub.org) (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](#)

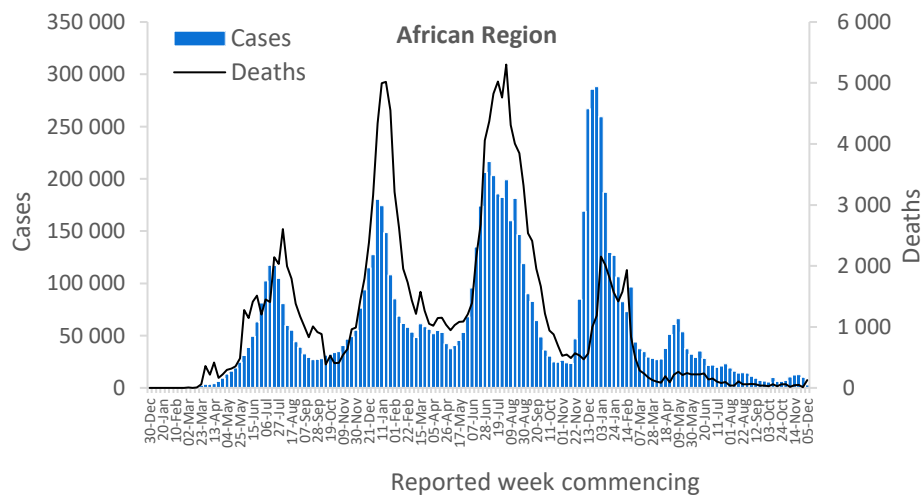
WHO regional overviews:

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%).

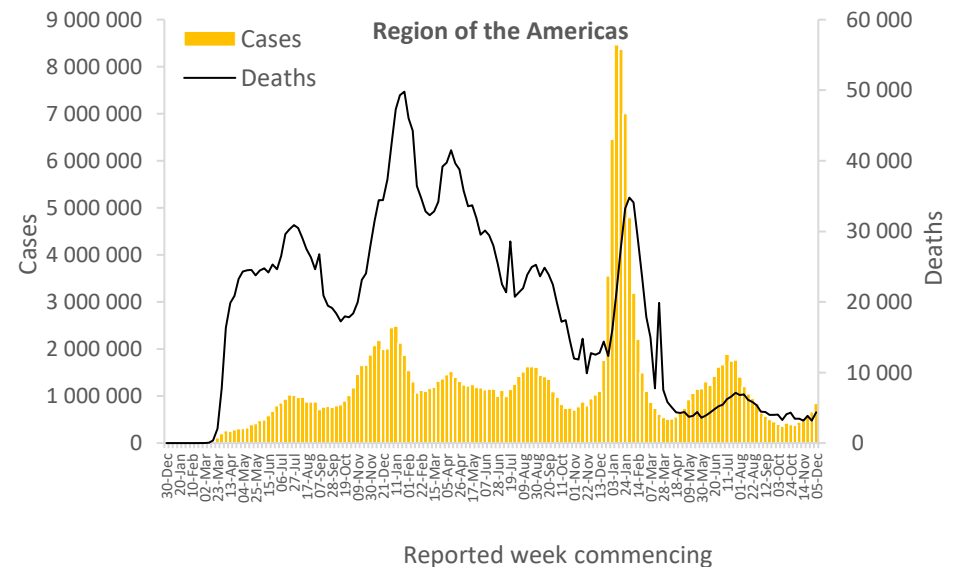


Updates from the [African Region](#)

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%).

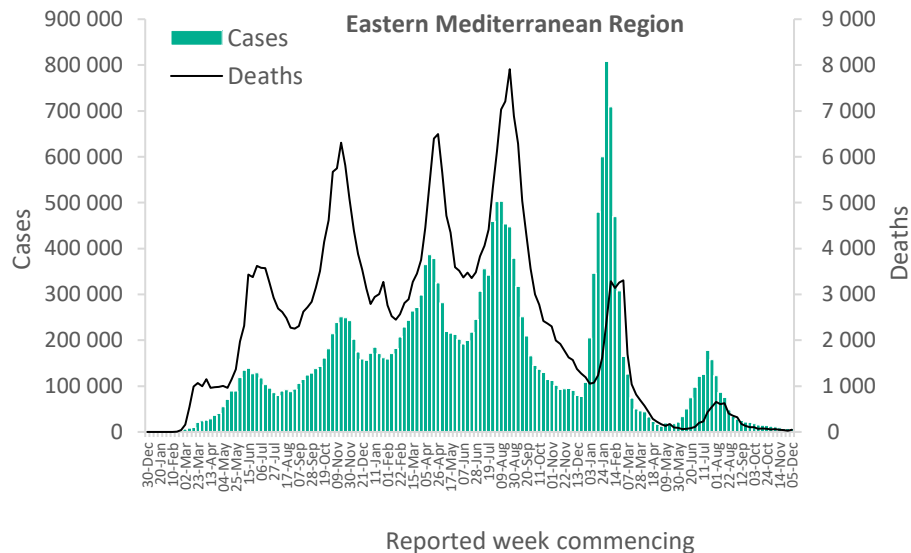


Updates from the [Region of the Americas](#)

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%).

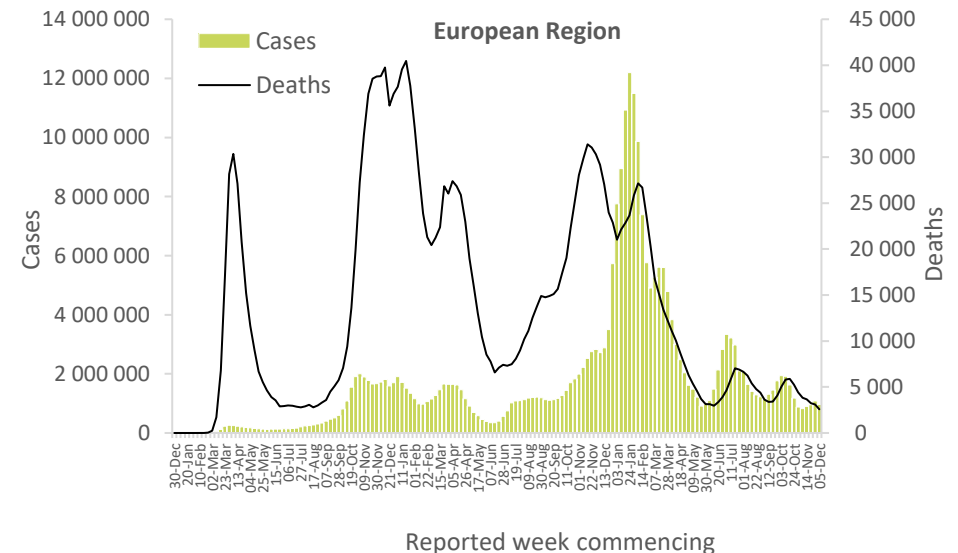


Updates from the [Eastern Mediterranean Region](#)

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%).

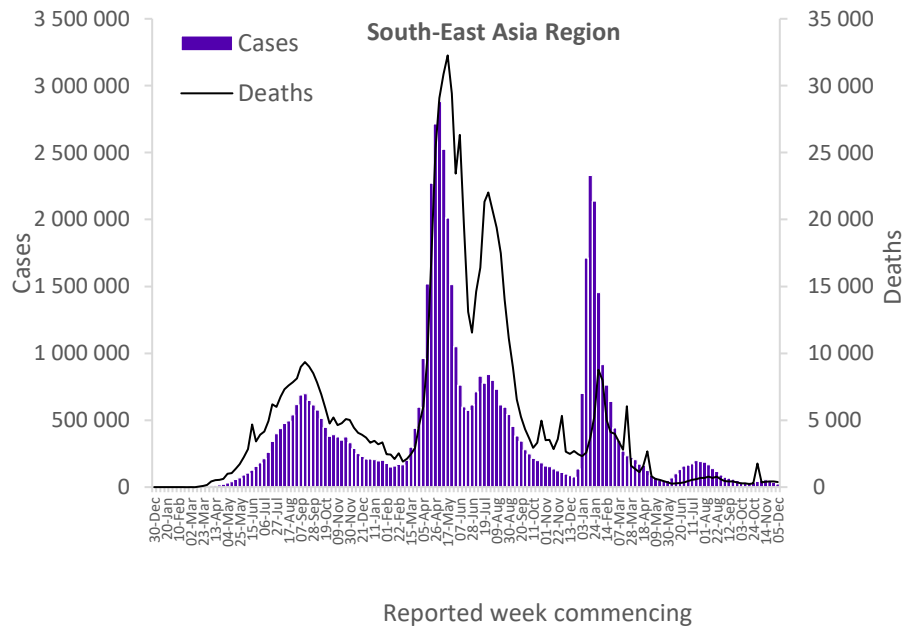


Updates from the [European Region](#)

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%).

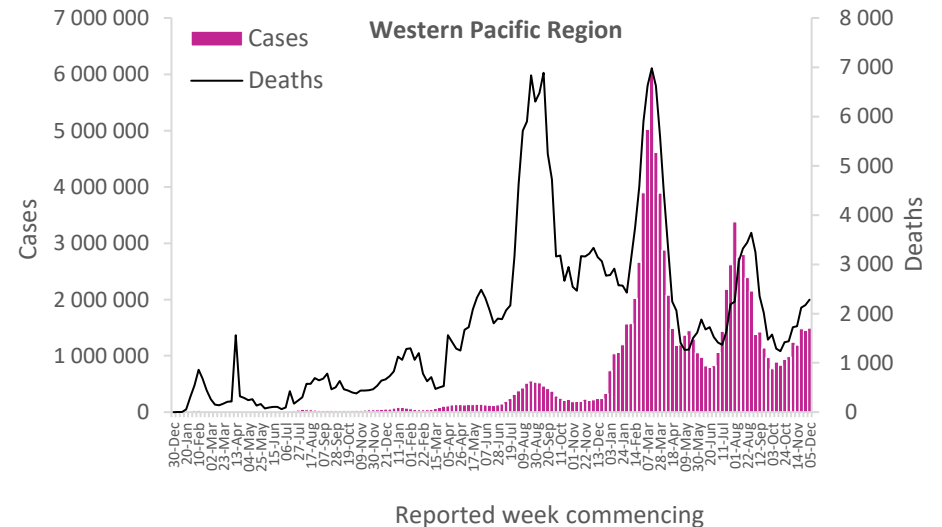


Updates from the [South-East Asia Region](#)

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%).



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.

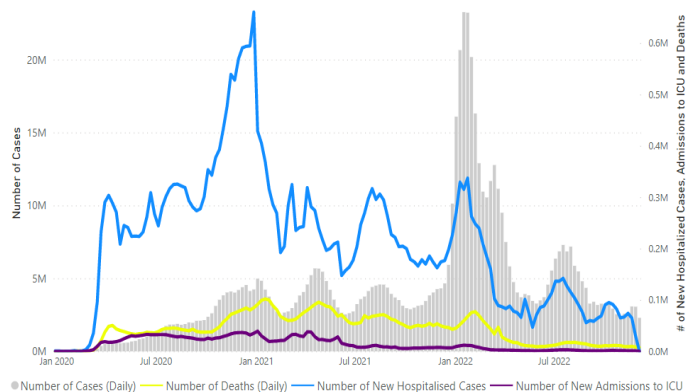
Globally, in week 48, 32 (14%) countries reported data to WHO on new hospitalizations. The region with the highest proportion of countries reporting data on new hospitalizations was the European Region (16 countries; 26%), followed by the Eastern Mediterranean Region (four countries; 18%), the Region 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 ICU 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 [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 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

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COVID-19 Weekly Epidemiological Update

Edition 121 published 7 December 2022

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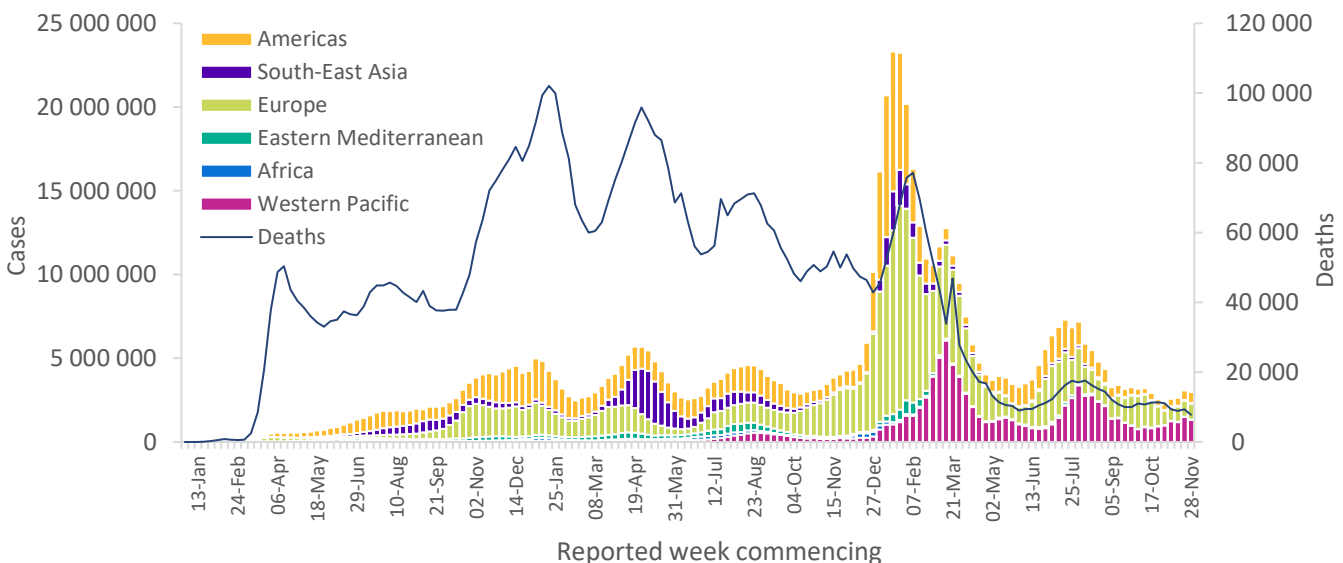
Global overview

Data as of 4 December 2022

Globally, the number of new weekly cases remained stable (-3%) during the week of 28 November to 4 December 2022 as compared to the previous week, with just under 3 million new cases reported (Figure 1, Table 1). The number of new weekly deaths decreased by 17% as compared to the previous week, with over 7800 new fatalities reported. As of 4 December 2022, over 641 million confirmed cases and over 6.6 million 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 (-78%), the South-East Asia Region (-27%), the European Region (<1%), the Western Pacific Region (-10%), and the Eastern Mediterranean Region (-4%); while case numbers increased in one WHO region: the Region of the Americas (+14%). The number of newly reported weekly deaths decreased or remained stable across all six regions: the African Region (-83%), the Eastern Mediterranean Region (-33%), the Region of the Americas (-22%), the European Region (-19%), the Western Pacific Region (-5%), and the South-East Asia Region (+3%).

Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 4 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 (749 895 new cases; +7%), France (385 716 new cases; +38%), the Republic of Korea (370 574 new cases; -2%), the United States of America (296 333 new cases; -1%), and Brazil (188 043 new cases; +25%). The highest numbers of new weekly deaths were reported from the United States of America (1744 new deaths; -33%), Japan (1063 new deaths; +6%), Brazil (632 new deaths; +18%), Italy (462 new deaths; -22%), and France (424 new deaths; +2%).

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 4 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	1 335 908 (45%)	-10%	99 756 658 (16%)	2006 (26%)	-5%	284 778 (4%)
Europe	955 767 (32%)	<1%	265 935 160 (41%)	2348 (30%)	-19%	2 138 393 (32%)
Americas	640 477 (21%)	14%	182 503 613 (28%)	3013 (38%)	-22%	2 872 278 (43%)
South-East Asia	36 462 (1%)	-27%	60 679 181 (9%)	431 (6%)	3%	802 107 (12%)
Eastern Mediterranean	7385 (<1%)	-4%	23 199 165 (4%)	27 (<1%)	-33%	348 923 (5%)
Africa	3224 (<1%)	-78%	9 412 553 (1%)	8 (<1%)	-83%	174 927 (3%)
Global	2 979 223 (100%)	-3%	641 487 094 (100%)	7833 (100%)	-17%	6 621 419 (100%)

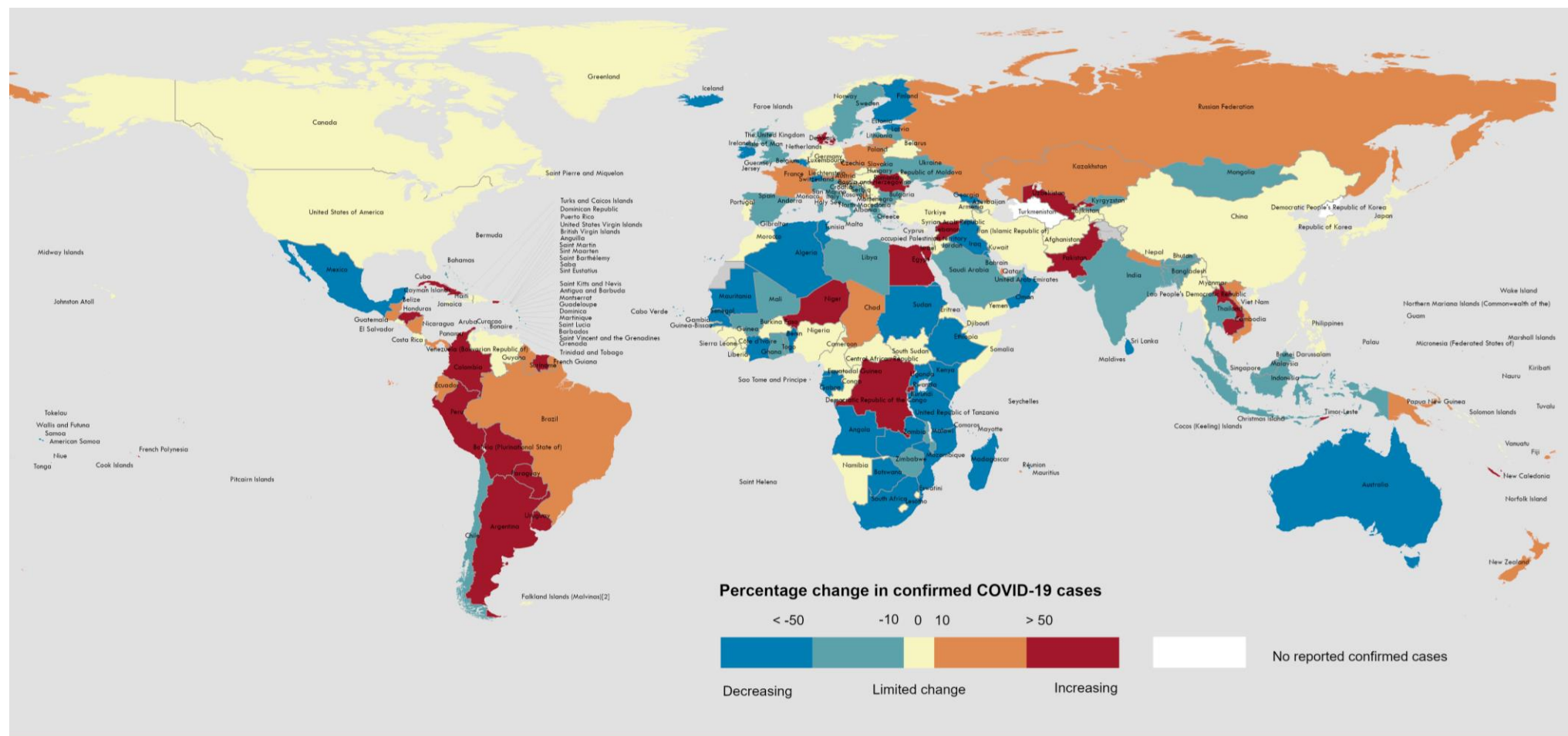
*Percent change in the number of newly confirmed cases/deaths in the past seven days, compared to seven days prior. Data from previous weeks are updated continuously with adjustments received from countries.

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

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](#)

Figure 2. Percentage change in confirmed COVID-19 cases over the last seven days relative to the previous seven days, 28 November to 4 December 2022**



Data Source: World Health Organization

Map Production: WHO Health Emergencies Programme

Not applicable

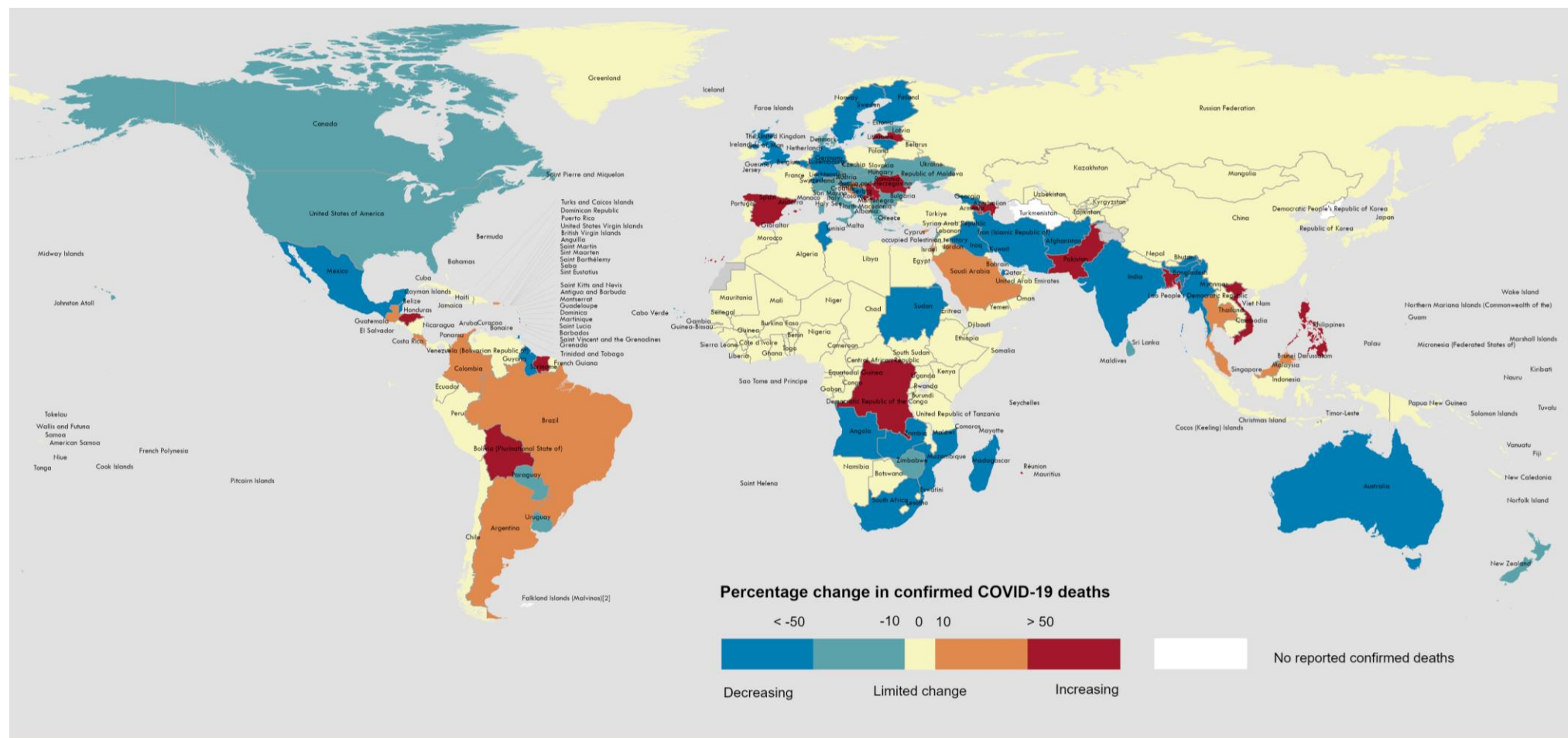


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**See [Annex 1: Data, table, and figure notes](#)

Figure 3. Percentage change in confirmed COVID-19 deaths over the last seven days relative to the previous seven days, 28 November to 4 December 2022**



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

Not applicable
0 2,500 5,000 km
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**See [Annex 1: Data, table, and figure notes](#)

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

Geographic spread and prevalence of VOCs

Globally, from 5 November to 5 December 2022, 105 224 SARS-CoV-2 sequences were shared through GISAID. Among these, 92 399 sequences were the Omicron variant of concern (VOC), accounting for 87.8% of sequences reported globally in the past 30 days. Unassigned sequences (presumed to be Omicron) accounted for 12.2% of sequences submitted to GISAID in week 46.

The 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 sequence submission. The majority of sequences submitted to GISAID are from countries with high sequencing capacity, mostly high-income countries.⁵ Therefore, sequencing information provided may not be representative of the global situation of SARS-CoV-2.

During epidemiological week 46 (14 to 20 November 2022), BA.5 and its descendent lineages continued to be dominant globally, accounting for 70.1% of sequences submitted to GISAID. The prevalence of BA.2 and its descendent lineages increased from 9.6% in epidemiological week 45 (7 to 13 November) to 10.5% in week 46 (14 to 20 November 2022). During the same period, BA.4 descendent lineages declined from 2.8% to 2.0%.

Among the Omicron subvariants under monitoring, a comparison of sequences submitted during weeks 45 and 46 shows an increase from 27.6% to 36.2% for BQ.1 and its descendent lineages. During the same period, the prevalence of XBB and its descendent lineages increased from 4.2% to 5.0%. BA.2.75 increased from 6.8% to 7.8%, while BA.4.6 decreased from 2.5% to 1.7%. BA.2.3.20 remained stable at 0.3%.

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](#)

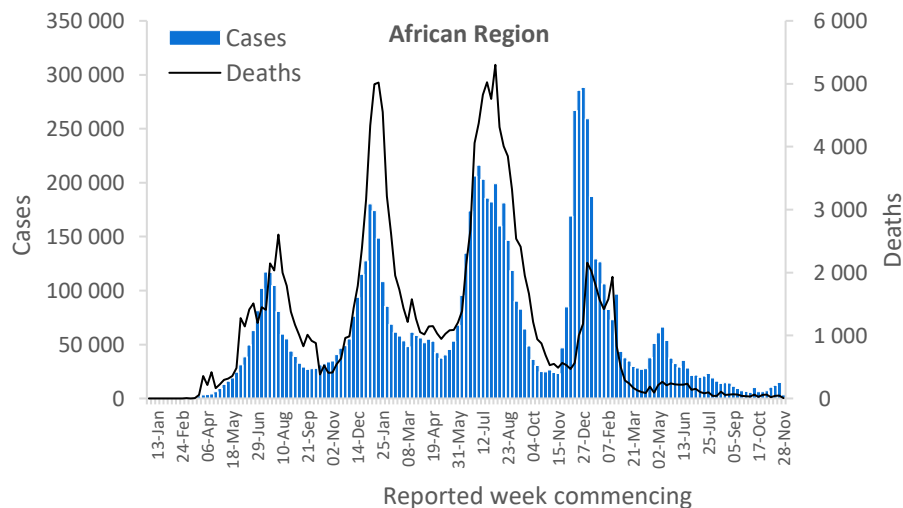
WHO regional overviews:

Epidemiological week 28 November to 4 December 2022

African Region

The African Region reported 3224 new cases, a 78% 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 some of the highest proportional increases observed in the Democratic Republic of the Congo (248 vs 49 new cases; +406%), Rwanda (81 vs 38 new cases; +113%), and Chad (five vs four new cases; +25%). The highest numbers of new cases were reported from Réunion (1217 new cases; 135.9 new cases per 100 000; +36%), Mauritius (515 new cases; 40.5 new cases per 100 000; -89%), and Mayotte (473 new cases; 173.4 new cases per 100 000; -20%).

The number of new weekly deaths in the region decreased by 83% as compared to the previous week, with eight new deaths reported. The highest numbers of new deaths were reported from Zimbabwe (four new deaths; <1 new death per 100 000; -20%), Angola (one new death; <1 new death per 100 000; -67%), and the Democratic Republic of the Congo (one new death; <1 new death per 100 000; no deaths reported the previous week).

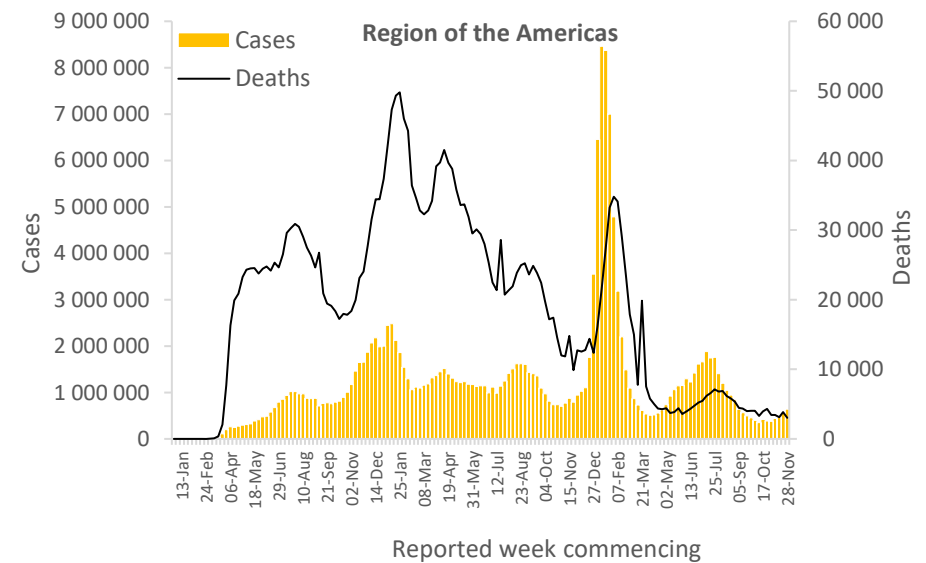


Updates from the [African Region](#)

Region of the Americas

The Region of the Americas reported over 640 000 new cases, a 14% increase as compared to the previous week. Sixteen (29%) 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 Argentina (12 609 vs 3323 new cases; +279%), Paraguay (338 vs 93 new cases; +263%), and Bolivia (Plurinational State of) (1038 vs 438 new cases; +137%). The highest numbers of new cases were reported from the United States of America (296 333 new cases; 89.5 new cases per 100 000; -1%), Brazil (188 043 new cases; 88.5 new cases per 100 000; +25%), and Peru (61 929 new cases; 187.8 new cases per 100 000; +88%).

The number of new weekly deaths in the region decreased by 22% as compared to the previous week, with 3013 new deaths reported. The highest numbers of new deaths were reported from the United States of America (1744 new deaths; <1 new death per 100 000; -33%), Brazil (632 new deaths; <1 new death per 100 000; +18%), and Canada (228 new deaths; <1 new death per 100 000; -19%).

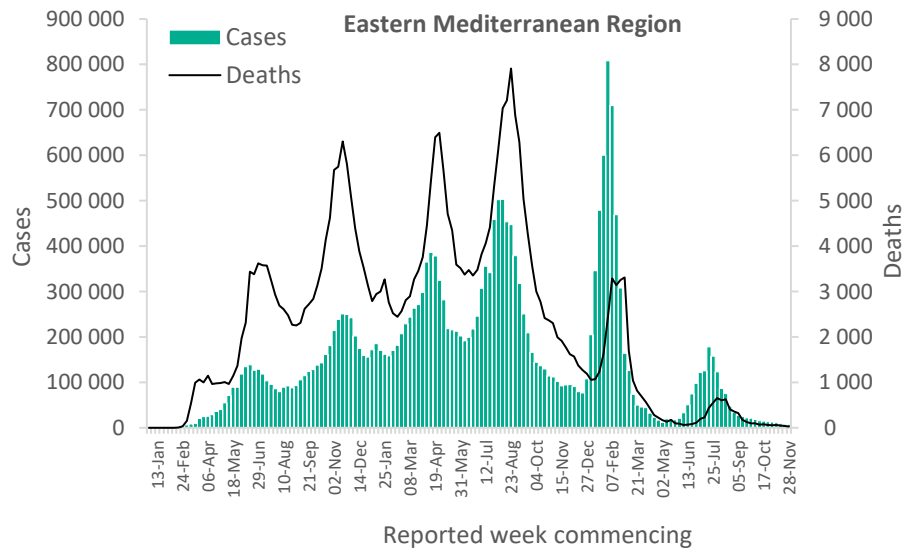


Updates from the [Region of the Americas](#)

Eastern Mediterranean Region

The Eastern Mediterranean Region reported 7385 new cases, a 4% 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 Pakistan (325 vs 69 new cases; +371%), Egypt (22 vs 11 new cases; +100%), and the Syrian Arab Republic (11 vs seven new cases; +57%). The highest numbers of new cases were reported from Qatar (2679 new cases; 93 new cases per 100 000; +49%), Morocco (1001 new cases; 2.7 new cases per 100 000; -3%), and the United Arab Emirates (906 new cases; 9.2 new cases per 100 000; -38%).

The number of new weekly deaths in the region decreased by 33% as compared to the previous week, with 27 new deaths reported. The highest numbers of new deaths were reported from Saudi Arabia (14 new deaths; <1 new death per 100 000; +27%), Lebanon (five new deaths; <1 new death per 100 000; -29%), and the Islamic Republic of Iran (four new deaths; <1 new death per 100 000; -50%).

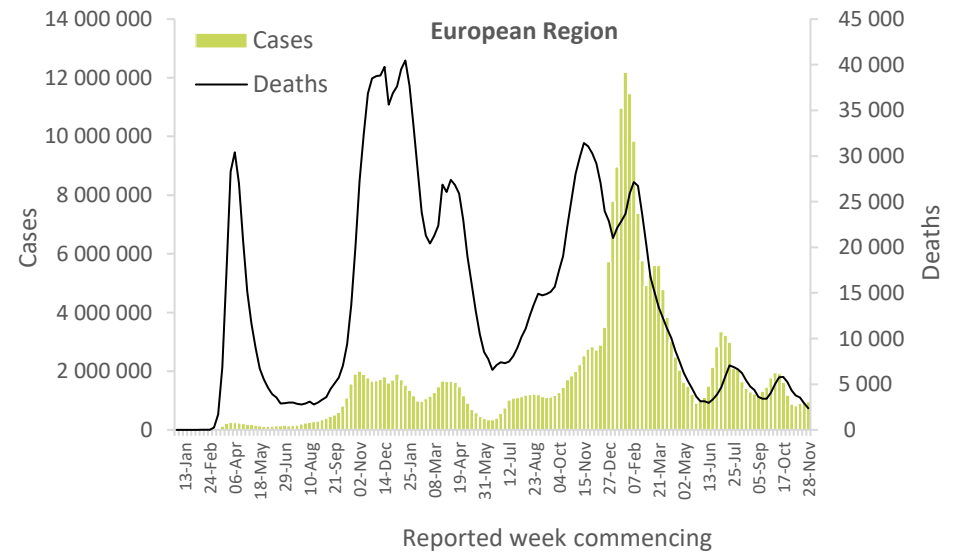


Updates from the [Eastern Mediterranean Region](#)

European Region

The European Region reported over 955 000 new cases, which is similar to the figure reported during the previous week. Eleven (18%) 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 Romania (2387 vs 382 new cases; +525%), Gibraltar (14 vs nine new cases; +56%), and Denmark (6266 vs 4089 new cases; +53%). The highest numbers of new cases were reported from France (385 716 new cases; 593.1 new cases per 100 000; +38%), Germany (165 996 new cases; 199.6 new cases per 100 000; -2%), and Italy (160 416 new cases; 269 new cases per 100 000; -30%).

The number of new weekly deaths in the region decreased by 19% as compared to the previous week, with 2348 new deaths reported. The highest numbers of new deaths were reported from Italy (462 new deaths; <1 new death per 100 000; -22%), France (424 new deaths; <1 new death per 100 000; +2%), and the Russian Federation (391 new deaths; <1 new death per 100 000; +1%).

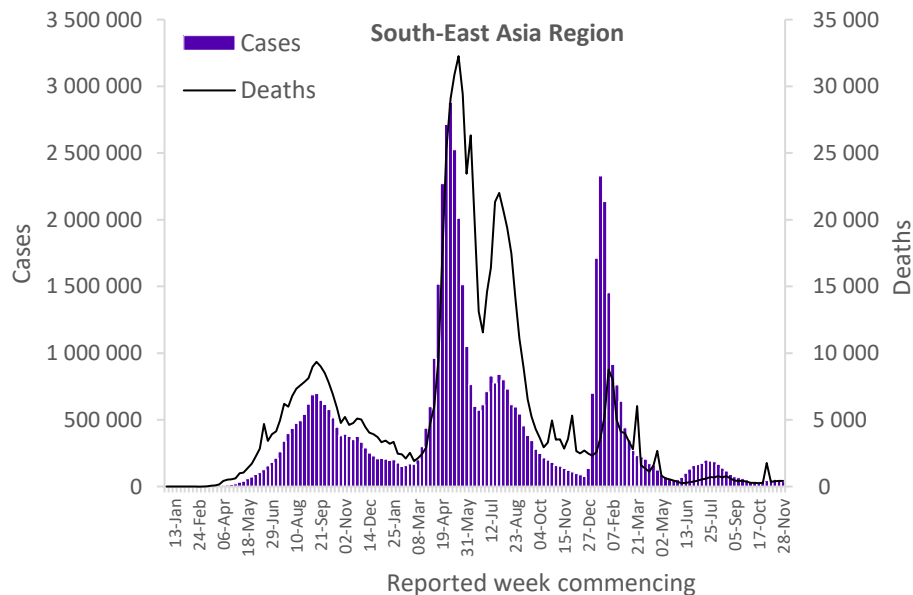


Updates from the [European Region](#)

South-East Asia Region

The South-East Asia Region reported over 36 000 new cases, a 27% decrease as compared to the previous week. One (10%) of the 10 countries for which data are available reported an increase in new cases of 20% or greater: Timor-Leste (17 vs 11 new cases; +55%). The highest numbers of new cases were reported from Indonesia (29 959 new cases; 11 new cases per 100 000; -28%), Thailand (4284 new cases; 6.1 new cases per 100 000; -13%), and India (1830 new cases; <1 new case per 100 000; -28%).

The number of new weekly deaths in the region increased by 3% as compared to the previous week, with 431 new deaths reported. The highest numbers of new deaths were reported from Indonesia (302 new deaths; <1 new death per 100 000; +2%), Thailand (105 new deaths; <1 new death per 100 000; +42%), and India (16 new deaths; <1 new death per 100 000; -58%).

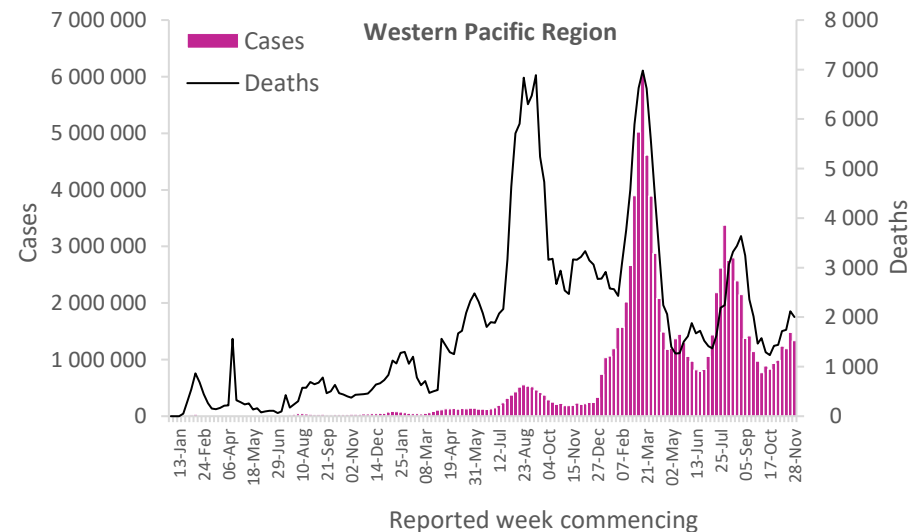


Updates from the [South-East Asia Region](#)

Western Pacific Region

The Western Pacific Region reported over 1.3 million new cases, a 10% decrease as compared to the previous week. Five (15%) 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 Niue (58 vs 11 new cases; +427%), French Polynesia (376 vs 72 new cases; +422%), and Cambodia (72 vs 35 new cases; +106%). The highest numbers of new cases were reported from Japan (749 895 new cases; 592.9 new cases per 100 000; +7%), the Republic of Korea (370 574 new cases; 722.8 new cases per 100 000; -2%), and China (146 141 new cases; 9.9 new cases per 100 000; +1%).

The number of new weekly deaths in the region decreased by 5% as compared to the previous week, with 2006 new deaths reported. The highest numbers of new deaths were reported from Japan (1063 new deaths; <1 new death per 100 000; +6%), the Republic of Korea (360 new deaths; <1 new death per 100 000; +7%), and China (359 new deaths; <1 new death per 100 000; -9%).



Updates from the [Western Pacific Region](#)

Hospitalizations and ICU admissions

At the global level, during epidemiological week 47 (21 to 27 November 2022), a total of 61 117 new hospitalizations and 962 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.

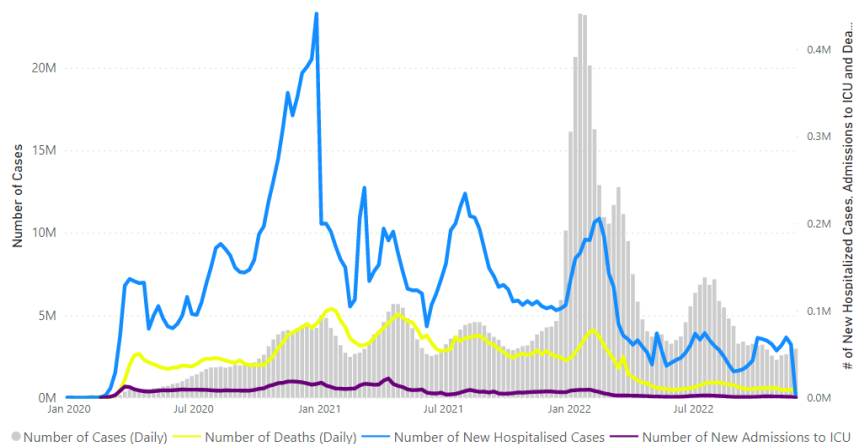
Globally, in week 47, 31 (13%) countries reported data to WHO on new hospitalizations. The region with the highest proportion of countries reporting data on new hospitalizations was the European Region (21 countries; 30%), followed by the Eastern Mediterranean Region (six countries; 27%), the South-East Asia Region (one country; 9%), the Region of the Americas (four countries; 7%) and the Western Pacific Region two countries; 6%). To date, no country in the African Region has reported data on new hospital admissions during week 47.

Across the six WHO regions, in week 47, a total of 20 (9%) 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 (five countries; 23%), followed by the European Region (11 countries; 18%), the Western Pacific region two countries; 6%) and the Region of the Americas (two countries; 4%). So far, no country in the South-East Asia Region and the African Region has reported data on new ICU admissions during week 47.

Among the 20 countries that reported more than 50 new hospitalizations, seven countries showed an increasing trend compared to the previous week: Uzbekistan (346 vs 210 new hospitalizations; +65%), China (23 062 vs 14 803 new hospitalizations; +56%), Latvia (196 vs 144 new hospitalizations; +36%), Qatar (71 vs 55 new hospitalizations; +29%), Belgium (416 vs 330 new hospitalizations; +26%), Argentina (106 vs 96 new hospitalizations; +10%) and France (5572 vs 5303 new hospitalizations; +5%). Uzbekistan, China, and Argentina reported increasing hospital admissions for four consecutive weeks.

Among the seven countries that reported more than 10 new ICU admissions, three countries showed an increasing trend compared to the previous week: Netherlands (22 vs 13 new ICU admissions; +69%), France (530 vs 477 new ICU admissions; +11%) and Malaysia (95 vs 93 new ICU admissions; +2%). France and Malaysia reported increasing ICU admissions for three and four consecutive weeks, respectively.

Figure 4. COVID-19 cases, deaths, hospital, and ICU admissions reported weekly to WHO, as of 27 November 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 [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 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.

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