COVID-19 Weekly Epidemiological Update

Edition 127 published 25 January 2023

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- WHO regional overviews
- Hospitalizations and ICU admissions

Global overview
Data as of 22 January 2023

Globally, nearly 1.9 million new cases and over 12 000 deaths were reported in the week of 16 to 22 January 2023 (Figure 1, Table 1). In the last 28 days (26 December 2022 to 22 January 2023), over 11 million cases and over 55 000 new deaths were reported globally – a decrease of 25% and an increase of 13%, respectively, compared to the previous 28 days. Since early December, reported deaths have been increasing and the reported deaths do not yet include the 72 596 COVID-19 related hospital deaths announced by China (excluding Hong Kong special administrative region (SAR), Macao SAR, and Taiwan) for the period of 8 December 2022 to 19 January 2023\(^1\),\(^2\), as we await detailed data disaggregated by week of reporting. As of 22 January 2023, over 664 million confirmed cases and over 6.7 million deaths have been reported globally. Additional information about the COVID-19 situation in China is presented in Annex 2.

Weekly and monthly trends need to be interpreted carefully considering the reduction in testing and delays in reporting in many countries during recent holidays. Therefore, data presented in this report, especially for the most recent weeks, are incomplete, and any decreasing trends may change as updated information is incorporated.

Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 22 January 2023**

Note: Figure 1 does not yet include 72 596 COVID-19-related hospital deaths announced by China (excluding Hong Kong SAR, Macao SAR, and Taiwan) for the period of 8 December 2022 to 19 January 2023.

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

1 http://www.nhc.gov.cn/xcs/s3574/202301/a68301ee500b436b989ec5be2a35cad2.shtml

2 https://www.chinacdc.cn/jkzt/crb/zl/szkb_11803/jszl_13141/202301/t20230125_263519.html
At the regional level, the number of newly reported weekly cases decreased across five of the six WHO regions: the African Region (-41%), the Western Pacific Region (-39%), the European Region (-33%), the South-East Asia Region (-24%), and the Region of the Americas (-21%); while case numbers increased in one WHO region: the Eastern Mediterranean Region (+54%). The number of newly reported weekly deaths decreased or remained stable across five regions: the African Region (-65%), the European Region (-42%), the Western Pacific Region (-16%), the South-East Asia Region (-12%), and the Region of the Americas (+1%); while death numbers increased in the Eastern Mediterranean Region (+24%).

At the country level, the highest numbers of new weekly cases were reported from Japan (672,526 new cases; -34%), the United States of America (323,721 new cases; -25%), the Republic of Korea (192,638 new cases; -33%), China (142,066 new cases; -25%), and Brazil (114,916 new cases; -5%). The highest numbers of new weekly deaths were reported from the United States of America (3922 new deaths; -8%), Japan (2779 new deaths; -2%), Brazil (952 new deaths; +108%), China (617 new deaths; -23%), and Spain (424 new deaths; +21%).

Current trends in reported COVID-19 cases are underestimates of the true number of global infections and reinfections as shown by prevalence surveys. 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 22 January 2023**

<table>
<thead>
<tr>
<th>WHO Region</th>
<th>New cases in last 7 days (%)</th>
<th>Change in new cases in last 7 days *</th>
<th>New cases in last 28 days (%)</th>
<th>Change in new cases in last 28 days *</th>
<th>Cumulative cases (%)</th>
<th>New deaths in last 7 days (%)</th>
<th>Change in new deaths in last 7 days *</th>
<th>New deaths in last 28 days (%)</th>
<th>Change in new deaths in last 28 days *</th>
<th>Cumulative deaths (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Pacific</td>
<td>1,063,388 (56%)</td>
<td>-39%</td>
<td>6,262,250 (57%)</td>
<td>-6%</td>
<td>111,374,411 (17%)</td>
<td>4,165 (33%)</td>
<td>-16%</td>
<td>15,825 (29%)</td>
<td>50%</td>
<td>309,133 (5%)</td>
</tr>
<tr>
<td>Americas</td>
<td>540,449 (29%)</td>
<td>-21%</td>
<td>2,847,592 (26%)</td>
<td>-21%</td>
<td>188,323,276 (28%)</td>
<td>5,857 (46%)</td>
<td>1%</td>
<td>21,065 (38%)</td>
<td>20%</td>
<td>2,908,368 (43%)</td>
</tr>
<tr>
<td>Europe</td>
<td>264,653 (14%)</td>
<td>-33%</td>
<td>1,868,782 (17%)</td>
<td>-57%</td>
<td>271,295,532 (41%)</td>
<td>2,546 (20%)</td>
<td>-42%</td>
<td>17,430 (32%)</td>
<td>-8%</td>
<td>2,176,040 (32%)</td>
</tr>
<tr>
<td>Africa</td>
<td>4166 (&lt;1%)</td>
<td>-41%</td>
<td>23,914 (&lt;1%)</td>
<td>-36%</td>
<td>9,470,128 (1%)</td>
<td>7 (&lt;1%)</td>
<td>-65%</td>
<td>56 (&lt;1%)</td>
<td>-73%</td>
<td>175,183 (3%)</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>3683 (&lt;1%)</td>
<td>-24%</td>
<td>22,428 (&lt;1%)</td>
<td>-74%</td>
<td>60,752,516 (9%)</td>
<td>107 (1%)</td>
<td>-12%</td>
<td>539 (1%)</td>
<td>-61%</td>
<td>803,596 (12%)</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>6732 (&lt;1%)</td>
<td>54%</td>
<td>19,370 (&lt;1%)</td>
<td>-27%</td>
<td>23,238,015 (3%)</td>
<td>62 (&lt;1%)</td>
<td>24%</td>
<td>193 (&lt;1%)</td>
<td>23%</td>
<td>349,247 (5%)</td>
</tr>
<tr>
<td>Global</td>
<td>1,883,071 (100%)</td>
<td>-34%</td>
<td>11,044,336 (100%)</td>
<td>-25%</td>
<td>664,454,642 (100%)</td>
<td>12,744 (100%)</td>
<td>-17%</td>
<td>55,108 (100%)</td>
<td>13%</td>
<td>6,721,580 (100%)</td>
</tr>
</tbody>
</table>

*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

3 Data for the Western Pacific Region do not yet include 72,596 COVID-19-related hospital deaths announced by China (excluding Hong Kong SAR, Macao SAR, and Taiwan) for the period of 8 December 2022 to 19 January 2023
Figure 2. Percentage change in confirmed COVID-19 cases over the last seven days relative to the previous seven days, 16 to 22 January 2023**

**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, 16 to 22 January 2023**

Note: The map does not yet include 72,966 COVID-19-related hospital deaths announced by China (excluding Hong Kong SAR, Macao SAR, and Taiwan) for the period of 8 December 2022 to 19 January 2023.

**See Annex I: Data, table, and figure notes.
SARS-CoV-2 variants of concern and Omicron subvariants under monitoring

Geographic spread and prevalence

Globally, from 23 December 2022 to 23 January 2023, 78,505 SARS-CoV-2 sequences were shared through GISAID. Among these, 78,463 sequences were the Omicron variant of concern (VOC), accounting for over 99.9% of sequences reported globally in the past 30 days.

BA.5 and its descendent lineages are still dominant globally. In week 1 (2 to 8 January 2023) they accounted for 68.1% (with 12,000 sequences) of all submitted sequences to GISAID. The prevalence of BA.2 and its descendent lineages is rising, a trend based on 2824 sequences (16.0%) submitted globally in week 1, compared to 14.5% in week 52 (26 December 2022 to 1 January 2023, 4,685 sequences). The prevalence of recombinants remained stable, with 1,777 sequences (10.1%) submitted in week 1, compared to week 52 (3,472 sequences, 10.7%). BA.4 and its descendent lineages also remained stable, with a prevalence of 0.4% as of week 1, compared to 0.5% in week 52. Unassigned sequences (presumably Omicron) account for 5.4% of sequences submitted to GISAID in week 1.

WHO is currently tracking four Omicron descendent lineages closely. These variants are included on the basis of signals of transmission advantage relative to other circulating variants, and additional amino acid changes that are known or suspected to confer fitness advantage. The subvariants under monitoring are BF.7 (BA.5 + R346T mutation in spike), BQ.1* (and BQ.1.1, with BA.5 + R346T, K444T, N460K mutations in spike), BA.2.75* (including BA.2.75.2 and CH.1.1), and XBB* (including XBB.1.5), where * indicates all descendent lineages.

WHO, with advice from the Technical Advisory Group on Virus Evolution (TAG-VE), has updated the global rapid risk assessment for XBB.1.5 (see Annex 4). XBB.1.5 is a descendent lineage of XBB, which is a recombinant of two BA.2 descendent lineages. Globally, from 22 October 2022 to 23 January 2023, 8,931 sequences of the Omicron XBB.1.5 variant have been reported from 54 countries (excluding low coverage sequences). The majority of reported sequences are from the United States of America (75.0%). Other countries reporting XBB.1.5 include the United Kingdom (9.9%), Canada (3.0%), Denmark (2.0%), Germany (1.5%), Austria (1.3%) and Ireland (1.3%).

Compared to early January 2023 when WHO published the first rapid risk assessment of XBB.1.5, more countries have reported an increase in the prevalence of XBB.1.5. The XBB.1.5 variant has a growth advantage compared to other circulating Omicron descendent lineages, based on reports from the United States of America, the United Kingdom and the European Centre for Disease Prevention and Control (ECDC) assessing XBB.1.5 across a number of countries in Europe. Preliminary laboratory-based antibody escape studies indicate that XBB.1.5 has higher immune escape than Omicron descendent lineages prior to XBB in individuals vaccinated with three doses of mRNA vaccine, even though neutralization was restored by a bivalent booster.12 These findings remain to be confirmed in vaccine effectiveness studies. From reports by several countries, no early signal of increase in severity has been observed, however the number of cases associated with XBB.1.5 is still low so it is difficult to assess severity.

Additional resources

- Tracking SARS-CoV-2 Variants
- WHO rapid risk assessment of XBB.1.5, published on 11 January 2023
- TAG-VE statement on the situation in China, published on 3 January 2023
- 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 16 to 22 January 2023

African Region

The African Region reported over 4160 new cases, a 41% 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, with the highest proportional increases observed in Comoros (five new cases vs one new case; +400%), Côte d’Ivoire (five vs three new cases; +67%), and the Democratic Republic of the Congo (127 vs 90 new cases; +41%). The highest numbers of new cases were reported from South Africa (1740 new cases; 2.9 new cases per 100 000; +16%), Réunion (995 new cases; 111.1 new cases per 100 000; -18%), and Zambia (818 new cases; 4.4 new cases per 100 000; -60%).

The number of new weekly deaths in the region decreased by 65% as compared to the previous week, with seven new deaths reported. The highest numbers of new deaths were reported from Zambia (three new deaths; <1 new death per 100 000; -70%), and the Republic of the Congo (two new deaths; <1 new death per 100 000; no deaths reported the previous week).

Region of the Americas

The Region of the Americas reported over 540 000 new cases, a 21% decrease as compared to the previous week. Five (9%) 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 Paraguay (4045 vs 779 new cases; +419%), Venezuela (Bolivarian Republic of) (323 vs 165 new cases; +96%), and Curaçao (21 vs 11 new cases; +91%). The highest numbers of new cases were reported from the United States of America (323 721 new cases; 97.8 new cases per 100 000; -25%), Brazil (114 916 new cases; 54.1 new cases per 100 000; -5%), and Mexico (20 226 new cases; 15.7 new cases per 100 000; -26%).

The number of new weekly deaths in the region remained stable (+1%) as compared to the previous week, with 5857 new deaths reported. The highest numbers of new deaths were reported from the United States of America (3922 new deaths; 1.2 new deaths per 100 000; -8%), Brazil (952 new deaths; <1 new death per 100 000; +108%), and Canada (225 new deaths; <1 new death per 100 000; -23%).

Updates from the African Region

Updates from the Region of the Americas
Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 6730 new cases, a 54% increase as compared to the previous week. One (5%) of the 22 countries for which data are available reported an increase in new cases of 20% or greater: Libya (four new cases vs one new case; +300%). The highest numbers of new cases were reported from Lebanon (1490 new cases; 21.8 new cases per 100 000; -3%), the Islamic Republic of Iran (778 new cases; <1 new case per 100 000; +13%), and Saudi Arabia (206 new cases; <1 new case per 100 000; +13%).

The number of new weekly deaths in the region increased by 24% as compared to the previous week, with 62 new deaths reported. The highest numbers of new deaths were reported from Afghanistan (15 new deaths; <1 new death per 100 000; +275%), Lebanon (13 new deaths; <1 new death per 100 000; +86%), and Saudi Arabia (13 new deaths; <1 new death per 100 000; similar to the previous week).

European Region

The European Region reported over 264 000 new cases, a 33% decrease as compared to the previous week. Two (3%) of the 61 countries for which data are available reported increases in new cases of 20% or greater: the Russian Federation (37 544 vs 29 631 new cases; +27%) and the Republic of Moldova (382 vs 302 new cases; +26%). The highest numbers of new cases were reported from Germany (57 439 new cases; 69.1 new cases per 100 000; -36%), the Russian Federation (37 544 new cases; 25.7 new cases per 100 000; +27%), and Italy (34 742 new cases; 58.3 new cases per 100 000; -56%).

The number of new weekly deaths in the region decreased by 42% as compared to the previous week, with 2546 new deaths reported. The highest numbers of new deaths were reported from Spain (424 new deaths; <1 new death per 100 000; +21%), France (373 new deaths; <1 new death per 100 000; -31%), and Italy (330 new deaths; <1 new death per 100 000; -47%).

Updates from the Eastern Mediterranean Region

Updates from the European Region
South-East Asia Region

The South-East Asia Region reported over 3680 new cases, a 24% 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: Timor-Leste (five vs two new cases; +150%) and Myanmar (51 vs 33 new cases; +55%). The highest numbers of new cases were reported from Indonesia (1979 new cases; <1 new case per 100 000; -22%), India (881 new cases; <1 new case per 100 000; -21%), and Thailand (627 new cases; <1 new case per 100 000; -35%).

The number of new weekly deaths in the region decreased by 12% as compared to the previous week, with 107 new deaths reported. The highest numbers of new deaths were reported from Indonesia (54 new deaths; <1 new death per 100 000; +23%), Thailand (44 new deaths; <1 new death per 100 000; -32%), and India (seven new deaths; <1 new death per 100 000; +17%).

Updates from the South-East Asia Region

Western Pacific Region

The Western Pacific Region reported over one million new cases, a 39% decrease as compared to the previous week. One (3%) of the 35 countries for which data are available reported an increase in new cases of 20% or greater: Palau (six vs four new cases; +50%). The highest numbers of new cases were reported from Japan (672 526 new cases; 531.7 new cases per 100 000; -34%), the Republic of Korea (192 638 new cases; 375.7 new cases per 100 000; -33%), and China (142 066 new cases; 9.7 new cases per 100 000; -25%).

The number of new weekly deaths in the region decreased by 16% as compared to the previous week, with 4165 new deaths reported. The highest numbers of new deaths were reported from Japan (2779 new deaths; 2.2 new deaths per 100 000; -2%), China (617 new deaths; <1 new death per 100 000; -23%), and Australia (310 new deaths; 1.2 new deaths per 100 000; -58%).

The figure below does not yet include 72 596 COVID-19-related hospital deaths announced by China (excluding Hong Kong special administrative region (SAR), Macao SAR, and Taiwan) for the period of 8 December 2022 to 19 January 2023.

Updates from the Western Pacific Region
Hospitalizations and ICU admissions

At the global level, during epidemiological week 2 (9 to 15 January 2023), a total of 15,062 new hospitalizations and 880 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 2, 30 (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 (17 countries; 28%) followed by the Eastern Mediterranean Region (three countries; 14%), the South-East Asia Region (one country; 9%), the Western Pacific Region (three countries; 9%), the African Region (three countries; 6%), and the Region of the Americas (three countries; 5%).

Across the six WHO regions, in week 2, a total of 23 (10%) 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 (five countries; 23%), the Western Pacific Region (two countries; 6%), the Region of the Americas (two countries; 4%), and the African Region (one country; 2%). So far, no country in the South-East Asia Region has reported data on new ICU admissions during week 2.

Among the 17 countries that reported more than 50 new hospitalizations, three countries showed an increasing trend compared to the previous week: Ukraine (2406 vs 1600 new hospitalizations; +50%), Belgium (1400 vs 1285 new hospitalizations; +9%), and Greece (1748 vs 1632 new hospitalizations; +7%).

Among the 12 countries that reported more than 10 new ICU admissions, three countries showed an increasing trend compared to the previous week: Mexico (19 vs 11 new ICU admissions; +73%), Greece (63 vs 51 new ICU admissions; +24%), and Ireland (11 vs nine new ICU admissions; +22%).

Figure 4. COVID-19 cases, deaths, hospitalizations, and ICU admissions reported weekly to WHO, as of 15 January 2023

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.


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.

On 25 January, the Chinese Center for Disease Control and Prevention issued an update on the COVID-19 situation in the country (all subsequent references to China exclude Hong Kong SAR, Macao SAR, and Taiwan). Below is a summary of what was reported. WHO has not yet conducted an independent analysis of the COVID-19 pandemic situation in China as we do not have access to the data underpinning this overview.

Consultations at fever clinics: Using proxy indicators to assess the burden of COVID-19, health authorities in China report that they have been monitoring outpatient visits to fever clinics set up in primary and secondary health care facilities across the country. Consultations in fever clinics reached a peak of 2.867 million visits on 22 December 2022, and have since been declining in both rural and urban areas to 63 000 (97.8% from the peak) on 23 January 2023 (Figure 5).

![Figure 5. Trend in the number of daily fever clinic visits in China from 9 December 2022 to 23 January 2023.](image)

COVID-19 hospitalizations: According to the analysis released by China, the number of COVID-19 hospitalizations reached a nationwide peak of 1.625 million on 5 January 2023 and has been steadily declining over the last month to 248 000 (85% decrease from the peak) on 23 January (Figure 6). Furthermore, from 27 December 2022 to 3 January 2023, the number of newly hospitalized SARS-CoV-2 positive patients classified as ‘severe’ increased rapidly, and reached a peak of 128 000 on 5 January. The number of severe COVID-19 patients has decreased to 36 000 (72% decrease from the peak) on 23 January 2023.

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4 China CDC
COVID-19-related deaths: In the update, health authorities in China state that the number of new daily COVID-19-related deaths in hospitals reached a peak of 4273 on 4 January 2023, and steadily declined to 896 (79% decrease from the peak) on 23 January (Figure 7). From 13 to 19 January, there were 12,658 new COVID-19 related deaths (681 deaths caused by respiratory failure due to COVID-19).

SARS-CoV-2 variants: According to the update from Chinese authorities, from 26 September 2022 to 23 January 2023, 18,906 sequences were analyzed across the country. The prevalence of subvariants is shown in Figure 8. BA.5.2 (70.8%) and BF.7 (23.4%) were the most common circulating subvariants. Regarding regional differences, based on available data, BF.7 is the dominant in Beijing and Tianjin, and BA.5.2 is the dominant in most other provinces.

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4 China CDC
COVID-19 vaccination: As of 20 January 2023, Chinese authorities report that 3.488 billion doses of COVID-19 vaccines had been administered in the country. About 90.5% of the population has received the primary series of COVID-19 vaccines. Additionally, among the population over 60 years, 92% of those who completed the primary vaccination series have also received a booster dose. No information is available on the percentage of the whole population over 60 who have completed the primary vaccination series or received a booster dose.

Figure 9. Monthly trend in COVID-19 vaccination coverage for the first dose and full primary vaccination series in China from December 2020 to January 2023.\textsuperscript{4}
Annex 3. 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.\(^5\)
Annex 4. XBB.1.5 rapid risk assessment, 25 January 2023

Following a TAG-VE meeting on 23 January 2023, the WHO has revised the confidence level of the risk assessment for XBB.1.5 from “Low” (assessed on 11 January 2023) to “Moderate” (25 January 2023), using additional reports from countries on prevalence and growth advantage, and laboratory-based studies.

XBB.1.5 is descendent lineage of XBB, which is a recombinant of two BA.2 descendent lineages. From 22 October 2022 to 23 January 2023, 8931 sequences of the Omicron XBB.1.5 variant have been reported from 54 countries (excluding low coverage sequences). Most of these sequences are from the United States of America (75.0%); countries with a prevalence of >1% are the United Kingdom (9.9%), Canada (3.0%), Denmark (2.0%), Germany (1.5%), Ireland (1.3%) and Austria (1.3%).

Based on its genetic characteristics and growth rate estimates, XBB.1.5 is likely to contribute to increases in case incidence globally. There is moderate-strength evidence for increased risk of transmission and immune escape. From reports by several countries, no early signal of an increase in severity has been observed. The number of cases associated with XBB.1.5 is still low and thus severity cannot yet be confidently assessed. Taken together, XBB.1.5 does not appear to have additional public health risk relative to the other Omicron descendent lineages.

WHO and the TAG-VE recommend Member States prioritize the following studies to better address uncertainties relating to the growth advantage, antibody escape, and severity of XBB.1.5. The suggested timelines are indicative and will vary from one country to another based on national capacities:

- Neutralization assays using human sera representative of the affected community(ies) and XBB.1.5 live virus isolates (2-4 weeks)
- Comparative assessment to detect changes in rolling or ad hoc indicators of severity (see table below, 4-12 weeks)
The rapid risk assessment below is based on currently available evidence and will be revised regularly as more evidence and data from additional countries become available.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Confidence in the assessment</th>
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<tbody>
<tr>
<td><strong>Growth advantage</strong></td>
<td></td>
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<tr>
<td>In the United States of America, XBB1.5 is increasing in many regions (the prevalence of XBB.1.5 in some regions is predicted to be 80%, while in others, 20-50%). In the United Kingdom, growth advantage relative to BQ.1.1 was estimated to 38.9%, with high uncertainty due to the small number of sequenced XBB.1.5 cases. Further, the ECDC has reported growth of XBB.1.5 in several countries, including Iceland where it has increased to 8.7% in week 2 of 2023.</td>
<td>Moderate</td>
</tr>
<tr>
<td>In addition, <em>in silico</em> analysis reported that the mutation S:F486S (present in XBB.1) abrogated the local hydrophobic interaction with ACE-2 while 486P (present in XBB.1.5) restored it. The amino acid change to 486P contributes to higher ACE-2 binding affinity, and suggests a mechanism for XBB.1.5 to have a higher growth advantage as compared to its parent lineage XBB.1.</td>
<td></td>
</tr>
<tr>
<td><strong>Antibody escape</strong></td>
<td></td>
</tr>
<tr>
<td>Using pseudotyped virus neutralization assays, XBB.1.5 is shown to be as immune evasive as XBB.1, one of the Omicron subvariants with the highest immune escape to date. Antibody titers against XBB.1 were mostly absent in individuals with a history of vaccination with the index vaccine (2-4 doses), were higher in those who recently received a bivalent (BA.5) vaccine booster, and highest in individuals with hybrid immunity.</td>
<td>Moderate</td>
</tr>
<tr>
<td>There are currently no data on real world vaccine effectiveness against severe disease or death.</td>
<td></td>
</tr>
<tr>
<td><strong>Severity and clinical considerations</strong></td>
<td></td>
</tr>
<tr>
<td>Severity assessments in human populations are ongoing. The number of cases associated with XBB.1.5 is still low and thus clinical severity cannot yet be confidently assessed.</td>
<td>Low</td>
</tr>
<tr>
<td>XBB.1.5 does not carry any known mutation(s) associated with potential changes in severity (such as S:P681R).</td>
<td></td>
</tr>
<tr>
<td><strong>Risk assessment</strong></td>
<td></td>
</tr>
<tr>
<td>Based on its genetic characteristics and growth rate estimates, XBB.1.5 is likely to contribute to increases in case incidence globally. There is moderate-strength evidence for increased risk of transmission and immune escape. From reports of several countries, no early signals of an increase in severity have been observed. The number of cases associated with XBB.1.5 is still low and thus severity cannot yet be confidently assessed. Taken together, available information does not suggest that XBB.1.5 has additional public health risks relative to the other currently circulating Omicron descendant lineages.</td>
<td></td>
</tr>
</tbody>
</table>
### Risk assessment framework and indicators used to assess risk and confidence given available evidence

<table>
<thead>
<tr>
<th></th>
<th>Rapid indicators: 0-4 weeks</th>
<th>Confidence in the assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Growth advantage</strong></td>
<td>Evidence of a growth advantage likely to lead to global predominance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. An increase in variant specific Rt</td>
<td>All data derived from one country</td>
</tr>
<tr>
<td></td>
<td>B. Logistic growth (compared to currently circulating variant)</td>
<td>At least two models; data from two countries not linked by close travel</td>
</tr>
<tr>
<td></td>
<td>(Nb variants with subnational-limited growth are not assessed)</td>
<td>At least two models and at least three countries in three regions, over more than two weeks</td>
</tr>
<tr>
<td><strong>Immune escape</strong></td>
<td>• Genomic (predictive) and structural biology assessment</td>
<td>One indicator (reinfection, neutralization or structural model)</td>
</tr>
<tr>
<td></td>
<td>• Pseudovirus neutralization using vaccinee sera or pre-banked population serosurveys</td>
<td>Two indicators including neutralization data</td>
</tr>
<tr>
<td></td>
<td>• Reinfection rate through a cohort study or surveillance system</td>
<td>[rapid VE]</td>
</tr>
<tr>
<td></td>
<td>• Signals from outbreak investigations (Rapid VE is unlikely by 28 days so the rapid RA cannot reach high confidence)</td>
<td></td>
</tr>
<tr>
<td><strong>Severity and clinical considerations</strong></td>
<td>• Change in a rolling surveillance metric for severity synchronized with increase in variant e.g.</td>
<td>One metric, one country</td>
</tr>
<tr>
<td></td>
<td>• Infection hospitalization ratio</td>
<td>Multiple metrics, one country OR same method in multiple countries</td>
</tr>
<tr>
<td></td>
<td>• Indicators from sentinel hospital network (e.g. surveillance of severe acute respiratory infections)</td>
<td>Multiple metrics, multiple countries in multiple regions</td>
</tr>
<tr>
<td></td>
<td>• Comparison of admission trends with previous variants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Change in the demographic profile of who is admitted to hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Change in clinical phenotype</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Major tests/therapeutics issues</td>
<td></td>
</tr>
<tr>
<td><strong>Risk assessment</strong></td>
<td>Including overall view of threat in the wider context, confidence level in the assessment, and identification of urgent priority work.</td>
<td></td>
</tr>
</tbody>
</table>
References


7. UKHSA. Technical Briefing 49. SARS-CoV-2 variants of concern and variants under investigation: technical briefing 49 (publishing.service.gov.uk)


COVID-19 Weekly Epidemiological Update
Edition 126 published 19 January 2023

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 15 January 2023

Globally, nearly 2.8 million new cases and over 13 000 deaths were reported in the week of 9 to 15 January 2023 (Figure 1, Table 1). In the last 28 days (19 December 2022 to 15 January 2023), nearly 13 million cases and almost 53 000 new deaths were reported globally – a decrease of 7% and an increase of 20%, respectively, compared to the previous 28 days. As of 15 January 2023, over 662 million confirmed cases and over 6.7 million deaths have been reported globally.

Weekly and monthly trends need to be interpreted carefully considering the reduction in testing and delays in reporting in many countries during the year-end holiday season. Therefore, data presented in this report, especially for the most recent weeks, are incomplete, and any decreasing trends may change as updated information is incorporated.

This update includes cases and deaths reported by China through the International Health Regulations as of 15 January 2023. It does not include the 59 938 COVID-19 related deaths announced by China for the period of 8 December 2022 to 12 January 2023 as we await detailed provincial data disaggregated by week of reporting. Additional information about the COVID-19 situation in China is presented in Annex 3.

Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 15 January 2023**

Note: Figure 1 does not yet include 59 938 COVID-19 related deaths announced by China for the period of 8 December 2022 to 12 January 2023.

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

1 http://www.nhc.gov.cn/xcs/s3574/202301/a68301ee500b436b989ec5be2a35cad2.shtml
At the regional level, the number of newly reported weekly cases decreased or remained stable across five of the WHO regions: the African Region (-40%), the European Region (-35%), the South-East Asia Region (-17%), the Region of the Americas (-12%), and the Western Pacific Region (similar to the previous week); while case numbers increased in one WHO region: the Eastern Mediterranean Region (+6%). The number of newly reported weekly deaths increased across three regions: the Western Pacific Region (+43%), the Region of the Americas (+10%), and the Eastern Mediterranean Region (+9%); while death numbers decreased or remained stable in three WHO regions: the European Region (-40%), the South-East Asia Region (-13%), and the African Region (similar to the previous week).

At the country level, the highest numbers of new weekly cases were reported from Japan (1,025,321 new cases; -4%), the United States of America (415,864 new cases; -10%), the Republic of Korea (286,291 new cases; -29%), Australia (191,750; no cases reported in the previous three weeks), and China (190,451 new cases; -26%). The highest numbers of new weekly deaths were reported from the United States of America (3,922 new deaths; +46%), Japan (2,849 new deaths; +33%), China (802 new deaths; +3%), Australia (742; no deaths reported in the previous three weeks), and France (520 new deaths; -35%).

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 15 January 2023**

<table>
<thead>
<tr>
<th>WHO Region</th>
<th>New cases in last 7 days (%)</th>
<th>Change in new cases in last 7 days *</th>
<th>New cases in last 28 days (%)</th>
<th>Change in new cases in last 28 days *</th>
<th>Cumulative cases (%)</th>
<th>New deaths in last 7 days (%)</th>
<th>Change in new deaths in last 7 days *</th>
<th>New deaths in last 28 days (%)</th>
<th>Change in new deaths in last 28 days *</th>
<th>Cumulative deaths (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Pacific</td>
<td>1,746,093 (63%)</td>
<td>&lt;1%</td>
<td>7,100,104 (55%)</td>
<td>13%</td>
<td>110,311,033 (17%)</td>
<td>4,938 (38%)</td>
<td>43%</td>
<td>14,679 (28%)</td>
<td>52%</td>
<td>304,968 (5%)</td>
</tr>
<tr>
<td>Americas</td>
<td>683,564 (25%)</td>
<td>-12%</td>
<td>3,298,569 (26%)</td>
<td>5%</td>
<td>187,758,550 (28%)</td>
<td>4,978 (39%)</td>
<td>10%</td>
<td>19,091 (36%)</td>
<td>18%</td>
<td>2,901,031 (43%)</td>
</tr>
<tr>
<td>Europe</td>
<td>311,592 (11%)</td>
<td>-35%</td>
<td>2,452,965 (19%)</td>
<td>-43%</td>
<td>270,884,416 (41%)</td>
<td>2,826 (22%)</td>
<td>-40%</td>
<td>18,301 (35%)</td>
<td>10%</td>
<td>2,170,609 (32%)</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>4,852 (&lt;1%)</td>
<td>-17%</td>
<td>29,558 (&lt;1%)</td>
<td>-77%</td>
<td>60,748,827 (9%)</td>
<td>121 (1%)</td>
<td>-13%</td>
<td>685 (1%)</td>
<td>-56%</td>
<td>803,489 (12%)</td>
</tr>
<tr>
<td>Africa</td>
<td>3975 (&lt;1%)</td>
<td>-40%</td>
<td>26,170 (&lt;1%)</td>
<td>-35%</td>
<td>9,462,625 (1%)</td>
<td>10 (&lt;1%)</td>
<td>&lt;1%</td>
<td>57 (&lt;1%)</td>
<td>-76%</td>
<td>175,165 (3%)</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>4,369 (&lt;1%)</td>
<td>6%</td>
<td>17,585 (&lt;1%)</td>
<td>-41%</td>
<td>23,231,283 (4%)</td>
<td>50 (&lt;1%)</td>
<td>9%</td>
<td>174 (&lt;1%)</td>
<td>12%</td>
<td>349,185 (5%)</td>
</tr>
<tr>
<td>Global</td>
<td>2,754,445 (100%)</td>
<td>-9%</td>
<td>12,924,951 (100%)</td>
<td>-7%</td>
<td>662,397,498 (100%)</td>
<td>12,923 (100%)</td>
<td>&lt;1%</td>
<td>52,987 (100%)</td>
<td>20%</td>
<td>6,704,460 (100%)</td>
</tr>
</tbody>
</table>

*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.

Table does not yet include 59,938 COVID-19 related deaths announced by China for the period of 8 December 2022 to 12 January 2023.

**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, 9 to 15 January 2023**

**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, 9 to 15 January 2023**

**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 16 December 2022 to 16 January 2023, 85 489 SARS-CoV-2 sequences were shared through GISAID. Among these, 85 461 sequences were the Omicron variant of concern (VOC), accounting for 99.9% of sequences reported in the past 30 days.

BA.5 and its descendent lineages are still dominant globally, with 13 684 sequences (70.5%) submitted to GISAID in week 52 (26 December to 1 January 2023) (Figure 4, Table 2). The prevalence of BA.2 and its descendent lineages is rising, a trend based on 3055 sequences (15.7%) submitted in week 52, compared to 11.8% in week 51 (19 to 25 December 2022, 4051 sequences). The prevalence of recombinants remained stable, with 1965 sequences (10.1%) submitted in week 52, compared to week 51 (3336 sequences, 9.7%). BA.4 and its descendent lineages continue to decline, with a prevalence of 0.6% in week 52. Unassigned sequences (presumably Omicron) account for 3.0% of sequences submitted to GISAID in week 52.

WHO is currently tracking four subvariants under monitoring (Table 2). These variants are included on the basis of their signals of transmission advantage relative to other circulating VOC lineages, and additional amino acid changes that are known or suspected to confer fitness advantage. The subvariants under monitoring are BF.7 (BA.5 + R346T mutation in spike), BQ.1 (and BQ.1.1, with BA.5 + R346T, K444T, N460K mutations in spike), BA.2.75 (including BA.2.75.2 and CH.1.1), and XBB (including XBB.1.5).

Compared to their parent lineages, laboratory evidence shows enhanced neutralization resistance of descendant lineages BQ.1, BQ.1.1, BF.7 and BA.2.75.2 to sera from vaccinated and SARS-CoV-2-infected participants. Of these, BA.2.75.2 showed the most substantial neutralization resistance, driven by the F486S mutation, while the neutralization resistance of BQ.1 and BQ.1.1 was driven largely by the N460K mutation.5-7 BA.2.75.2 and BQ.1.1 showed a decline (35 and 50-fold drop in titers, respectively) relative to the ancestral strain in 55 vaccinated individuals.8 Additionally, in individuals who had BA.5.1.2, BA.2.76 or BF.7 breakthrough infections, a study found significantly decreased neutralization activity against BQ.1 and BQ.1.1 compared to BA.1, BA.2, BA.2.75, BA.4, BA.5 and BF.7.9 Additional data on XBB.1.5 besides those previously reported 10 are not yet available. Variant dynamics differ by WHO regions, and within regions among countries, due to a variety of factors including vaccination coverage and public health and social measures. These variants continue to be monitored for indicators of a rise in transmission and clinical severity.
**Table 2. Omicron subvariants under monitoring, as of 16 January 2023**

<table>
<thead>
<tr>
<th>PANGO lineage*</th>
<th>GISAID clade</th>
<th>Next strain clade</th>
<th>Relationship to circulating VOC lineages</th>
<th>Spike genetic features</th>
<th>Earliest documented samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>BF.7*</td>
<td>GRA</td>
<td>22B</td>
<td>BA.5 sublineage</td>
<td>BA.5 + S:R346T</td>
<td>24-01-2022</td>
</tr>
<tr>
<td>BQ.1§</td>
<td>GRA</td>
<td>22E</td>
<td>BA.5 sublineage</td>
<td>BQ.1 and BQ.1.1: BA.5 + S:R346T, S:K444T, S:N460K</td>
<td>07-02-2022</td>
</tr>
</tbody>
</table>

* includes descendent lineages

* additional mutations outside of the spike protein: N: G30-, S33F, ORF9b: M26-, A29I, V30L

§ additional mutation outside the spike protein: ORF1a: Q556K, L3829F, ORF1b: Y264H, M1156I, N1191S, N: E136D, ORF9b: P10F

µ additional mutations outside of the spike protein: ORF1a: K47R, ORF1b: G662S, S959P, E: T11A

µ additional mutations outside of the spike protein: ORF1a: K47R, ORF1b: G662S, S959P, E: T11A, ORF8: G8*
Figure 4. Panel A and B: The number and percentage of SARS-CoV-2 sequences, from 1 July 2022 to 5 January 2023

Figure 4 Panel A shows the number, and Panel B the percentage, of all circulating variants since July 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 July 2022 to 5 January 2023.
Table 3. Relative proportions of SARS-CoV-2 sequences from 21 November 2022 to 1 January 2023, by specimen collection date

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BA.1*</td>
<td>186</td>
<td>2 219 657</td>
<td>0.02</td>
<td>0.01</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>BA.2*</td>
<td>174</td>
<td>2 048 278</td>
<td>0.27</td>
<td>0.31</td>
<td>0.29</td>
<td>0.27</td>
<td>0.32</td>
<td>0.33</td>
</tr>
<tr>
<td>BA.3*</td>
<td>34</td>
<td>816</td>
<td>0.01</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA.4*</td>
<td>136</td>
<td>119 967</td>
<td>0.14</td>
<td>0.11</td>
<td>0.14</td>
<td>0.07</td>
<td>0.10</td>
<td>0.16</td>
</tr>
<tr>
<td>BA.5*</td>
<td>156</td>
<td>1 358 002</td>
<td>18.76</td>
<td>14.97</td>
<td>12.30</td>
<td>8.08</td>
<td>5.93</td>
<td>4.02</td>
</tr>
<tr>
<td>BA.2.75*</td>
<td>96</td>
<td>43 201</td>
<td>4.62</td>
<td>3.64</td>
<td>2.31</td>
<td>1.59</td>
<td>1.24</td>
<td>1.11</td>
</tr>
<tr>
<td>BA.5 + 5 mutations</td>
<td>131</td>
<td>167 661</td>
<td>14.46</td>
<td>13.41</td>
<td>12.39</td>
<td>11.46</td>
<td>9.82</td>
<td>8.84</td>
</tr>
<tr>
<td>BA.4.6*</td>
<td>98</td>
<td>54 353</td>
<td>1.19</td>
<td>0.96</td>
<td>0.75</td>
<td>0.60</td>
<td>0.40</td>
<td>0.40</td>
</tr>
<tr>
<td>XBB*</td>
<td>87</td>
<td>36 348</td>
<td>6.24</td>
<td>6.60</td>
<td>6.40</td>
<td>6.72</td>
<td>8.47</td>
<td>8.36</td>
</tr>
<tr>
<td>BQ.1*</td>
<td>110</td>
<td>241 634</td>
<td>40.53</td>
<td>45.08</td>
<td>48.78</td>
<td>53.18</td>
<td>55.09</td>
<td>54.37</td>
</tr>
<tr>
<td>Unassigned</td>
<td>91</td>
<td>125 076</td>
<td>2.86</td>
<td>3.20</td>
<td>2.69</td>
<td>2.43</td>
<td>3.28</td>
<td>3.02</td>
</tr>
<tr>
<td>Other</td>
<td>207</td>
<td>6 744 067</td>
<td>10.71</td>
<td>11.56</td>
<td>13.77</td>
<td>15.47</td>
<td>15.22</td>
<td>19.33</td>
</tr>
</tbody>
</table>

Table 3 shows the number of countries reporting the highlighted lineages, the total number of sequences reported and the prevalence of the lineages for the last six 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 descendant 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 16 January 2023. Proportions are shown as percent.

Additional resources
- Tracking SARS-CoV-2 Variants
- XBB.1.5 Rapid Risk Assessment, 11 January 2023
- TAG-VE statement on the situation in China, published on 3 January 2023
- 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
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 and updated regularly (last updated 13 January 2023). 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 those vaccines where data is available
- Vaccine effectiveness for various sub-populations of interest
- Absolute and relative vaccine effectiveness of a second booster dose (for more information on interpreting relative vaccine effectiveness, see the special focus from the 29 June 2022 Weekly Epidemiological Update)
- Duration of vaccine effectiveness over time for vaccines with available data.

In summary, findings from vaccine effectiveness studies show reduced VE of COVID-19 primary series vaccines against the Omicron variant for all outcomes (severe disease, symptomatic disease, and infection) compared to those that have been observed for the original SARS-CoV-2 strain and the four previous VOCs. Importantly though, VE estimates against the Omicron variant remain higher for severe disease than the other outcomes for Omicron. VE of primary series vaccination against symptomatic disease and infection decreased rapidly over time. First booster vaccination, regardless of the vaccine used in the primary series, substantially improves VE for all outcomes with VE declining more in the first six months after the first booster vaccination for symptomatic disease and infection than it does for severe disease. VE of a second booster dose with an mRNA vaccine showed similar patterns of improved VE followed by waning as after first booster dose.

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 sub-variants, 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 (last updated 9 January 2023).

The totality of the evidence to date suggests that neutralizing antibody response of first booster vaccination against Omicron BA.1 is approximately six-fold lower compared to the ancestral strain, which is a greater reduction than observed with previous VOCs. In addition, the median fold-reduction in geometric mean titers was two times lower for BA.4/BA.5 relative to BA.1. Early evidence suggests even further reductions of neutralization capacity against the new subvariants BQ.1/BQ.1.1 and XBB/XBB.1. Primary series neutralization against Omicron (without a booster) was too poor to enable accurate comparisons fold reductions for subvariants.
WHO regional overviews:
Epidemiological week 9 to 15 January 2023

African Region

The African Region reported over 3970 new cases, a 40% 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: Malawi (68 vs three new cases; +2167%), Ghana (18 vs five new cases; +260%), and Cabo Verde (13 vs seven new cases; +86%). The highest numbers of new cases were reported from Réunion (1213 new cases; 135.5 new cases per 100 000; -42%), Zambia (1063 new cases; 5.8 new cases per 100 000; no case reported the previous week), and South Africa (772 new cases; 1.3 new cases per 100 000; -55%).

The number of new weekly deaths in the region remained stable as compared to the previous week, with 10 new deaths reported. The highest numbers of new deaths were reported from Réunion (four new deaths; <1 new death per 100 000; similar to the previous week), Zambia (four new deaths; <1 new death per 100 000; no deaths reported the previous week), 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 683 000 new cases, a 12% decrease as compared to the previous week. Five (9%) of the 56 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 United States Virgin Islands (201 vs 50 new cases; +302%), Jamaica (141 vs 36 new cases; +292%), and Trinidad and Tobago (406 vs 246 new cases; +65%). Some of the highest numbers of new cases were reported from the United States of America (415 864 new cases; 125.6 new cases per 100 000; -10%), Brazil (120 721 new cases; 56.8 new cases per 100 000; -17%), and Mexico (25 609 vs 24 561 new cases; 19.9 new cases per 100 000; +4%).

The number of new weekly deaths in the region increased by 10% as compared to the previous week, with 4978 new deaths reported. The highest numbers of new deaths were reported from the United States of America (3922 new deaths; 1.2 new deaths per 100 000; +46%), Brazil (457 new deaths; <1 new death per 100 000; +22%), and Mexico (194 new deaths; <1 new death per 100 000; +126%).

Updates from the Region of the Americas
Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 4360 new cases, a 6% increase as compared to the previous week. Two (9%) of the 22 countries for which data are available reported increases in new cases of 20% or greater: Lebanon (1536 vs 907 new cases; +69%) and the United Arab Emirates (556 vs 456 new cases; +22%). The highest numbers of new cases were reported from Lebanon, Qatar (811 new cases; 28.1 new cases per 100 000; -24%), and the Islamic Republic of Iran (687 new cases; <1 new case per 100 000; +3%).

The number of new weekly deaths in the region increased by 9% as compared to the previous week, with 50 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (18 new deaths; <1 new death per 100 000; -14%), Saudi Arabia (13 new deaths; <1 new death per 100 000; +18%), and Lebanon (seven new deaths; <1 new death per 100 000; +17%).

European Region

The European Region reported over 311 000 new cases, a 35% decrease as compared to the previous week. Six (10%) 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 Spain (17 773 vs 9220 new cases; +93%), Albania (157 vs 113 new cases; +39%), and Montenegro (447 vs 329 new cases; +36%). The highest numbers of new cases were reported from Germany (83 605 new cases; 100.5 new cases per 100 000; -36%), Italy (62 599 new cases; 105 new cases per 100 000; -42%), and France (39 757 new cases; 61.1 new cases per 100 000; -52%).

The number of new weekly deaths in the region decreased by 40% as compared to the previous week, with 2826 new deaths reported. The highest numbers of new deaths were reported from France (520 new deaths; <1 new death per 100 000; -35%), Italy (461 new deaths; <1 new death per 100 000; -25%), and Spain (346 new deaths; <1 new death per 100 000; +9%).

Updates from the Eastern Mediterranean Region

Updates from the European Region
**South-East Asia Region**

The South-East Asia Region reported over 4850 new cases, a 17% 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: Bhutan (26 vs 13 new cases; +100%) and Nepal (29 vs 20 new cases; +45%). The highest numbers of new cases were reported from Indonesia (2540 new cases; <1 new case per 100 000; -25%), India (1116 new cases; <1 new case per 100 000; -12%), and Thailand (969 new cases; 1.4 new cases per 100 000; -3%).

The number of new weekly deaths in the region decreased by 13% as compared to the previous week, with 121 new deaths reported. The highest numbers of new deaths were reported from Thailand (65 new deaths; <1 new death per 100 000; +12%), Indonesia (44 new deaths; <1 new death per 100 000; -31%), and India (six new deaths; <1 new death per 100 000; -60%).

Updates from the South-East Asia Region

**Western Pacific Region**

The Western Pacific Region reported over 1.7 million new cases, which is similar to the number of cases reported during 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 Japan (1 025 321 new cases; 810.7 new cases per 100 000; -4%), the Republic of Korea (286 291 new cases; 558.4 new cases per 100 000; -29%), and Australia (191 750 new cases; 752 new cases per 100 000; no cases reported the previous three weeks).

The number of new weekly reported deaths in the region increased by 43% as compared to the previous week, with 4938 new deaths reported. The highest numbers of new deaths were reported from Japan (2849 new deaths; 2.3 new deaths per 100 000; +33%), China (802 new deaths; <1 new death per 100 000; +3%), and Australia (742 new deaths; 2.9 new deaths per 100 000; no death reported the previous three weeks). Additional information about the COVID-19 situation in China, including 59 938 COVID-19 related deaths announced by China for the period of 8 December 2022 to 12 January 2023 is presented in Annex 3. These deaths are not yet included in the figure below.

Updates from the Western Pacific Region
Hospitalizations and ICU admissions

At the global level, during epidemiological week 1 (02 to 08 January 2023), a total of 79,246 new hospitalizations and 1092 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 1, 28 (12%) 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 (14 countries; 23%) followed by the Region of the Americas (five countries; 9%), the Western Pacific Region (four countries; 11%), the South-East Asia Region (one country; 9%), the African Region (three countries; 6%), and the Eastern Mediterranean Region (one country; 5%).

Across the six WHO regions, in week 1, 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 European Region (16%; 10 countries) followed by the Western Pacific Region (four countries; 11%), the Region of the Americas (5%; three countries), and the Eastern Mediterranean Region (5%; one country). So far, no country in the South-East Asia Region the African Region, or Western Pacific Region has reported data on new ICU admissions during week 1.

Among the 16 countries that reported more than 50 new hospitalizations, three countries showed an increasing trend compared to the previous week: China (63,307 vs 37,215 new hospitalizations; +70%), Ireland (558 vs 510 new hospitalizations; +9%), Greece (1632 vs 1519 new hospitalizations; +7%).

Among the nine countries that reported more than 10 new ICU admissions, one country showed an increasing trend compared to the previous week: Latvia (17 vs 11 new ICU admissions; +55%).

Figure 5. COVID-19 cases, deaths, hospitalizations, and ICU admissions reported weekly to WHO, as of 8 January 2023

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.


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.¹¹

On 14 January, China’s Joint Prevention and Control Mechanism of the State Council issued an overview of the COVID-19 situation in the country. Below is a summary of what was reported. WHO has not yet conducted an independent analysis of the COVID-19 pandemic situation in China as we do not have access to the data underpinning this overview.

A report on the COVID-19 situation in China, shared during a press conference held on 14 January 2023 by China’s Joint Prevention and Control Mechanism of the State Council, reported that from 8 December 2022 to 12 January 2023, 59,938 hospital deaths related to COVID-19 occurred in healthcare facilities across the country. Among them, 5,503 were caused by respiratory failure due to COVID-19. The average age of the fatal cases was over 80 years old, and approximately 90% were aged over 65 years and older. Most of the fatal cases had underlying medical conditions.

Using proxy indicators to assess the burden of COVID-19, the health authorities in China report they have been monitoring outpatient visits to the 59,500 fever clinics set up in primary and secondary health care facilities across the country. They report reaching a peak of 2.867 million visits on 23 December 2022, and that these visits have since been declining.

As per the analysis released by China, the number of patients reported to be in emergency wards and the proportion of patients positive for SARS-CoV-2 is also declining after reaching a nationwide peak of over 1.5 million on 2 January 2023. They also reported that from 27 December 2022 to 3 January 2023, the number of newly hospitalized SARS-CoV-2 positive patients classified as severe increased rapidly, and reached approximately 10,000 new patients per day. As of 12 January, the occupancy rate of critical beds was 75.3%.

WHO will continue to work with China as we do with all Member States, providing technical advice and support, and engaging on analysing the situation. WHO will also continue to request that detailed provincial data disaggregated by week of reporting be shared to support ongoing surveillance efforts.
References


COVID-19 Weekly Epidemiological Update

Edition 125 published 11 January 2023

In this edition:
- Global overview
- SARS-CoV-2 variants of concern and Omicron subvariants under monitoring
- WHO regional overviews
- Hospitalizations and ICU admissions
- Summary of Monthly Operational Update

Global overview

Data as of 8 January 2023

Globally, nearly 2.9 million new cases and over 11,000 deaths were reported in the week of 2 to 8 January 2023 (Figure 1, Table 1). This represents a reduction in weekly cases and deaths of 9% and 12%, respectively. However, these trends need to be interpreted considering the reduction in testing and delays in reporting in many countries during the year-end holiday season. Therefore, data presented in this report, especially for the most recent weeks, are incomplete and the decreasing trends should be interpreted in that context as they may change with updated information provided following the holiday period.

In the last 28 days (12 December 2022 to 8 January 2023), over 13.9 million cases and over 49,000 new deaths were reported globally – an increase of 10% and 22% respectively, compared to the previous 28 days. As of 8 January 2023, over 65.9 million confirmed cases and over 6.6 million deaths have been reported globally.

Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 8 January 2023**

**See Annex 1: Data, table, and figure note**
At the regional level, the number of newly reported weekly cases decreased or remained stable across all WHO regions: the European Region (-36%), the South-East Asia Region (-27%), the African Region (-23%), the Region of the Americas (-7%), the Eastern Mediterranean Region (-1%), and the Western Pacific Region (+1%). The number of newly reported weekly deaths decreased or remained stable across four regions: the African Region (-53%), the European Region (-34%), the South-East Asia Region (-19%), and the Region of the Americas (-3%); while death numbers increased in the Eastern Mediterranean Region (+31%), and the Western Pacific Region (+5%).

At the country level, the highest numbers of new weekly cases were reported from Japan (1 070 496 new cases; +13%), the United States of America (462 944 new cases; +17%), the Republic of Korea (403 800 new cases; -12%), China (204 609 new cases; -6%), and Brazil (145 933 new cases; -29%). The highest numbers of new weekly deaths were reported from the United States of America (2695 new deaths; +8%), Japan (2149 new deaths; +11%), Brazil (926 new deaths; -17%), China (722 new deaths; +11%), and France (621 new deaths; -22%).

Current trends in reported COVID-19 cases are underestimates of the true number of global infections and reinfections as shown by prevalence surveys. 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 8 January 2023**

<table>
<thead>
<tr>
<th>WHO Region</th>
<th>New cases in last 7 days (%)</th>
<th>Change in new cases in last 7 days *</th>
<th>New cases in last 28 days (%)</th>
<th>Change in new cases in last 28 days *</th>
<th>Cumulative cases (%)</th>
<th>New deaths in last 7 days (%)</th>
<th>Change in new deaths in last 7 days *</th>
<th>New deaths in last 28 days (%)</th>
<th>Change in new deaths in last 28 days *</th>
<th>Cumulative deaths (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Pacific</td>
<td>1 693 425 (58%)</td>
<td>1%</td>
<td>7 000 900 (50%)</td>
<td>22%</td>
<td>108 476 128 (16%)</td>
<td>3409 (31%)</td>
<td>5%</td>
<td>12 529 (25%)</td>
<td>47%</td>
<td>299 951 (4%)</td>
</tr>
<tr>
<td>Americas</td>
<td>771 400 (27%)</td>
<td>-7%</td>
<td>3 647 941 (26%)</td>
<td>42%</td>
<td>187 065 779 (28%)</td>
<td>4531 (41%)</td>
<td>-3%</td>
<td>18 733 (38%)</td>
<td>28%</td>
<td>2 896 036 (43%)</td>
</tr>
<tr>
<td>Europe</td>
<td>418 751 (14%)</td>
<td>-36%</td>
<td>3 193 838 (23%)</td>
<td>-22%</td>
<td>270 496 218 (41%)</td>
<td>3001 (27%)</td>
<td>-34%</td>
<td>17 402 (35%)</td>
<td>12%</td>
<td>2 164 485 (32%)</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>587 880 (19%)</td>
<td>-27%</td>
<td>40 386 (1%)</td>
<td>-76%</td>
<td>60 743 975 (9%)</td>
<td>139 (1%)</td>
<td>-19%</td>
<td>873 (2%)</td>
<td>-47%</td>
<td>803 368 (12%)</td>
</tr>
<tr>
<td>Africa</td>
<td>458 100 (16%)</td>
<td>-23%</td>
<td>29 014 (1%)</td>
<td>-33%</td>
<td>9 456 363 (1%)</td>
<td>8 (&lt;1%)</td>
<td>-53%</td>
<td>74 (&lt;1%)</td>
<td>-70%</td>
<td>175 152 (3%)</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>411 680 (13%)</td>
<td>-1%</td>
<td>19 004 (1%)</td>
<td>-42%</td>
<td>23 226 914 (4%)</td>
<td>46 (&lt;1%)</td>
<td>31%</td>
<td>159 (&lt;1%)</td>
<td>-6%</td>
<td>349 135 (5%)</td>
</tr>
<tr>
<td>Global</td>
<td>2 898 151 (100%)</td>
<td>-9%</td>
<td>13 931 083 (100%)</td>
<td>10%</td>
<td>659 466 141 (100%)</td>
<td>11 134 (100%)</td>
<td>-12%</td>
<td>49 770 (100%)</td>
<td>22%</td>
<td>6 688 140 (100%)</td>
</tr>
</tbody>
</table>

*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, 2 to 8 January 2023**

**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, 2 to 8 January 2023**

**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 9 December 2022 to 9 January 2023, 97 693 SARS-CoV-2 sequences were shared through GISAID. Among these, 97 603 sequences were the Omicron variant of concern (VOC), accounting for 99.9% of sequences reported globally in the past 30 days.

BA.5 and its descendent lineages are still dominant globally, with 9685 sequences (59.7%) submitted to GISAID in week 51 (19 to 25 December 2022). The prevalence of BA.2 and its descendent lineages is rising, a trend based on 2201 sequences (13.6%) submitted globally in week 51. BA.4 and its descendent lineages are declining with a prevalence of 0.6% as of week 51. The remaining 3439 sequences (21.1%) are classified as "unassigned" or “other” in week 51. These are assumed to be Omicron descendent lineages yet to be assigned.

The six Omicron variants under monitoring accounted for 76.2% of all sequences submitted in week 51. Among these six variants, the prevalence is 53.4% for BQ.1*; 9.7% for BA.5 with one or several of five mutations (S:R346X, S:K444X, S:V445X, S:N450D, S:N460X); 8.1% for BA.2.75*; 4.6% for XBB*; 0.4% for BA.4.6*; and <0.1% for BA.2.3.20*.

WHO, with advice from Technical Advisory Group on Virus Evolution (TAG-VE), has conducted a global rapid risk assessment for XBB.1.5 (see Annex 3). XBB.1.5 is a sublineage of XBB, which is a recombinant of two BA.2 sublineages. Globally, 5288 sequences of XBB.1.5 have been reported from 38 countries. In brief, data on XBB.1.5 are limited; however, based on currently available information from one country, XBB.1.5 has a growth advantage compared to other circulating Omicron sublineages; based on only one country. Preliminary laboratory-based antibody escape studies indicate that XBB.1.5 has higher immune escape than previous Omicron descendent lineages; however, this finding has not yet been confirmed by epidemiological evidence in humans. At present, there is no available information on clinical severity for XBB.1.5.

Additional resources

- Tracking SARS-CoV-2 Variants
- TAG-VE statement on the situation in China, published on 3 January 2023
- 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

* Indicates inclusion of descendent lineages.
WHO regional overviews: Epidemiological week 2 to 8 January 2023

African Region

The African Region reported 4581 new cases, a 23% decrease as compared to the previous week. Two (4%) of the 50 countries for which data are available reported increases in new cases of 20% or greater: South Africa (1470 new cases; 2.5 new cases per 100 000; +322%) and Mozambique (180 vs 69 new cases; +161%). The highest numbers of new cases were reported from Réunion (2104 new cases; 235 new cases per 100 000; +14%), South Africa, and Ethiopia (659 new cases; <1 new case per 100 000; -27%).

The number of new weekly deaths in the region decreased by 53% as compared to the previous week, with eight new deaths reported. The highest numbers of new deaths were reported from Réunion (four new deaths; <1 new death per 100 000; +300%), Côte d’Ivoire (two new deaths; <1 new death per 100 000; +100%), and Mauritius (one new death; <1 new death per 100 000; -50%).

Updates from the African Region

Region of the Americas

The Region of the Americas reported over 771 000 new cases, a 7% decrease as compared to the previous week. Three (5%) of the 56 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Saint Barthélemy (10 vs six new cases; +67%), Trinidad and Tobago (246 vs 151 new cases; +63%), and Guyana (234 vs 159 new cases; +47%). The highest numbers of new cases were reported from the United States of America (462 944 new cases; 139.9 new cases per 100 000; +17%), Brazil (145 933 new cases; 68.7 new cases per 100 000; -29%), and Argentina (40 982 new cases; 90.7 new cases per 100 000; -44%).

The number of new weekly deaths in the region decreased by 3% as compared to the previous week, with 4531 new deaths reported. The highest numbers of new deaths were reported from the United States of America (2695 new deaths; <1 new death per 100 000; +8%), Brazil (926 new deaths; <1 new death per 100 000; -17%), and Canada (189 new deaths; <1 new death per 100 000; -30%).

Updates from the Region of the Americas
Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 4110 new cases, a 1% decrease as compared to the previous week. Two (9%) of the 22 countries for which data are available reported increases in new cases of 20% or greater: the Islamic Republic of Iran (668 vs 409 new cases; +63%), and Lebanon (907 vs 682 new cases; +33%). The highest numbers of new cases were reported from Qatar (1065 new cases; 37 new cases per 100 000; -26%), Lebanon, and the Islamic Republic of Iran.

The number of new weekly deaths in the region increased by 31% as compared to the previous week, with 46 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; +75%), Saudi Arabia (11 new deaths; <1 new death per 100 000; +10%), and Lebanon (six new deaths; <1 new death per 100 000; +100%).

Updates from the Eastern Mediterranean Region

European Region

The European Region reported over 418 000 new cases, a 36% decrease as compared to the previous week. Seven (11%) 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] (52 vs 35 new cases; +49%), Malta (241 vs 167 new cases; +44%), and Cyprus (3598 vs 2602 new cases; +38%). The highest numbers of new cases were reported from Germany (121 007 new cases; 145.5 new cases per 100 000; -21%), Italy (86 851 new cases; 145.6 new cases per 100 000; -34%), and France (73 186 new cases; 112.5 new cases per 100 000; -52%).

The number of new weekly deaths in the region decreased by 34% as compared to the previous week, with 3001 new deaths reported. The highest numbers of new deaths were reported from France (621 new deaths; 1 new death per 100 000; -22%), Italy (499 new deaths; <1 new death per 100 000; -33%), and Spain (318 new deaths; <1 new death per 100 000; +118%).

Updates from the European Region
South-East Asia Region

The South-East Asia Region reported over 5870 new cases, a 27% decrease as compared to the previous week. One (10%) of the 10 countries for which data are available reported increases in new cases of 20% or greater: Bhutan (13 vs seven new cases; +86%). The highest numbers of new cases were reported from Indonesia (3365 new cases; 1.2 new cases per 100 000; -17%), India (1275 new cases; <1 new case per 100 000; -17%), and Thailand (997 new cases; 1.4 new cases per 100 000; -53%).

The number of new weekly deaths in the region decreased by 19% as compared to the previous week, with 139 new deaths reported. The highest numbers of new deaths were reported from Indonesia (64 new deaths; <1 new death per 100 000; -22%), Thailand (58 new deaths; <1 new death per 100 000; -23%), and India (15 new deaths; <1 new death per 100 000; +25%).

Updates from the South-East Asia Region

Western Pacific Region

The Western Pacific Region reported just under 1.7 million new cases, a 1% increase as compared to the previous week. Five (14%) of the 35 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Mongolia (343 vs 108 new cases; +218%), Palau (five vs three new cases; +67%), and Cook Islands (134 vs 85 new cases; +58%). The highest numbers of new cases were reported from Japan (1 070 496 new cases; 846.4 new cases per 100 000; +13%), the Republic of Korea (403 800 new cases; 787.6 new cases per 100 000; -12%), and China (204 609 new cases; 13.9 new cases per 100 000; -6%).

The number of new weekly deaths in the region increased by 5% as compared to the previous week, with 3409 new deaths reported. The highest numbers of new deaths were reported from Japan (2149 new deaths; 1.7 new deaths per 100 000; +11%), China (722 new deaths; <1 new death per 100 000; +11%), and the Republic of Korea (371 new deaths; <1 new death per 100 000; -14%).

Updates from the Western Pacific Region
Hospitalizations and ICU admissions

At the global level, during epidemiological week 52 (26 December 2022 to 01 January 2023), a total of 23,509 new hospitalizations and 1,133 new intensive care unit (ICU) admissions were reported. The presented hospitalization data are preliminary and are likely to change as new data become available and are reported. 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 52, 23 (10%) 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 (14 countries; 23%) followed by the Eastern Mediterranean Region (four countries; 18%), the African Region (four countries; 8%), the Region of the Americas (one country; 2%). No country in the South-East Asia Region and the Western Pacific Region has reported data on new hospitalizations during week 52.

Across the six WHO regions, in week 52, a total of 14 (6%) 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 (10 countries; 16%) followed by the Eastern Mediterranean Region (three countries; 14%), the Region of the Americas (one country; 2%). No country in the African Region, the South-East Asia Region and the Western Pacific Region has reported data on new ICU admissions during week 52.

Among the 11 countries that reported more than 50 new hospitalizations, three countries showed an increasing trend compared to the previous week: Portugal (292 vs two new hospitalizations; +14 500%), Greece (1519 vs 1250 new hospitalizations; +22%) and Ukraine (2801 vs 2662 new hospitalizations; +5%).

Among the eight countries that reported more than 10 new ICU admissions, four countries showed an increasing trend compared to the previous week: Ireland (14 vs 4 new ICU admissions; +250%), Netherlands (51 vs 40 new ICU admissions; +28%), Greece (57 vs 51 new ICU admissions; +12%), and Ukraine (120 vs 118 new ICU admissions; +2%).

Figure 4. COVID-19 cases, deaths, hospitalizations, and ICU admissions reported weekly to WHO, as of 1 January 2023

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 aims to update on the ongoing global progress against the COVID-19 Strategic Preparedness and Response Plan (SPRP) 2021. In the latest edition, highlights of country-level actions and WHO support to countries include:

- WHO and partners deploy medical personnel and supplies in solidarity with Tuvalu’s COVID-19 response effort in the Western Pacific region
- WHO and Africa Infodemic Response Alliance (AIRA) host workshops on the ‘co-design’ approach on content development for Infodemic management in Nigeria
- WHO/Europe carries out its Regional Joint Assessment and Detection of Events (JADE) simulation exercise for the first time since the pandemic
- WHO conducts an assessment visit in Bhutan, ahead of the installation of the country’s first onsite medical oxygen generation system
- A nurse’s role in counteracting myths about COVID-19 vaccination in Honduras: “We talked for an hour, and I managed to vaccinate them against COVID-19”
- Local health workers in the Philippines champion COVID-19 safety on remote islands
- Fostering and mentoring laboratory leaders in Central Africa
- WHO launches emergency-use protocol for tecovirimat to support mpox response efforts globally
- Peru responds to mpox by engaging affected communities
- The WHE Balkan Hub builds local and long-term public health capacity for mpox prevention and control
- WHO publishes public health advice on preventing and addressing stigma and discrimination related to mpox
- WHO responds to cholera outbreaks across the world
- WHO at the forefront of the cholera response in Lebanon
- WHO/Europe hosts a strategic and operational planning and Monitoring and Evaluation workshop for refugee-hosting countries responding to the crisis in Ukraine
- Rapid response teams bolster Uganda’s response to Ebola Disease Outbreak
- WHO undertakes a measles-rubella campaign to prevent disease outbreaks in flood-affected Pakistan
- Ethiopian Emergency Medical Teams provides support to drought-affected areas as part of its deployment
- Global Health Cluster conducts a successful first all-women Health Cluster leadership training
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.


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.5
Annex 3. XBB.1.5 rapid risk assessment, 11 January 2023

The Omicron XBB.1.5 variant is a sublineage of XBB, which is a recombinant of two BA.2 sublineages. From 22 October 2022 to 11 January 2023, 5,288 sequences of the Omicron XBB.1.5 variant have been reported from 38 countries. Most of these sequences are from the United States of America (82.2%), the United Kingdom (8.1%), and Denmark (2.2%).

WHO’s Technical Advisory Group on Virus Evolution (TAG-VE) met on 5 January 2023 to discuss the latest evidence on XBB.1.5 and assess the public health risk associated with this variant. Based on its genetic characteristics and early growth rate estimates, XBB.1.5 may contribute to increases in case incidence. To date, the overall confidence in the assessment is low as growth advantage estimates are only from one country, the United States of America.

WHO and the TAG-VE recommend Member States to prioritize the following studies to better address uncertainties relating to the growth advantage, antibody escape, and severity of XBB.1.5. The suggested timelines are indicative and will vary from one country to another based on national capacities:

- Analysis of growth advantage from additional countries where XBB.1.5 has been detected (1-3 weeks).
- Neutralization assays using human sera representative of the affected community(ies) and XBB.1.5 live virus isolates (2-6 weeks).
- Comparative assessment to detect changes in rolling or ad hoc indicators of severity (see table below, 4-12 weeks).

The rapid risk assessment below is based on currently available evidence and will be revised regularly as more evidence and data from additional countries become available.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Confidence in the assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth advantage</td>
<td>Low</td>
</tr>
<tr>
<td>National weekly growth advantage in the United States of America, but withincountry regional differences reported, with an increase in proportions from 1% (95% CI 0.3-2.2%) in week 47 to 8% (95% CI 3.4-15.3%) in week 50, and a rapid increase in proportion in the north-east part of the United States of America. As of the date of publication, available data are available only from one country, and therefore confidence in a global assessment is low.</td>
<td>Moderate</td>
</tr>
<tr>
<td>Antibody escape</td>
<td></td>
</tr>
<tr>
<td>Along with BQ.1* variants, XBB* variants are the most antibody-resistant variants to date. Using pseudotyped virus neutralization assays, XBB.1.5 is shown to be equally immune evasive as XBB.1, the Omicron subvariant with the highest immune escape to date. These data reported that sera from individuals with a) BA.1, b) BA.5 or c) BF.7 breakthrough infection and three doses of the inactivated vaccine (Coronavac) or d) BA.5 infection following three or four doses of mRNA vaccine (BNT162b2 or mRNA-1273) do not induce high neutralization titers against XBB.1.5. There is currently no data on real world vaccine effectiveness against severe disease or death.</td>
<td></td>
</tr>
<tr>
<td>Severity and clinical considerations</td>
<td>Low</td>
</tr>
<tr>
<td>No data. Severity assessments are ongoing. XBB.1.5 does not carry any mutation known to be associated with potential change in severity (such as S:P681R).</td>
<td></td>
</tr>
<tr>
<td>Risk assessment</td>
<td></td>
</tr>
<tr>
<td>Based on its genetic characteristics and early growth rate estimates, XBB.1.5 may contribute to increases in case incidence globally. To date, the overall confidence in the assessment is low as growth advantage estimates are only from one country, the United States of America.</td>
<td></td>
</tr>
</tbody>
</table>
### Risk assessment framework and indicators used to assess risk and confidence given available evidence

<table>
<thead>
<tr>
<th>Growth advantage</th>
<th>Rapid indicators: 0-4 weeks</th>
<th>Confidence in the assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Evidence of a growth advantage likely to lead to global predominance</td>
<td>LOW</td>
</tr>
<tr>
<td></td>
<td>A. An increase in variant specific Rt</td>
<td>At least two models; data</td>
</tr>
<tr>
<td></td>
<td>B. Logistic growth (compared to currently circulating variant) (Nb variants with subnational-limited growth are not assessed).</td>
<td>from two countries not</td>
</tr>
<tr>
<td></td>
<td></td>
<td>linked by close travel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>At least two models and at</td>
</tr>
<tr>
<td></td>
<td></td>
<td>least three countries in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>three regions, over more than</td>
</tr>
<tr>
<td></td>
<td></td>
<td>two weeks</td>
</tr>
<tr>
<td>Immune escape</td>
<td>• Genomic (predictive) and structural biology assessment</td>
<td>One indicator (reinfection,</td>
</tr>
<tr>
<td></td>
<td>• Pseudovirus neutralization using vaccinee sera or pre-banked population serosurveys</td>
<td>neutralization or structural</td>
</tr>
<tr>
<td></td>
<td>• Reinfection rate through a cohort study or surveillance system</td>
<td>model)</td>
</tr>
<tr>
<td></td>
<td>• Signals from outbreak investigations</td>
<td>Two indicators including</td>
</tr>
<tr>
<td></td>
<td>(Rapid VE is unlikely by 28 days so the rapid RA cannot reach high confidence).</td>
<td>neutralization data</td>
</tr>
<tr>
<td>Severity and</td>
<td>• Change in a rolling surveillance metric for severity synchronized with increase in variant</td>
<td>One metric, one country</td>
</tr>
<tr>
<td>clinical</td>
<td>e.g.</td>
<td>Multiple metrics, one</td>
</tr>
<tr>
<td>considerations</td>
<td>• Infection hospitalization ratio</td>
<td>country OR same method in</td>
</tr>
<tr>
<td></td>
<td>• Indicators from sentinel hospital network (e.g. surveillance of severe acute respiratory</td>
<td>multiple countries</td>
</tr>
<tr>
<td></td>
<td>infections)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Comparison of admission trends with previous variants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Change in the demographic profile of who is admitted to hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Change in clinical phenotype</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Major tests/therapeutics issues</td>
<td></td>
</tr>
<tr>
<td>Risk assessment</td>
<td>Including overall view of threat in the wider context, confidence level in the assessment, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>identification of urgent priority work.</td>
<td></td>
</tr>
</tbody>
</table>

### Definitions
- **Rapid indicators**: 0-4 weeks
- **Low confidence**: All data derived from one country
- **Moderate confidence**: At least two models; data from two countries not linked by close travel
- **High confidence**: At least two models and at least three countries in three regions, over more than two weeks
References


COVID-19 Weekly Epidemiological Update

Edition 124 published 4 January 2023

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 1 January 2023

Globally, more than 3 million new cases and 10 000 deaths have been reported in the week of 26 December 2022 to 1 January 2023 (Figure 1, Table 1). This represents a reduction in weekly cases and deaths of 22% and 12%, respectively. However, those trends need to be interpreted considering the reduction in testing and delays in reporting in many countries during the year-end holiday season. Therefore, data presented in this report, especially for the most recent week, are incomplete and the decreasing trends should be interpreted in that context as they may change with updated information provided following the holiday period.

In the last 28 days (5 December 2022 to 1 January 2023), over 14.5 million cases and over 46 000 new fatalities were reported globally – an increase of 25% and 21%, respectively, compared to the previous 28 days. As of 1 January 2023, over 656 million confirmed cases and over 6.6 million deaths have been reported globally.

Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 1 January 2023**

**See Annex 1: Data, table, and figure note**
At the country level, the highest numbers of new weekly cases were reported from Japan (946,130 new cases; -18%), the Republic of Korea (457,745 new cases; -3%), the United States of America (393,587 new cases; -21%), China (218,019 new cases; +45%), and Brazil (206,944 new cases; -19%). The highest numbers of new weekly deaths were reported from the United States of America (2,501 new deaths; -14%), Japan (1,941 new deaths; -3%), Brazil (1,110 new deaths; +19%), France (803 new deaths; similar to the previous week), and China (648 new deaths; +48%).

Current trends in reported COVID-19 cases are underestimates of the true number of global infections and reinfections as shown by prevalence surveys. 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 1 January 2023**

<table>
<thead>
<tr>
<th>WHO Region</th>
<th>New cases in last 7 days (%)</th>
<th>Change in new cases in last 7 days *</th>
<th>New cases in last 28 days (%)</th>
<th>Change in new cases in last 28 days *</th>
<th>Cumulative cases (%)</th>
<th>New deaths in last 7 days (%)</th>
<th>Change in new deaths in last 7 days *</th>
<th>New deaths in last 28 days (%)</th>
<th>Change in new deaths in last 28 days *</th>
<th>Cumulative deaths (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Pacific</td>
<td>1,671,510 (55%)</td>
<td>-12%</td>
<td>6,912,050 (48%)</td>
<td>29%</td>
<td>106,781,875 (16%)</td>
<td>3,233 (30%)</td>
<td>7%</td>
<td>11,594 (25%)</td>
<td>49%</td>
<td>296,540 (4%)</td>
</tr>
<tr>
<td>Europe</td>
<td>548,940 (18%)</td>
<td>-43%</td>
<td>3,773,609 (26%)</td>
<td>-1%</td>
<td>269,940,463 (41%)</td>
<td>2,866 (27%)</td>
<td>-29%</td>
<td>15,263 (33%)</td>
<td>1%</td>
<td>2,157,684 (32%)</td>
</tr>
<tr>
<td>Americas</td>
<td>803,105 (26%)</td>
<td>-20%</td>
<td>3,721,828 (26%)</td>
<td>74%</td>
<td>186,265,607 (28%)</td>
<td>4,385 (41%)</td>
<td>-9%</td>
<td>18,270 (39%)</td>
<td>35%</td>
<td>2,891,057 (43%)</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>8,009 (&lt;1%)</td>
<td>-26%</td>
<td>58,908 (&lt;1%)</td>
<td>-69%</td>
<td>60,738,097 (9%)</td>
<td>172 (2%)</td>
<td>-32%</td>
<td>11,22 (2%)</td>
<td>-30%</td>
<td>803,229 (12%)</td>
</tr>
<tr>
<td>Africa</td>
<td>2,570 (&lt;1%)</td>
<td>-73%</td>
<td>28,797 (&lt;1%)</td>
<td>-38%</td>
<td>9,448,439 (1%)</td>
<td>13 (&lt;1%)</td>
<td>-32%</td>
<td>168 (&lt;1%)</td>
<td>2%</td>
<td>175,140 (3%)</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>4,153 (&lt;1%)</td>
<td>-16%</td>
<td>22,613 (&lt;1%)</td>
<td>-38%</td>
<td>23,222,798 (4%)</td>
<td>35 (&lt;1%)</td>
<td>-19%</td>
<td>164 (&lt;1%)</td>
<td>-9%</td>
<td>349,089 (5%)</td>
</tr>
<tr>
<td>Global</td>
<td>3,038,287 (100%)</td>
<td>-22%</td>
<td>14,517,805 (100%)</td>
<td>25%</td>
<td>656,398,043 (100%)</td>
<td>10,704 (100%)</td>
<td>-12%</td>
<td>46,581 (100%)</td>
<td>21%</td>
<td>6,672,752 (100%)</td>
</tr>
</tbody>
</table>

*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. COVID-19 cases per 100,000 population reported by countries, territories and areas, 26 December 2022 to 1 January 2023**

Confirmed cases reported in the last 7 days (per 100,000 population)

- 0.01 - 10.00
- 10.01 - 50.00
- 50.01 - 100.00
- 100.01 - 300.00
- > 300.00
- No confirmed cases reported in the last 7 days
- No reported confirmed cases

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

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. Curaçao, Sint Eustatius and Saba have been disaggregated and displayed at the subnational level.
Figure 3. COVID-19 deaths per 100,000 population reported by countries, territories and areas, 26 December 2022 to 1 January 2023* **

**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 2 December 2022 to 2 January 2023, 105,428 SARS-CoV-2 sequences were shared through GISAID. Among these, 103,723 sequences were the Omicron variant of concern (VOC), accounting for 98.4% of sequences reported globally in the past 30 days.

BA.5 and its descendent lineages are still dominant globally, accounting for 63.7% of sequences submitted to GISAID as of week 50 (12 to 18 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 15.2% of sequences submitted. BA.4 and its descendent lineages are declining with a prevalence of 0.7% as of week 50. Unassigned sequences (presumably Omicron) account for 13.6% of sequences submitted to GISAID in week 50, while the other lineages account for 6.1%.

At the global level, six variants currently under monitoring account for 74.4% of prevalence as of week 50 and have replaced the former BA.5 descendent lineages. These six variants under monitoring (and the respective prevalence) are BQ.1* (44.9%), a sublineage of BA.5, BA.5 with one or several of five mutations (S:R346X, S:K444X, S:V445X, S:N450D, S:N460X) (10.3%), BA.2.75* (11.8%), BA.4.6* (0.6%), and BA.2.3.20* (<0.1%). In week 50, the prevalence of XBB* was 6.8%, which includes XBB.1.5 which had an increase in sequences in week 50 (667 sequences) compared to week 49 (5 to 11 December 2022) where 525 sequences were reported. Based on current evidence, there is no indication of increased severity associated with these variants under monitoring compared to the former Omicron lineages.

The TAG-VE (Technical Advisory Group on SARS-CoV-2 Virus Evolution) convened on 3 January 2022 to discuss the COVID-19 situation in mainland China. The TAG-VE has released a statement which can be found here.

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 26 December 2022 to 1 January 2023  

African Region

The African Region reported over 2570 new cases, a 73% decrease as compared to the previous week. Five (10%) 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 Nigeria (35 vs 17 new cases; +106%), Mali (two vs one new cases; +100%), and Zambia (512 vs 320 new cases; +60%). The highest numbers of new cases were reported from Ethiopia (905 new cases; <1 new case per 100 000; -11%), Zambia (512 new cases; 2.8 new cases per 100 000; +60%), and South Africa (348 new cases; <1 new case per 100 000; -88%).

The number of new weekly deaths in the region decreased by 32% as compared to the previous week, with 13 new deaths reported. The highest numbers of new deaths were reported from Zimbabwe (four new deaths; <1 new death per 100 000; -33%), Madagascar (two new deaths; <1 new death per 100 000; +100%), and Zambia (two new deaths; <1 new death per 100 000; -33%).

Updates from the African Region

Region of the Americas

The Region of the Americas reported over 803 000 new cases, a 20% decrease as compared to the previous week. Two (4%) 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 Honduras (2230 vs 943 new cases; +136%), and Paraguay (3272 vs 1889 new cases; +73%). The highest numbers of new cases were reported from the United States of America (393 587 new cases; 118.9 new cases per 100 000; -21%), Brazil (206 944 new cases; 97.4 new cases per 100 000; -19%), and Argentina (72 558 new cases; 160.5 new cases per 100 000; +17%).

The number of new weekly deaths in the region decreased by 9% as compared to the previous week, with 4385 new deaths reported. The highest numbers of new deaths were reported from the United States of America (2501 new deaths; <1 new death per 100 000; -14%), Brazil (1110 new deaths; <1 new death per 100 000; +19%), and Peru (194 new deaths; <1 new death per 100 000; +4%).

Updates from the Region of the Americas
Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 4150 new cases, a 16% decrease as compared to the previous week. Two (9%) of the 22 countries for which data are available reported increases in new cases of 20% or greater: Libya (21 vs nine new cases; +133%) and Lebanon (682 vs 486 new cases; +40%). Some of the highest numbers of new cases were reported from Qatar (1441 new cases; 50 new cases per 100 000; -18%) and the United Arab Emirates (459 new cases; 4.6 new cases per 100 000; -1%).

The number of new weekly deaths in the region decreased by 19% as compared to the previous week, with 35 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (12 new deaths; <1 new death per 100 000; -14%), Saudi Arabia (10 new deaths; <1 new death per 100 000; -29%), and Tunisia (five new deaths; <1 new death per 100 000; -29%).

European Region

The European Region reported just under 549 000 new cases, a 43% decrease as compared to the previous week. Four (7%) 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 Kyrgyzstan (10 vs four new cases; +150%), Kosovo (35 vs 18 new cases; +94%), and Malta (167 vs 133 new cases; +26%). The highest numbers of new cases were reported from France (156 133 new cases; 240.1 new cases per 100 000; -48%), Germany (149 260 new cases; 179.5 new cases per 100 000; -35%), and Italy (83 202 new cases; 139.5 new cases per 100 000; -37%).

The number of new weekly deaths in the region decreased by 29% as compared to the previous week, with 2866 new deaths reported. The highest numbers of new deaths were reported from France (803 new deaths; 1.2 new deaths per 100 000; similar number of deaths reported the previous week), Italy (474 new deaths; <1 new death per 100 000; -41%), and the Russian Federation (379 new deaths; <1 new death per 100 000; -1%).

Updates from the Eastern Mediterranean Region

Updates from the European Region
**South-East Asia Region**

The South-East Asia Region reported over 8000 new cases, a 26% decrease as compared to the previous week. Six (60%) of the 10 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Timor-Leste (nine vs three new cases; +200%), Nepal (36 vs 20 new cases; +80%), and Myanmar (73 vs 57 new cases; +28%). The highest numbers of new cases were reported from Indonesia (4057 new cases; 1.5 new cases per 100 000; -38%), Thailand (2111 new cases; 3 new cases per 100 000; -27%), and India (1543 new cases; <1 new case per 100 000; +34%).

The number of new weekly deaths in the region decreased by 32% as compared to the previous week, with 172 new deaths reported. The highest numbers of new deaths were reported from Indonesia (82 new deaths; <1 new death per 100 000; -41%), Thailand (75 new deaths; <1 new death per 100 000; -16%), and India (12 new deaths; <1 new death per 100 000; -43%).

**Western Pacific Region**

The Western Pacific Region reported over one million new cases, a 12% decrease as compared to the previous week. Four (11%) of the 35 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Micronesia (Federated States of) (165 vs 21 new cases; +686%), Niue (123 vs 72 new cases; +71%), and Singapore (8 324 vs 5 481 new cases; +52%). The highest numbers of new cases were reported from Japan (946 130 new cases; 748.1 new cases per 100 000; -18%), the Republic of Korea (457 745 new cases; 892.8 new cases per 100 000; -3%), and China (218 019 new cases; 14.8 new cases per 100 000; +45%).

The number of new weekly deaths in the region increased by 7% as compared to the previous week, with 3233 new deaths reported. The highest numbers of new deaths were reported from Japan (1941 new deaths; 1.5 new deaths per 100 000; -3%), China (648 new deaths; <1 new death per 100 000; +48%), and the Republic of Korea (429 new deaths; <1 new death per 100 000; +9%).

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

Updates from the [Western Pacific Region](#)
Hospitalizations and ICU admissions

At the global level, during epidemiological week 51 (19 to 25 December 2022), a total of 23,696 new hospitalizations and 32 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 – especially for week 51, in which completeness of reporting is lower than usual due to the year-end holiday season. 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 51, nine (4% of all) countries reported data to WHO on new hospitalizations. The African Region reported hospitalization data from Ethiopia, Zambia and Zimbabwe; the Western Pacific Region reported from China and Singapore; the Region of the Americas reported from Mexico, Bonaire and Curacao; and the Eastern Mediterranean Region reported from Qatar. To date, no country in the European and the South-East Asia Regions has reported data on new hospital admissions during the week.

Across the six WHO regions, in week 51, a total of five (2%) 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 (two countries; 9%) followed by the African Region (one country; 2%), the Western Pacific Region (one country; 3%), and the Region of the Americas (one country; 2%). No country in the European Region and the South-East Asia Region has so far reported data on new ICU admissions during the week.

All three countries reporting more than 50 new hospitalizations showed an increasing trend compared to the previous week: China (22,416 vs 15,161 new hospitalizations; +48%), Mexico (1037 vs 915 new hospitalizations; +13%), and Singapore (184 vs 165 new hospitalizations; +12%).

Figure 4. COVID-19 cases, deaths, hospitalizations, and ICU admissions reported weekly to WHO, as of 25 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.


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.\(^5\)
References


