

# COVID-19 Weekly Epidemiological Update

Edition 139 published 20 April 2023

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## Global overview

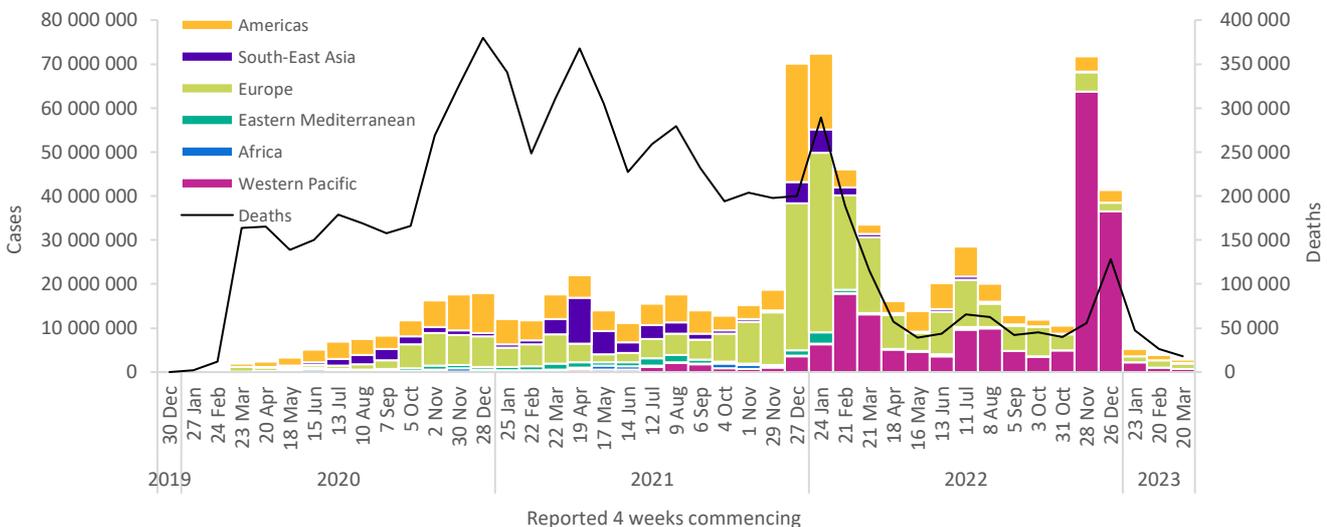
Data as of 16 April 2023

Globally, over 2.8 million new cases and approximately 18 000 deaths were reported in the last 28 days (20 March to 16 April 2023), a decrease of 27% and 32%, respectively, compared to the previous 28 days (20 February to 19 March 2023) (Figure 1, Table 1). Contrary to the overall trend, important increases in reported cases and deaths continued to be seen in the South-East Asia and Eastern Mediterranean regions and in several individual countries elsewhere. As of 16 April 2023, over 763 million confirmed cases and over 6.9 million deaths have been reported globally.

Reported COVID-19 cases are underestimates as shown by prevalence surveys.<sup>1-4</sup> This is partly due to the reductions in testing and delays in reporting in many countries. Data presented in this report are therefore incomplete and should be interpreted with caution. Additionally, data from previous weeks are continuously being updated to incorporate retrospective changes in reported COVID-19 cases and deaths made by countries.

We present changes in epidemiological trends using a 28-day interval. This wider time window helps to account for delays in reporting, smooth out weekly fluctuations in case numbers, and continue to provide a clear picture of where the pandemic is accelerating or decelerating. Disaggregated data are still accessible on the [WHO COVID-19 dashboard](#), where the full dataset is available for download.

**Figure 1. COVID-19 cases reported by WHO Region, and global deaths by 28-day intervals, as of 16 April 2023\*\***



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

At the regional level, the number of newly reported 28-day cases decreased across four of the six WHO regions: the African Region (-52%), the Western Pacific Region (-33%), the Region of the Americas (-32%), and the European Region (-28%); while case numbers increased in two WHO regions: the South-East Asia Region (+654%) and the Eastern Mediterranean Region (+96%). The number of newly reported 28-day deaths decreased across four regions: the Region of the Americas (-31%), the Western Pacific Region (-64%), the African Region (-47%), and the European Region (-30%); while death numbers increased in two WHO regions: the South-East Asia Region (+210%) and the Eastern Mediterranean Region (+134%).

At the country level, the highest numbers of new 28-day cases were reported from the United States of America (432 798 new cases; -45%), the Republic of Korea (286 182 new cases; +6%), the Russian Federation (259 138 new cases; -24%), France (219 428 new cases; +65%), and Brazil (212 578 new cases; +35%). The highest numbers of new 28-day deaths were reported from the United States of America (5559 new deaths; -32%), Brazil (1177 new deaths; -26%), the Russian Federation (994 new deaths; -4%), Germany (813 new deaths; -58%), and the Islamic Republic of Iran (754 new deaths; +193%).

**Table 1. Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 16 April 2023\*\***

WHO Region	New cases in last 28 days (%)	Change in new cases in last 28 days *	Cumulative cases (%)	New deaths in last 28 days (%)	Change in new deaths in last 28 days *	Cumulative deaths (%)
Europe	1 141 620 (40%)	-28%	275 545 701 (36%)	6 927 (39%)	-30%	2 224 189 (32%)
Americas	812 525 (29%)	-32%	191 999 130 (25%)	8126 (45%)	-31%	2 947 596 (43%)
Western Pacific	689 377 (24%)	-33%	202 337 068 (26%)	1 466 (8%)	-64%	409 821 (6%)
South-East Asia	141 367 (5%)	654%	60 923 641 (8%)	484 (3%)	210%	804 442 (12%)
Eastern Mediterranean	55 634 (2%)	96%	23 337 627 (3%)	857 (5%)	134%	350 678 (5%)
Africa	7 752 (<1%)	-52%	9 521 271 (1%)	17 (<1%)	-47%	175 341 (3%)
<b>Global</b>	<b>2 848 275 (100%)</b>	<b>-27%</b>	<b>763 665 202 (100%)</b>	<b>17 877 (100%)</b>	<b>-32%</b>	<b>6 912 080 (100%)</b>

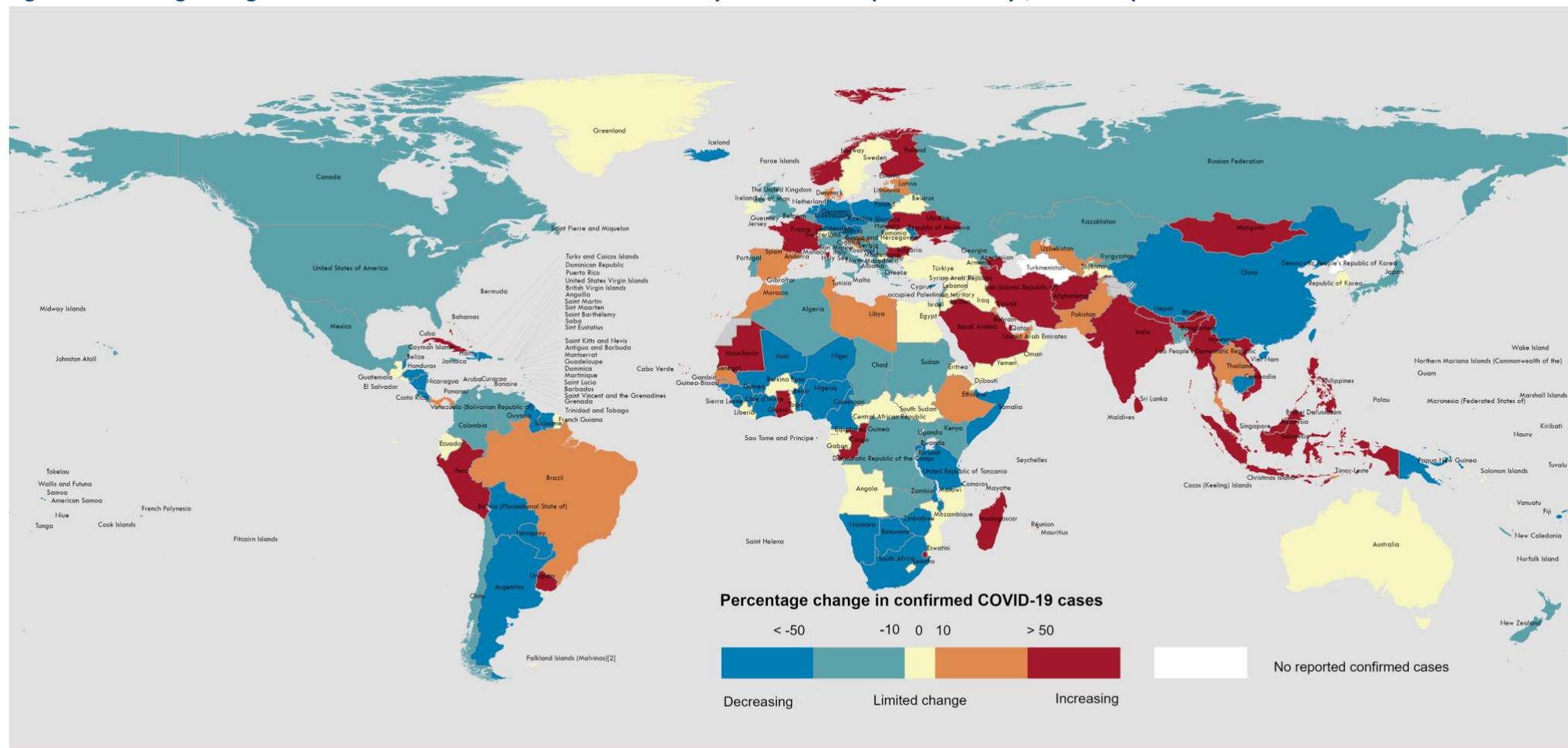
\*Percent change in the number of newly confirmed cases/deaths in the past 28 days, compared to 28 days prior. Data from previous weeks are updated continuously with adjustments received from countries.

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

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

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

Figure 2. Percentage change in confirmed COVID-19 cases over the last 28 days relative to the previous 28 days, as of 16 April 2023\*\*



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

Not applicable

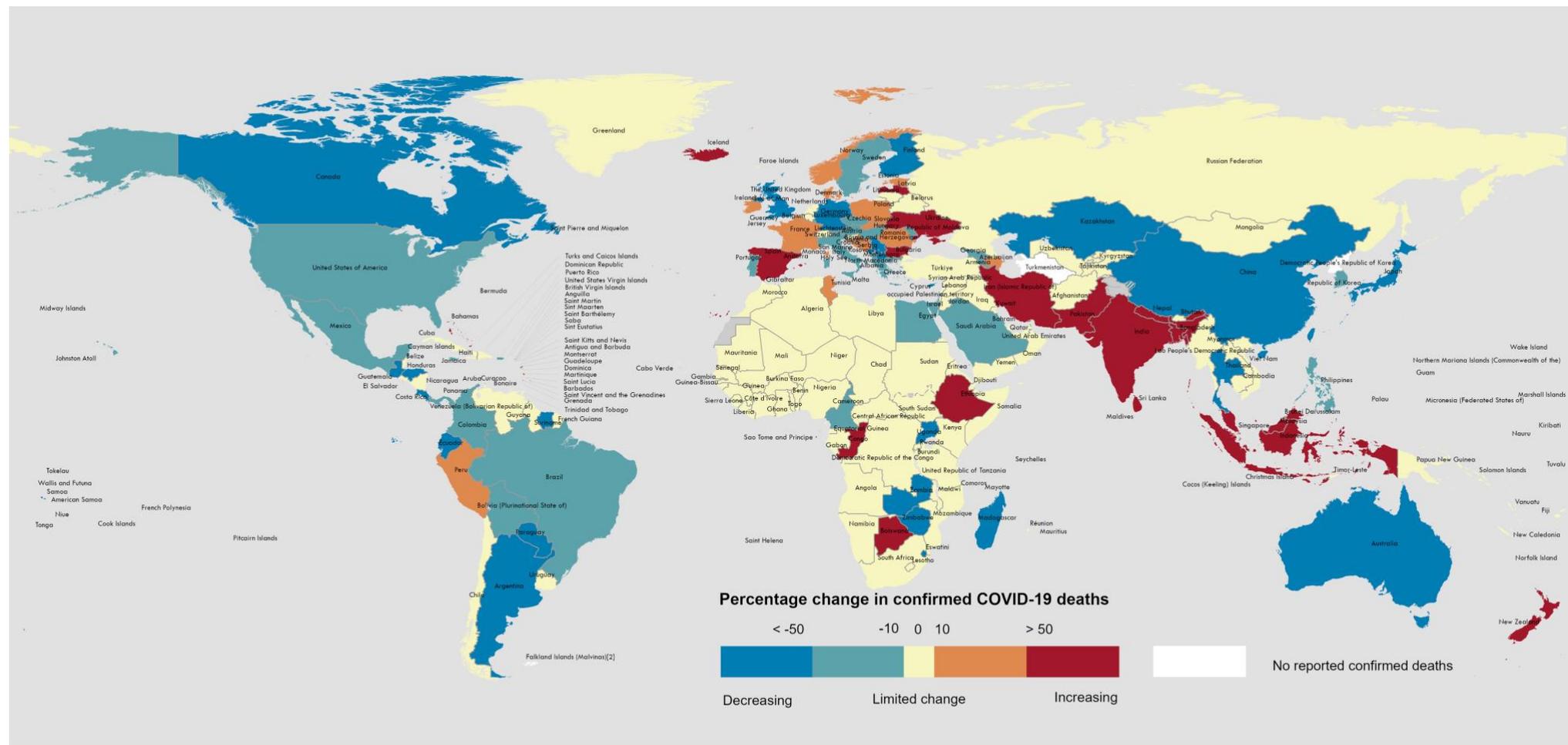
0 2,500 5,000 km

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

Figure 3. Percentage change in confirmed COVID-19 deaths over the last 28 days relative to the previous 28 days, as of 16 April 2023\*\*



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

Not applicable

0 2,500 5,000 km

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

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

### Geographic spread and prevalence

Globally, from 20 March to 16 April 2023 (28 days), 39 873 SARS-CoV-2 sequences were shared through GISAID.

WHO is currently tracking two variants of interest (VOIs): XBB.1.5 and XBB.1.16. On 17 April 2023, following a meeting of the Technical Advisory Group on Virus Evolution (TAG-VE), XBB.1.16 was added to the WHO list of VOIs. XBB.1.16 is a descendent lineage of XBB, which is a recombinant of two BA.2 descendent lineages. This variant was first reported in January 2023 and added to the WHO list of variants under monitoring (VUMs) on 22 March 2023. Additionally, WHO is tracking six VUMs and their descendent lineages, namely BA.2.75, CH.1.1, BQ.1, XBB, XBB.1.9.1 and XBF.

Globally, XBB.1.5 has been reported from 96 countries. In epidemiological week 13 (27 March to 2 April 2023), XBB.1.5 accounted for 50.8% of sequences, which is an increase from 46.2% in week 9 (27 February to 5 March 2023).

XBB.1.16 has been reported in 31 countries. In week 13, XBB.1.16 accounted for 4.2% of submitted sequences, which is up from 0.5% in week 9. The prevalence of XBB.1.16 is estimated from GISAID data using specific lineage-identifying nucleotide substitutions (T12730A, T28297C, and A28447G). Due to its estimated growth advantage and immune escape characteristics, XBB.1.16 may spread globally and contribute to an increase in case incidence. However, at present, there is no early signal of an increase in severity. The initial XBB.1.16 risk assessment is ongoing and is expected to be published in the coming days.

Table 2 shows the number of countries reporting the VOIs and VUMs and their prevalence from week 9 to week 13. Among the VUMs, XBB\* and XBB.1.9.1\* have shown increasing trends. These two VUMs accounted for 25.8% and 7.9% of sequences respectively in week 13, as compared to 8.4% and 4.4% in week 9. Other VUMs have presented declining or stable trends during the same period. The number of countries reporting the VOIs and VUMs, and their prevalence from week 9 to week 13, is shown in Table 2. VOI and VUMs that have shown increasing trends are highlighted in orange, those that have remained stable are highlighted in blue, and those with decreasing trends are highlighted in green.

**Table 2. Weekly prevalence of SARS-CoV-2 VOIs and VUMs, week 9 to week 13 of 2023**

Lineage	Countries	Sequences	2023-09	2023-10	2023-11	2023-12	2023-13
XBB.1.5* (VOI)	96	163 056	46.24	47.30	47.45	48.94	50.81
XBB.1.16* (VOI) <sup>§</sup>	31	3038	0.52	1.19	1.99	4.18	4.15
BA.2.75*	121	106 256	5.13	4.91	4.66	2.10	1.76
CH.1.1*	88	41 605	6.44	5.68	5.46	4.66	5.18
BQ.1*	144	413 059	11.12	9.19	7.45	5.04	3.99
XBB*	124	84 336	8.40	11.67	14.62	19.95	25.80
XBB.1.9.1*	64	11 530	4.41	5.34	6.22	6.96	7.91
XBF*	49	8 947	1.08	1.21	0.93	0.78	0.70
Unassigned	98	293 052	10.42	8.83	8.92	7.75	0.46
Other <sup>†</sup>	207	6 693 030	1.08	1.04	1.02	1.42	2.07

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

<sup>§</sup> The prevalence of XBB.1.16 was extracted from GISAID on 17 April 2023 using the nucleotide substitutions T12730A, T28297C, A28447G.

<sup>†</sup> Others are other circulating lineages excluding the VOI, VUMs, BA.1\*, BA.2\*, BA.3\*, BA.4\*, BA.5\*, BF.7\*.

**Additional resources**

- [Tracking SARS-CoV-2 Variants](#)
- [WHO statement on updated tracking system on SARS-CoV-2 variants of concern and variants of interest](#)
- [WHO XBB.1.5 rapid risk assessment, 24 February 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](#)

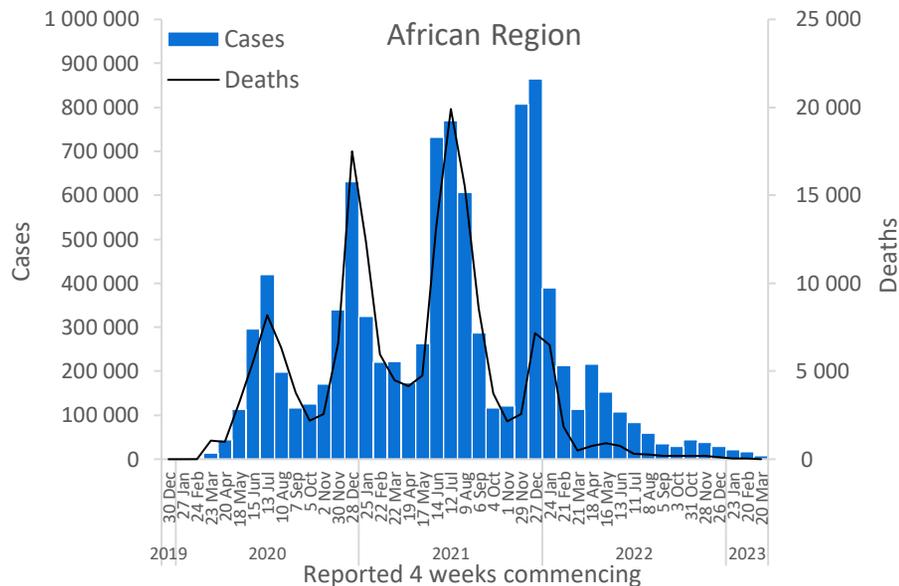
# WHO regional overviews

Data for 20 March to 16 April 2023

## African Region

The African Region reported over 7700 new cases, a 52% decrease as compared to the previous 28-day period. Eleven (22%) of the 50 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Mauritania (142 vs two new cases; +7000%), Sao Tome and Principe (246 vs 16 new cases; +1438%), and Ghana (331 vs 128 new cases; +159%). The highest numbers of new cases were reported from South Africa (2099 new cases; 3.5 new cases per 100 000; -79%), Mauritius (1944 new cases; 152.9 new cases per 100 000; +69%), and Zambia (553 new cases; 3 new cases per 100 000; -41%).

The number of new 28-day deaths in the Region decreased by 47% as compared to the previous 28-day period, with 17 new deaths reported. The highest numbers of new deaths were reported from Zimbabwe (six new deaths; <1 new death per 100 000; -60%), Sao Tome and Principe (three new deaths; 1.4 new deaths per 100 000; no death reported the previous 28-day period), and Cameroon (two new deaths; <1 new death per 100 000; -33%).

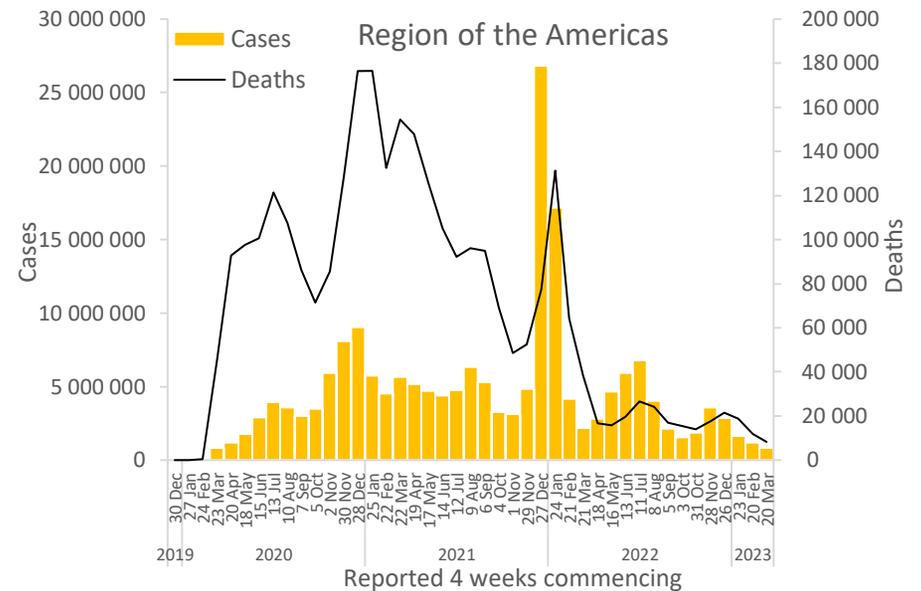


Updates from the [African Region](#)

## Region of the Americas

The Region of the Americas reported over 812 000 new cases, a 32% decrease as compared to the previous 28-day period. Eight (14%) 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 Saba (70 vs two new cases; +3400%), Barbados (534 vs 153 new cases; +249%), and Uruguay (2049 vs 1000 new cases; +105%). The highest numbers of new cases were reported from the United States of America (432 798 new cases; 130.8 new cases per 100 000; -45%), Brazil (212 578 new cases; 100.0 new cases per 100 000; +35%), and Chile (50 819 new cases; 265.8 new cases per 100 000; -36%).

The number of new 28-day deaths in the Region decreased by 31% as compared to the previous 28-day period, with 8126 new deaths reported. The highest numbers of new deaths were reported from the United States of America (5559 new deaths; 1.7 new deaths per 100 000; -32%), Brazil (1177 new deaths; <1 new death per 100 000; -26%), and Peru (354 new deaths; 1.1 new deaths per 100 000; +11%).

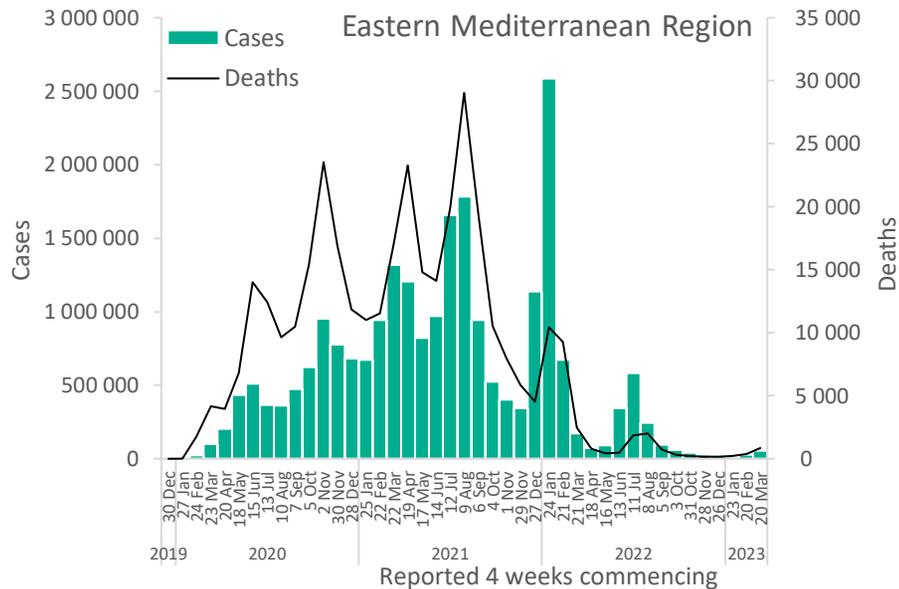


Updates from the [Region of the Americas](#)

## Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 55 000 new cases, a 96% increase as compared to the previous 28-day period. Nine (41%) of the 22 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Afghanistan (2836 vs 690 new cases; +311%), Qatar (8996 vs 2451 new cases; +267%), and Saudi Arabia (7044 vs 2328 new cases; +203%). The highest numbers of new cases were reported from the Islamic Republic of Iran (24 020 new cases; 28.6 new cases per 100 000; +90%), Qatar (8996 new cases; 312.2 new cases per 100 000; +267%), and Saudi Arabia (7044 new cases; 20.2 new cases per 100 000; +203%).

The number of new 28-day deaths in the Region increased by 134% as compared to the previous 28-day period, with 857 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (754 new deaths; <1 new death per 100 000; +193%), Lebanon (34 new deaths; <1 new death per 100 000; -6%), and Tunisia (22 new deaths; <1 new death per 100 000; +16%).

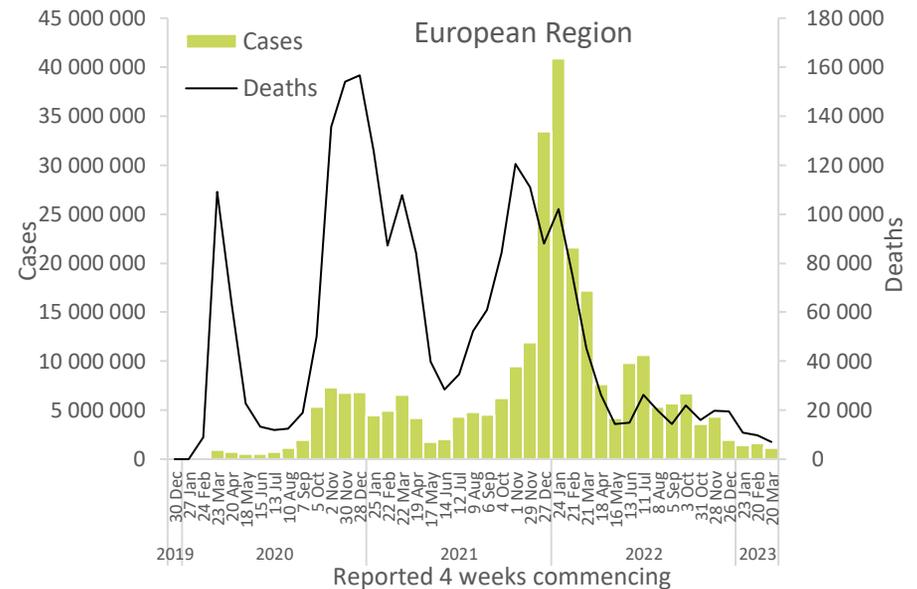


Updates from the [Eastern Mediterranean Region](#)

## European Region

The European Region reported over one million new cases, a 29% decrease as compared to the previous 28-day period. Eleven (18%) of the 61 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Gibraltar (88 vs 48 new cases; +83%), Azerbaijan (1563 vs 879 new cases; +78%), and Bulgaria (3769 vs 2188 new cases; +72%). The highest numbers of new cases were reported from the Russian Federation (259 138 new cases; 177.6 new cases per 100 000; -24%), France (219 428 new cases; 337.4 new cases per 100 000; +65%), and Germany (82 957 new cases; 99.7 new cases per 100 000; -71%).

The number of new 28-day deaths in the Region decreased by 30% as compared to the previous 28-day period, with 6927 new deaths reported. The highest numbers of new deaths were reported from the Russian Federation (994 new deaths; <1 new death per 100 000; -4%), Germany (813 new deaths; 1 new death per 100 000; -58%), and Spain (713 new deaths; 1.5 new deaths per 100 000; +111%).

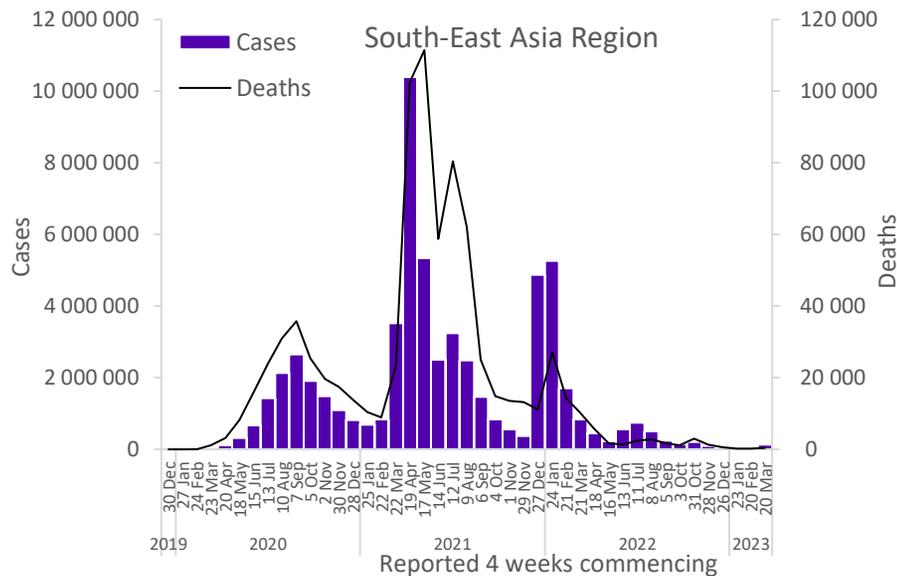


Updates from the [European Region](#)

## South-East Asia Region

The South-East Asia Region reported over 141 000 new cases, a 654% increase as compared to the previous 28-day period. Eight (73%) of the 11 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Nepal (996 vs 49 new cases; +1933%), India (122 695 vs 10 503 new cases; +1068%), and the Maldives (287 vs 26 new cases; +1004%). The highest numbers of new cases were reported from India (122 695 new cases; 8.9 new cases per 100 000; +1068%), Indonesia (16 091 new cases; 5.9 new cases per 100 000; +125%), and Nepal (996 new cases; 3.4 new cases per 100 000; +1933%).

The number of new 28-day deaths in the Region increased by 210% as compared to the previous 28-day period, with 484 new deaths reported. The highest numbers of new deaths were reported from India (312 new deaths; <1 new death per 100 000; +643%), Indonesia (152 new deaths; <1 new death per 100 000; +79%), and Thailand (13 new deaths; <1 new death per 100 000; -52%).

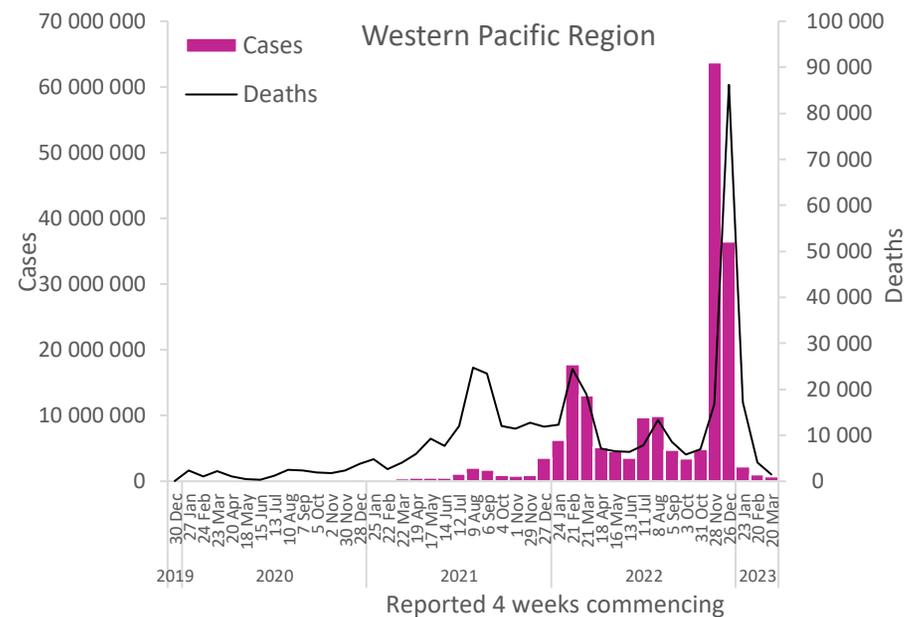


Updates from the [South-East Asia Region](#)

## Western Pacific Region

The Western Pacific Region reported over 689 000 new cases, a 33% decrease as compared to the previous 28-day period. Ten (29%) 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 Viet Nam (3 217 vs 329 new cases; +878%), the Cook Islands (22 vs six new cases; +267%), and Mongolia (55 vs 15 new cases; +267%). The highest numbers of new cases were reported from the Republic of Korea (286 182 new cases; 558.2 new cases per 100 000; +6%), Japan (199 392 new cases; 157.7 new cases per 100 000; -30%), and Australia (77 134 new cases; 302.5 new cases per 100 000; -5%).

The number of new 28-day deaths in the Region decreased by 64% as compared to the previous 28-day period, with 1466 new deaths reported. The highest numbers of new deaths were reported from Japan (709 new deaths; <1 new death per 100 000; -61%), the Republic of Korea (201 new deaths; <1 new death per 100 000; -34%), and the Philippines (161 new deaths; <1 new death per 100 000; -36%).



Updates from the [Western Pacific Region](#)

## Hospitalizations and ICU admissions

At the global level, from 13 March to 9 April 2023 (28 days), a total of 75 486 new hospitalizations and 2758 new intensive care unit (ICU) admissions were reported. This represents a 4% increase in new hospitalizations and a 4% reduction in ICU admissions compared to the previous 28 days (13 February to 12 March 2023). The presented hospitalization data are preliminary and might change as new data become available. Furthermore, hospitalization data are subject to reporting delays. These data also likely include both hospitalizations with incidental cases of SARS-CoV-2 infection and those due to COVID-19 disease.

Globally, during the past 28 days, 52 (22%) countries reported data to WHO on new hospitalizations at least once. The European Region had the highest proportion of countries reporting data on new hospitalizations (23 countries; 38%), followed by the Eastern Mediterranean Region (six countries; 27%), the South-East Asia Region (three countries; 27%), the African Region (ten countries; 20%), the Region of the Americas (seven countries; 13%), and the Western Pacific Region (three countries; 9%).

Among the 25 countries consistently<sup>i</sup> reporting new hospitalizations, eight (32%) countries registered an increase of 20% or greater in hospitalizations during the past 28 days compared to the previous 28-day period: Qatar (249 vs 46; +441%), Afghanistan (10 vs 7; +43%), France (10 485 vs 7540; +39%), Indonesia (1 732 vs 1280; +35%), Latvia (713 vs 532; +34%), Ukraine (17 423 vs 13 872; +26%), Estonia (555 vs 443; +25%), and Malaysia (4498 vs 3712; +21%). The highest number of new hospitalizations was reported from Ukraine (17 423 vs 13 872; +26%), France (10 485 vs 7540; +39%), and Italy (8866 vs 11 785; -25%).

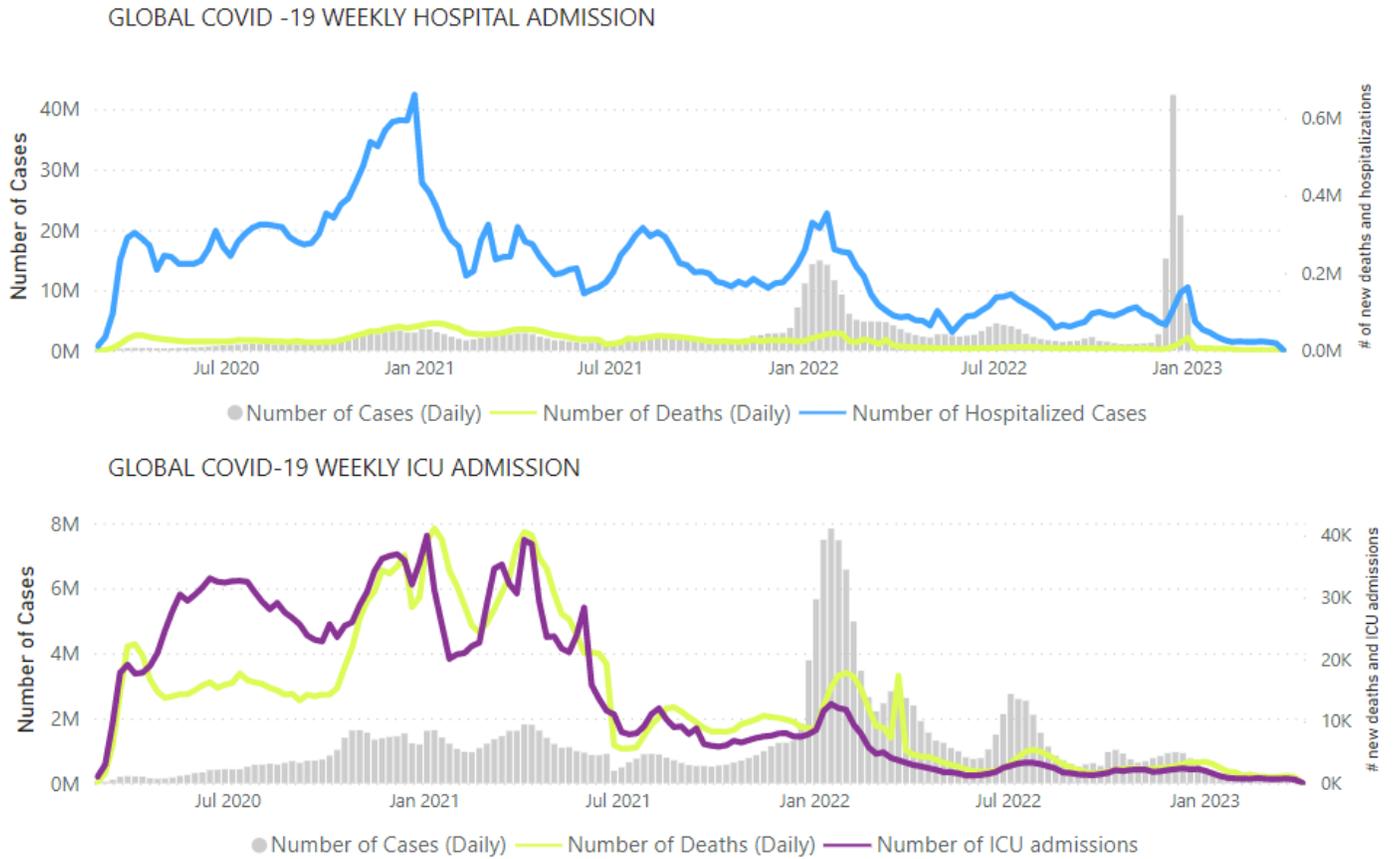
Across the six WHO regions, in the past 28 days, a total of 38 (16%) countries reported data to WHO on new ICU admissions at least once. The European Region had the highest proportion of countries reporting data on new ICU admissions (18 countries; 30%), followed by the Eastern Mediterranean Region (five countries; 23%), the South-East Asia Region (two countries; 18%), the African Region (five countries; 10%), the Region of the Americas (five countries; 9%), and the Western Pacific Region (three countries; 9%).

Among the 23 (10%) countries that consistently reported new ICU admissions, five (22%) countries showed an increase of 20% or greater in new ICU admissions during the past 28 days compared to the previous 28-day period: Qatar (seven vs four; +75%), France (959 vs 721; +33%), Pakistan (22 vs 17; +29%), Malaysia (37 vs 29; +28%), and Indonesia (103 vs 82; +26%). The highest numbers of new ICU admissions were reported from France (959 vs 721; +33%), Ukraine (438 vs 451; -3%), and Italy (294 vs 447; -34%).

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<sup>i</sup> “Consistently” as used here refers to countries that submitted data for new hospitalizations and intensive care unit admissions for the four consecutive weeks that make up the 28-day period

Figure 4. COVID-19 cases, deaths, hospitalizations, and ICU admissions reported weekly to WHO, as of 9 April 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](mailto: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](https://covid19.who.int) for the most up-to-date data. COVID-19 confirmed cases and deaths reported in the last seven days by countries, territories, and areas, and WHO Region (reported in previous issues) are now available at: <https://covid19.who.int/table>.

'Countries' may refer to countries, territories, areas or other jurisdictions of similar status. The designations employed, and the presentation of these materials do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. Countries, territories, and areas are arranged under the administering WHO region. The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

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

## 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 and to track changes in prevalence and viral characteristics. The current trends describing the circulation of variants should be interpreted with due consideration of the limitations of the COVID-19 surveillance systems. These include differences in sequencing capacity and sampling strategies between countries, changes in sampling strategies over time, reductions in tests conducted and sequences shared by countries, and delays in uploading sequence data to GISAID.<sup>5</sup>

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