COVID-19 Weekly Epidemiological Update

Edition 137 published 06 April 2023

In this edition:

- Global overview
- SARS-CoV-2 variants of interest and variant of concern
- WHO regional overviews
- Hospitalizations and ICU admissions

Global overview

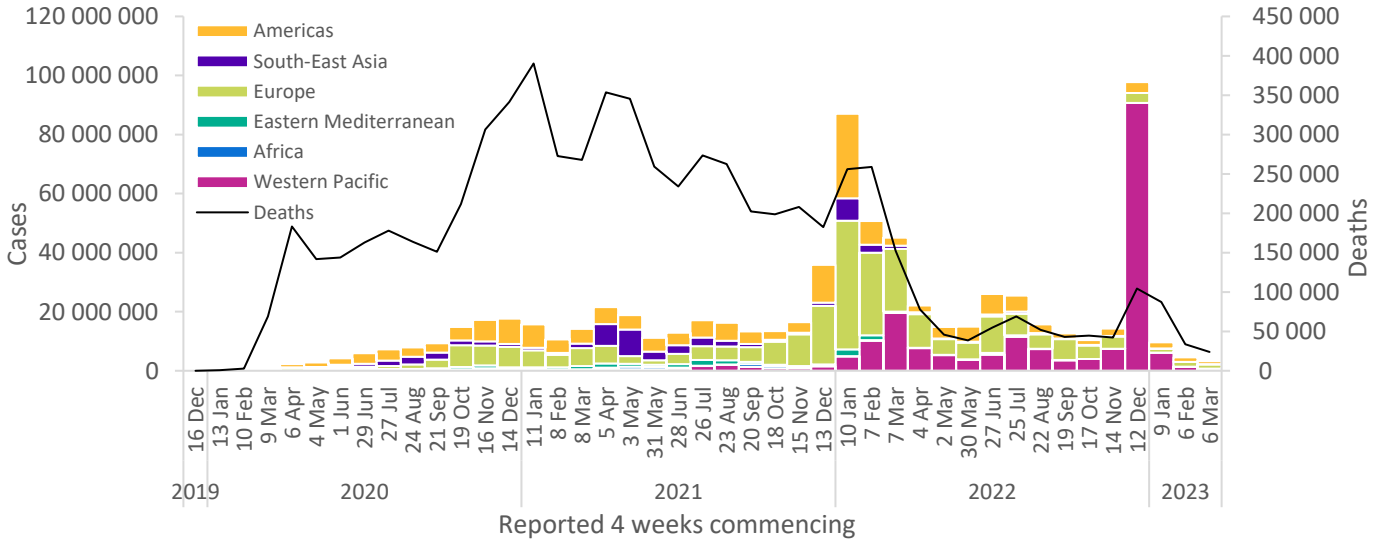
Data as of 2 April 2023

Globally, nearly 3.3 million new cases and over 23 000 deaths were reported in the last 28 days (6 March to 2 April 2023), a decrease of 28% and 30%, respectively, compared to the previous 28 days (6 February to 5 March 2023) (Figure 1, Table 1). Despite this overall downward trend, it is important to note that 74 (31%) countries have reported increases in new cases of 20% or greater during the last 28 days compared to the previous 28-day period. As of 2 April 2023, over 762 million confirmed cases and over 6.8 million deaths have been reported globally.

Current trends in reported COVID-19 cases continue to be underestimates of the true number of global infections and reinfections as shown by prevalence surveys.[1–4] 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 2 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 Western Pacific Region (-48%), the African Region (-30%), the Region of the Americas (-29%), and the European Region (-13%); while cases increased in two WHO regions: the Eastern Mediterranean Region (+147%), and the South-East Asia Region (+289%). The number of newly reported 28-day deaths decreased across four regions: the Western Pacific Region (-65%), the African Region (-43%), the Region of the Americas (-34%), and the European Region (-5%); while deaths increased in two WHO regions: the Eastern Mediterranean Region (+118%), and the South-East Asia Region (+36%).

At the country level, the highest numbers of new 28-day cases were reported from the United States of America (626 532 new cases; -39%), the Russian Federation (313 998 new cases; -9%), the Republic of Korea (271 162 new cases; -11%), Japan (202 631 new cases; -61%), and France (193 359 new cases; +98%). The highest numbers of new 28-day deaths were reported from the United States of America (7458 new deaths; -31%), the United Kingdom (2678 new deaths; -7%), Japan (1168 new deaths; -65%), Germany (1090 new deaths; -39%), and the Russian Federation (1014 new deaths; similar to the previous week).

Table 1. Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 2 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	1 384 908 (42%)	-13%	**274 837 959 (36%)**	10 417 (44%)	-5%	**2 209 482 (32%)**
Americas	1 047 358 (32%)	-29%	**191 734 288 (25%)**	10 152 (43%)	-34%	**2 944 706 (43%)**
Western Pacific	736 177 (23%)	-48%	**201 915 129 (26%)**	2494 (10%)	-65%	**408 974 (6%)**
South-East Asia	46 332 (1%)	289%	**60 816 269 (8%)**	228 (1%)	36%	**804 106 (12%)**
Eastern Mediterranean	42 675 (1%)	147%	**23 306 010 (3%)**	537 (2%)	118%	**350 127 (5%)**
Africa	12 036 (<1%)	-30%	**9 518 290 (1%)**	21 (<1%)	-43%	**175 333 (3%)**
Global	**3 269 486 (100%)**	**-28%**	**762 128 709 (100%)**	**23 849 (100%)**	**-30%**	**6 892 741 (100%)**

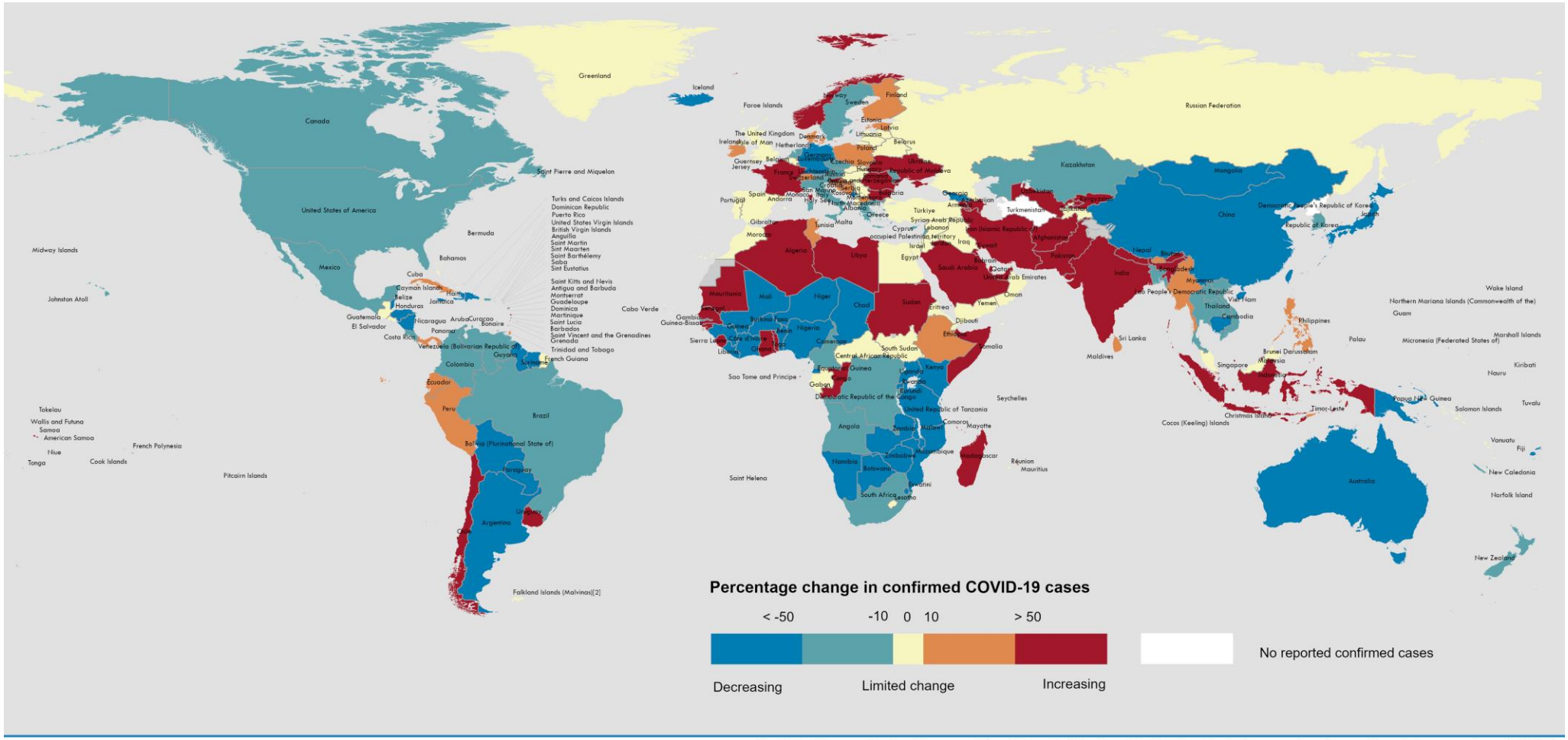
**Percent change in the number of newly confirmed cases/deaths in the past 28 days, compared to 28 days prior. Data from previous weeks are updated continuously with adjustments received from countries.*

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

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

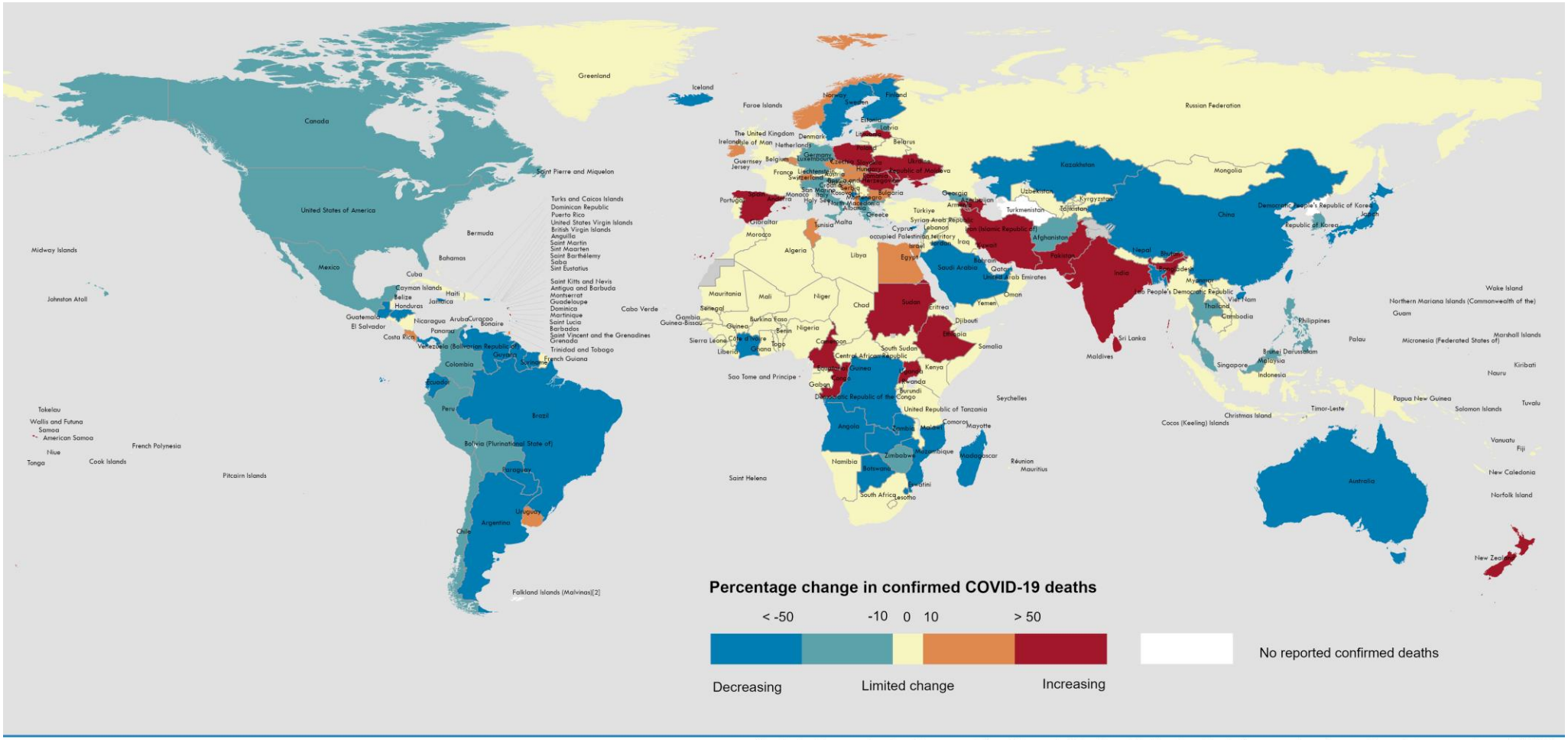
- WHO COVID-19 Dashboard
- WHO Monthly Operational Update and past editions of the Weekly Epidemiological Update on COVID-19
- WHO COVID-19 detailed surveillance data dashboard
- WHO COVID-19 policy briefs

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



**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 2 April 2023**



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

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. [1] All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). Number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes. [2] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas). Data for Bonaire, Sint Eustatius and Saba have been disaggregated and displayed at the subnational level.

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

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

Geographic spread and prevalence

Globally, from 5 March to 2 April 2023 (28 days), 65 864 SARS-CoV-2 sequences were shared through GISAID.

Currently, WHO is closely tracking one variant of interest (VOI), XBB.1.5, and seven variants under monitoring (VUMs). The VUMs are BA.2.75, CH.1.1, BQ.1, XBF, XBB, XBB.1.16, and XBB.1.9.1. On 30 March 2023, XBB.1.9.1 was added to the list of VUMs due to the F486P mutation (shared with XBB.1.5 and XBB.1.16). XBB.1.16 and XBB.1.9.1 have the same spike mutation profile as XBB.1.5 (E180V and F486P); and additional mutations in the open reading frame regions, the effects of which are not well characterized. Mutations at position 478 of the SARS-CoV-2 spike protein have been associated with decreased antibody neutralization, increased transmissibility, and pathogenicity.[i,ii,iii,iv] As of 2 April, a total of 1497 XBB.1.16 and 9644 sequences XBB.1.9.1 have been reported from 27 and 68 countries, respectively.

To date, there have been no reports of higher severity for the currently circulating variants, although some countries have reported an increase in hospitalizations following a rise in case incidence. However, there have been no reported rises in ICU admissions or deaths due to any of the currently circulating XBB descendent lineages. There are currently no reported laboratory studies on markers of disease severity for XBB.1.5, XBB.1.16 or XBB.1.9.1.

Globally, XBB.1.5 accounted for 47.1% of cases in epidemiological week 11 (13 to 19 March 2023), compared to 39.8% in week 7 (13 to 19 February 2023). To date, XBB.1.5 has been detected in 94 countries. A comparison of sequences submitted to GISAID from week 7 to week 11 shows declining trends for all VUMs except for XBB, XBB.1.16, and XBB.1.9.1. Table 2 shows the number of countries reporting the VOI and VUMs, and their prevalence from week 7 to week 11.

[i] SARS-CoV-2 variants, spike mutations and immune escape: https://www.nature.com/articles/s41579-021-00573-0

[ii] Emerging Vaccine-Breakthrough SARS-CoV-2 Variants: https://www.ncbi.nlm.nih.gov/research/coronavirus/publication/35133792

[iii] SARS-CoV-2 Spike Mutations, L452R, T478K, E484Q and P681R, in the Second Wave of COVID-19 in Maharashtra, India: https://www.ncbi.nlm.nih.gov/research/coronavirus/publication/34361977

[iv] Antibody-Mediated Neutralization of Authentic SARS-CoV-2 B.1.617 Variants Harbouring L452R and T478K/E484Q: https://www.ncbi.nlm.nih.gov/research/coronavirus/publication/34578275

Table 2. Weekly prevalence of SARS-CoV-2 VOIs and VUMs, week 7 to week 11 of 2023

Lineage	Countries	Sequences	2023-07	2023-08	2023-09	2023-10	2023-11
XBB.1.5* (VOI)	94	139 228	39.83	43.61	45.97	48.32	47.14
BA.2.75*	121	102 656	6.05	5.87	5.16	2.84	1.59
CH.1.1*	88	38 888	6.91	6.70	6.50	5.80	5.04
BQ.1*	142	406 210	18.68	14.79	11.07	8.52	6.92
XBB*	122	74 221	5.52	6.69	8.16	11.80	15.26
XBB.1.9.1*	59	8212	2.03	2.96	4.26	5.46	5.96
XBF*	48	8505	1.25	1.24	1.10	1.26	0.87
Unassigned	96	292 690	9.17	8.99	10.91	10.28	13.77
Other[+]	207	6 690 563	1.28	1.10	1.12	1.05	1.02
XBB.1.16[§]	27	1497	0.12	0.25	0.60	1.32	2.15

[*] Denotes descendent lineages.

[§] The prevalence of XBB.1.16 was extracted from GISAID on 5 April 2023 using the nucleotides T12730A, T28297C, A28447G.

[+] Others are other circulating lineages excluding the VOI, VUMs, BA.1*, BA.2*, BA.3*, BA.4*, BA.5*.

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

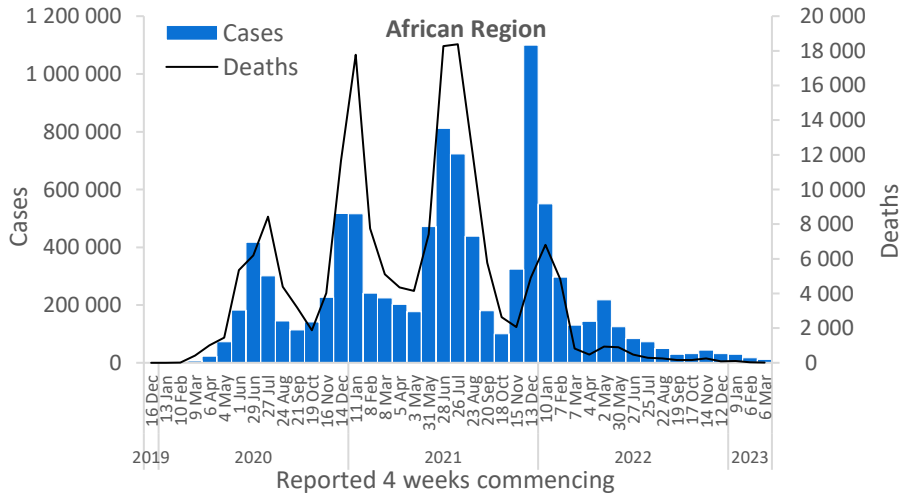
WHO regional overviews

Data for 6 March to 2 April 2023

African Region

The African Region reported over 12 000 new cases, a 30% decrease as compared to the previous 28-day period. Thirteen (26%) 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 Sao Tome and Principe (156 vs one new cases; +15 500%), Guinea-Bissau (390 vs seven new cases; +5471%), and Mauritania (76 vs two new cases; +3700%). The highest numbers of new cases were reported from South Africa (6790 new cases; 11.4 new cases per 100 000; -21%), Mauritius (1432 new cases; 112.6 new cases per 100 000; +20%), and Ethiopia (525 new cases; <1 new case per 100 000; +33%).

The number of new 28-day deaths in the Region decreased by 43% as compared to the previous 28-day period, with 21 new deaths reported. The highest numbers of new deaths were reported from Zimbabwe (10 new deaths; <1 new death per 100 000; -17%), Cameroon (four new deaths; <1 new death per 100 000; +300%), and Uganda (two new deaths; <1 new death per 100 000; no death reported the previous 28-day period).

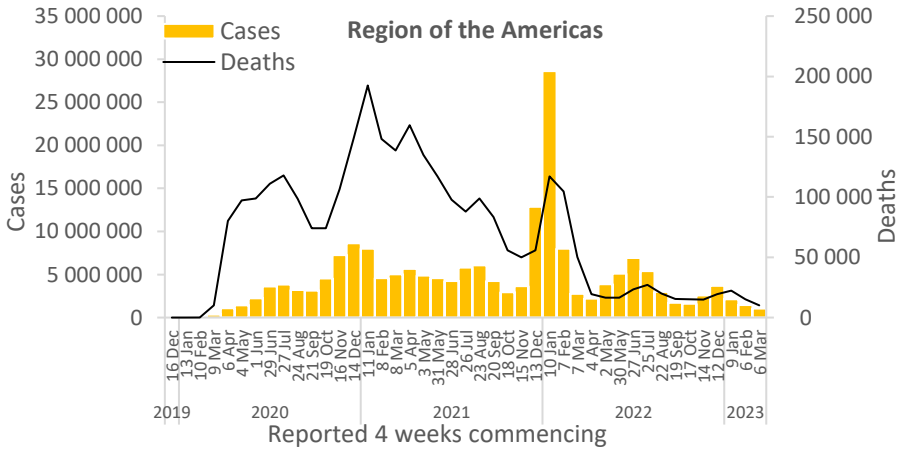


Updates from the African Region

Region of the Americas

The Region of the Americas reported over one million new cases, a 29% decrease as compared to the previous 28-day period. Fourteen (25%) of the 56 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Saba (71 vs one new cases; +7000%), Saint Barthélemy (37 vs 10 new cases; +270%), and Saint Vincent and the Grenadines (11 vs five new cases; +120%). The highest numbers of new cases were reported from the United States of America (626 532 new cases; 189.3 new cases per 100 000; -39%), Brazil (182 610 new cases; 85.9 new cases per 100 000; -13%), and Chile (86 560 new cases; 452.8 new cases per 100 000; +69%).

The number of new 28-day deaths in the Region decreased by 34% as compared to the previous 28-day period, with 10 152 new deaths reported. The highest numbers of new deaths were reported from the United States of America (7458 new deaths; 2.3 new deaths per 100 000; -31%), Brazil (963 new deaths; <1 new death per 100 000; -50%), and Canada (593 new deaths; 1.6 new deaths per 100 000; -20%).

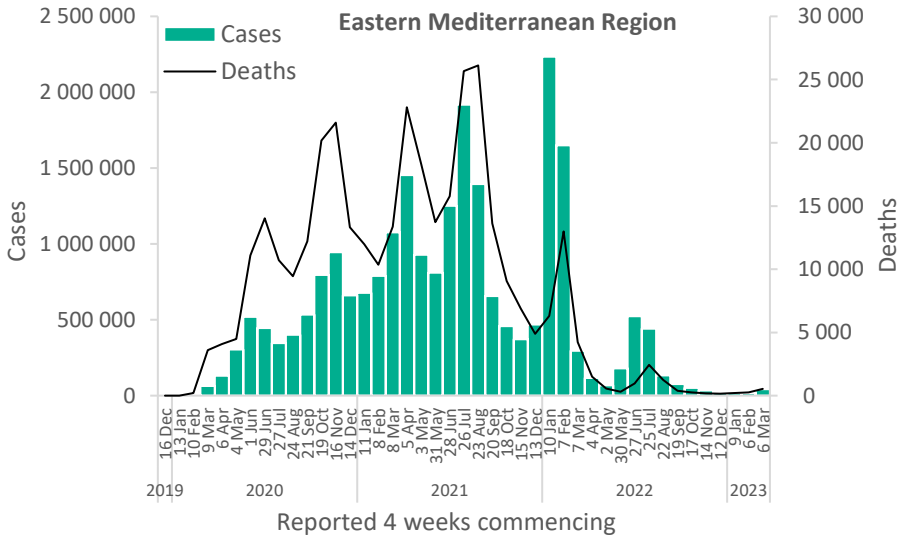


Updates from the Region of the Americas

Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 42 000 new cases, a 147% increase as compared to the previous 28-day period. Eleven (50%) 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 Kuwait (1666 vs 310 new cases; +437%), Somalia (10 vs two new cases; +400%), and Pakistan (2687 vs 729 new cases; +269%). The highest numbers of new cases were reported from the Islamic Republic of Iran (18 771 new cases; 22.3 new cases per 100 000; +268%), the United Arab Emirates (5481 new cases; 55.4 new cases per 100 000; +96%), and Qatar (4826 new cases; 167.5 new cases per 100 000; +139%).

The number of new 28-day deaths in the Region increased by 118% as compared to the previous 28-day period, with 537 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (418 new deaths; <1 new death per 100 000; +243%), Lebanon (33 new deaths; <1 new death per 100 000; -21%), and Tunisia (31 new deaths; <1 new death per 100 000; +35%).

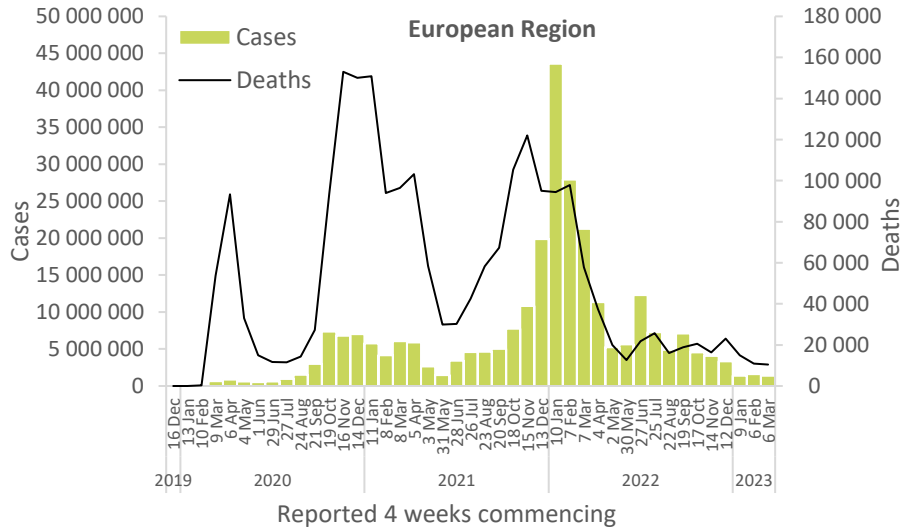


Updates from the Eastern Mediterranean Region

European Region

The European Region reported over 1.3 million new cases, a 13% decrease as compared to the previous 28-day period. Twenty-two (36%) 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 Ukraine (66 723 vs 26 127 new cases; +155%), Bulgaria (3131 vs 1452 new cases; +116%), and France (193 359 vs 97 903 new cases; +98%). The highest numbers of new cases were reported from the Russian Federation (313 998 new cases; 215.2 new cases per 100 000; -9%), France (193 359 new cases; 297.3 new cases per 100 000; +98%), and Germany (139 261 new cases; 167.4 new cases per 100 000; -64%).

The number of new 28-day deaths in the Region decreased by 5% as compared to the previous 28-day period, with 10 417 new deaths reported. The highest numbers of new deaths were reported from the United Kingdom (2678 new deaths; 3.9 new deaths per 100 000; -7%), Germany (1090 new deaths; 1.3 new deaths per 100 000; -39%), and the Russian Federation (1014 new deaths; <1 new death per 100 000; similar with the previous 28-day).

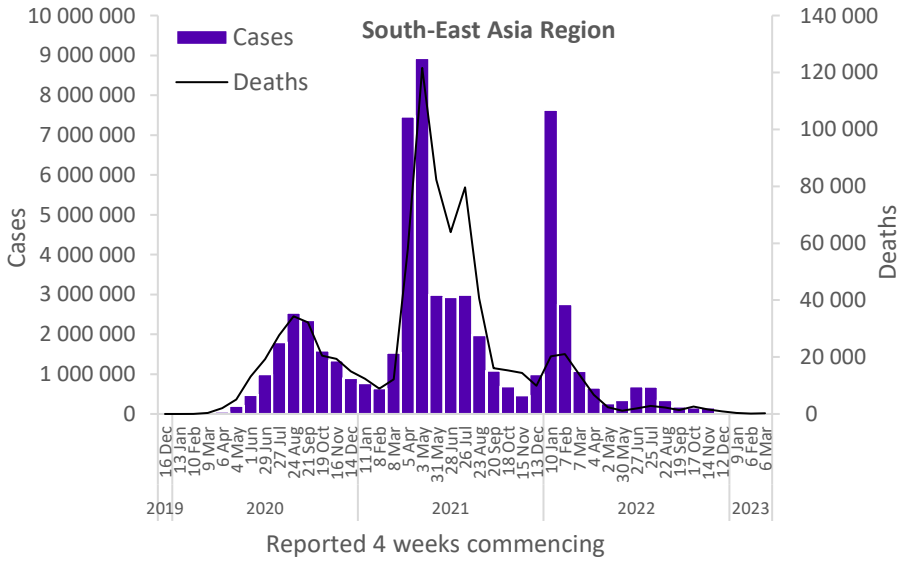


Updates from the European Region

South-East Asia Region

The South-East Asia Region reported over 46 000 new cases, a 289% increase as compared to the previous 28-day period. Seven (64%) 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 India (34 785 vs 4457 new cases; +680%), Nepal (272 vs 43 new cases; +533%), and the Maldives (72 vs 17 new cases; +324%). The highest numbers of new cases were reported from India (34 785 new cases; 2.5 new cases per 100 000; +680%), Indonesia (10 204 new cases; 3.7 new cases per 100 000; +69%), and Thailand (617 new cases; <1 new case per 100 000; -35%).

The number of new 28-day deaths in the Region increased by 36% as compared to the previous 28-day period, with 228 new deaths reported. The highest numbers of new deaths were reported from India (106 new deaths; <1 new death per 100 000; +253%), Indonesia (97 new deaths; <1 new death per 100 000; -1%), and Thailand (20 new deaths; <1 new death per 100 000; -44%).

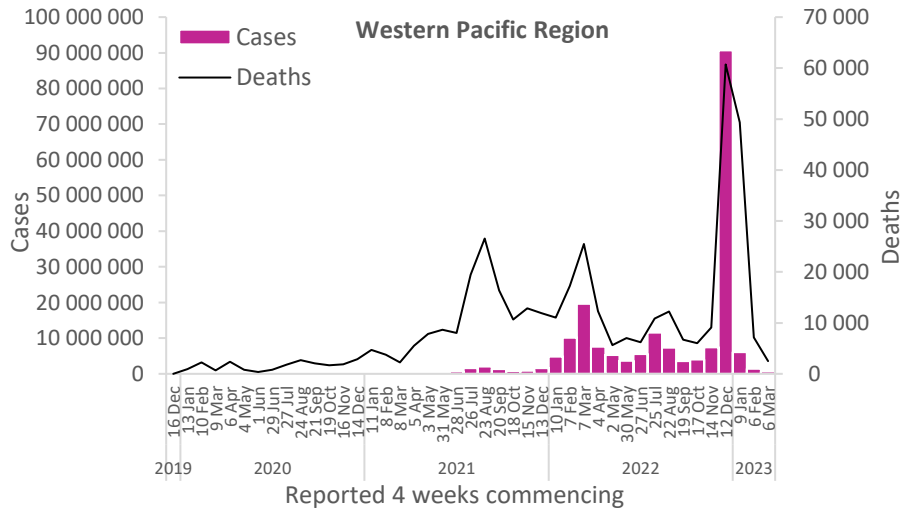


Updates from the South-East Asia Region

Western Pacific Region

The Western Pacific Region reported over 736 000 new cases, a 48% decrease as compared to the previous 28-day period. Seven (20%) of the 35 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Samoa (248 vs 25 new cases; +892%), the Marshall Islands (364 vs 65 new cases; +460%), and Micronesia (Federated States of) (1508 vs 524 new cases; +188%). The highest numbers of new cases were reported from the Republic of Korea (271 162 new cases; 528.9 new cases per 100 000; -11%), Japan (202 631 new cases; 160.2 new cases per 100 000; -61%), and China (136 071 new cases; 9.2 new cases per 100 000; -69%).

The number of new 28-day deaths in the Region decreased by 65% as compared to the previous 28-day period, with 2494 new deaths reported. The highest numbers of new deaths were reported from Japan (1168 new deaths; <1 new death per 100 000; -65%), China (715 new deaths; <1 new death per 100 000; -73%), and the Republic of Korea (247 new deaths; <1 new death per 100 000; -41%).



Updates from the Western Pacific Region

Hospitalizations and ICU admissions

At the global level, during the past 28 days (27 February to 26 March 2023), a total of 63 376 new hospitalizations and 2561 new intensive care unit (ICU) admissions were reported. This represents a 0.4% increase in new hospitalizations and a 2% reduction in ICU admissions compared to the previous 28 days (30 January to 26 February 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, 50 (21%) 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 (seven countries; 32%), the South-East Asia Region (three countries; 27%), the African Region (nine countries; 18%), the Region of the Americas (five countries; 9%), and the Western Pacific Region (three countries; 9%). The proportion of countries that consistently[v] reported new hospital admissions for the period was 13% (31 countries).

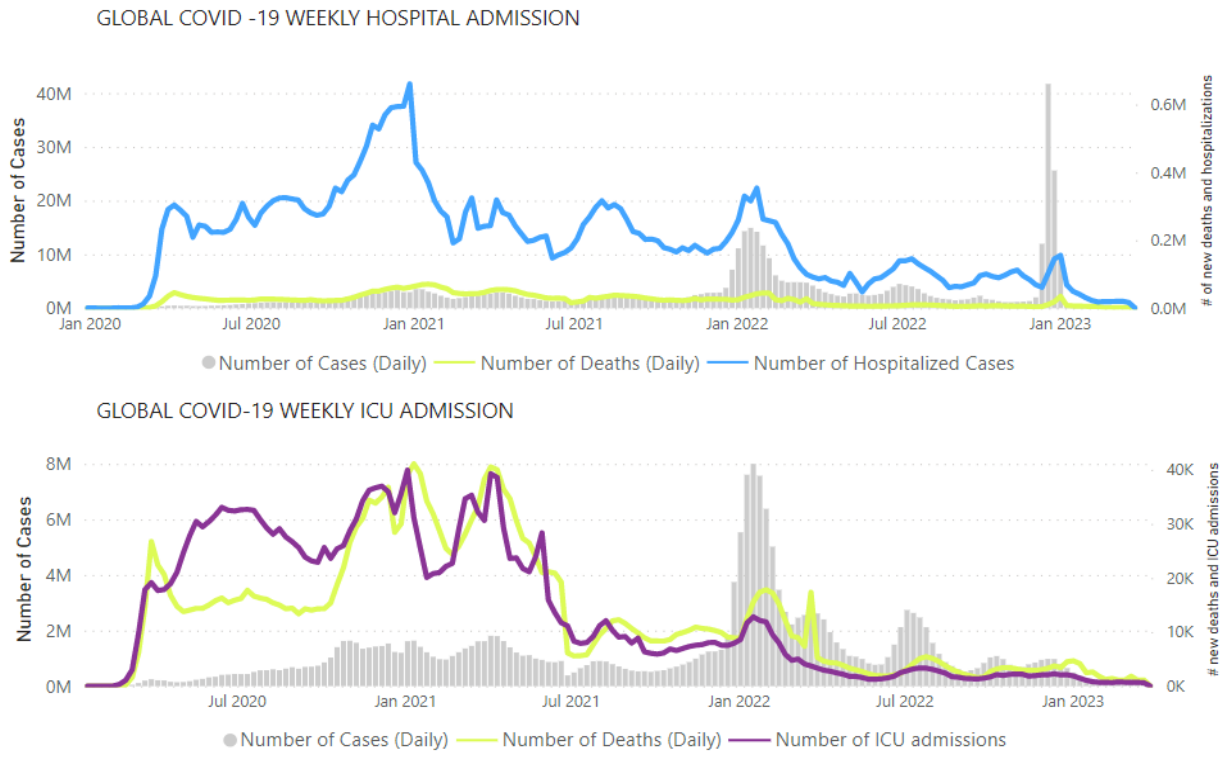
Among the 31 countries consistently reporting new hospitalizations, nine (29%) countries registered an increase of 20% or greater in hospitalizations during the past 28 days compared to the previous 28-day period: Qatar (120 vs 48; +150%), Bosnia and Herzegovina (207 vs 123; +68%), the Netherlands (2880 vs 1744; +65%), Ukraine (16 535 vs 11 376; +45%), Malta (73 vs 51; +43%), Belgium (3644 vs 2593; +41%), France (9040 vs 7163; +26%), Latvia (616 vs 497; +24%), and Kyrgyzstan (55 vs 45; +22%). The highest number of new hospitalizations was reported from Ukraine (16 535 vs 11 376; +45%), France (9040 vs 7163; +26%), and Italy (4398 vs 6376; -31%).

Across the six WHO regions, in the past 28 days, a total of 37 (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 Western Pacific Region (five countries; 14%), the South-East Asia Region (one country; 9%), the African Region (four countries; 8%), and the Region of the Americas (four countries; 7%). The proportion of countries that consistently [v] reported new ICU admissions for the period was 11% (25 countries).

Among the 25 countries consistently [v] reporting new ICU admissions, eight (32%) countries showed an increase of 20% or greater in new ICU admissions during the past 28 days compared to the previous 28-day period: Brunei Darussalam (four vs one; +300%), Netherlands (179 vs 103; 74%), Pakistan (21 vs 13; +62%), Estonia (eight vs five; +60%), Chile (43 vs 27; +59%), Czechia (128 vs 98; +31%), and Qatar (five vs four; +25%). The highest numbers of new ICU admissions were reported from France (852 vs 715; +19%), Ukraine (458 vs 418; +10%), and Italy (179 vs 103; +74%).

[v] "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 26 March 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 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.[5]

References

1. Cohen C, Kleynhans J, von Gottberg A, et al. SARS-CoV-2 incidence, transmission, and reinfection in a rural and an urban setting: results of the PHIRST-C cohort study, South Africa, 2020–21. *The Lancet Infectious Diseases*. 2022;22(6):821-834. doi:10.1016/S1473-3099(22)00069-X

2. Coronavirus (COVID-19) Infection Survey, UK: 4 November 2022 - Office for National Statistics. Accessed November 21, 2022. https://www.ons.gov.uk/releases/coronaviruscovid19infectionsurveyuk4november2022

3. Parikh S, O'Laughlin K, Ehrlich HY, et al. Point Prevalence Testing of Residents for SARS-CoV-2 in a Subset of Connecticut Nursing Homes. *JAMA*. 2020;324(11):1101-1103. doi:10.1001/jama.2020.14984

4. Real-time dashboard. Coronavirus disease 2019. Accessed November 15, 2022. https://covid19.sph.hku.hk/dashboard

5. Chen Z, Azman AS, Chen X, et al. Global landscape of SARS-CoV-2 genomic surveillance and data sharing. *Nature genetics*. 2022;54(4). doi:10.1038/s41588-022-01033-y

COVID-19 Weekly Epidemiological Update

Edition 138 published 13 April 2023

In this edition:

- Global overview
- SARS-CoV-2 variants of interest and variant of concern
- Vaccine effectiveness of primary series and booster vaccination against the Omicron variant of concern
- WHO regional overviews
- Hospitalizations and ICU admissions
- Special focus: Updated Interim Guidance on Adjusting Public Health and Social Measures for COVID-19

Global overview

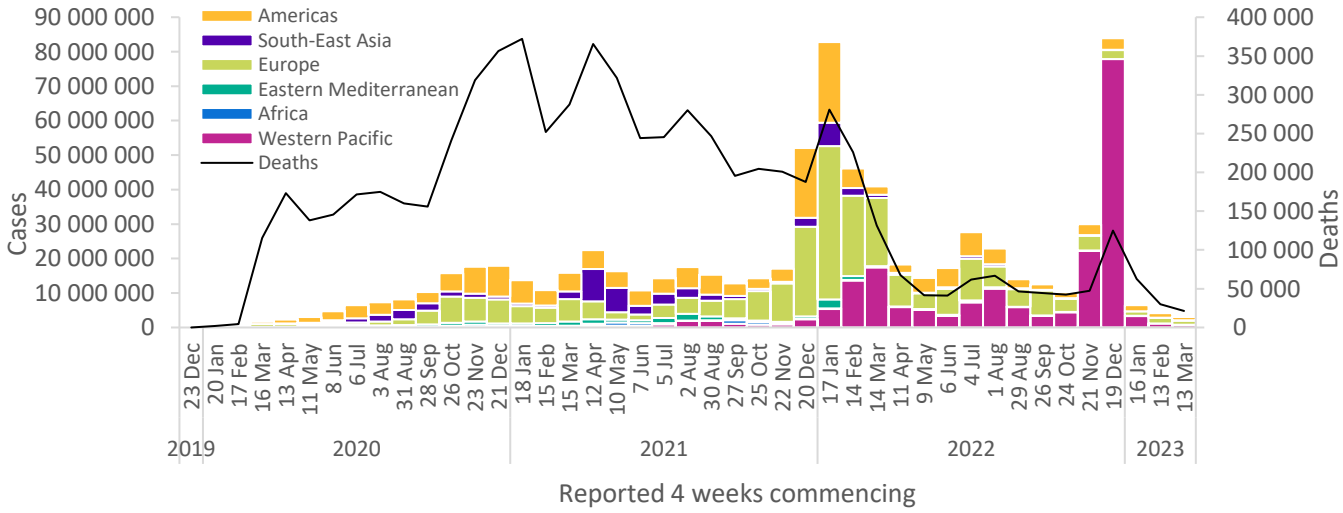
Data as of 9 April 2023

Globally, 3 million new cases and over 23 000 deaths were reported in the last 28 days (13 March to 9 April 2023), a decrease of 28% and 30%, respectively, compared to the previous 28 days (13 February to 12 March 2023) (Figure 1, Table 1). Contrary to the overall trend, important increases in reported cases and deaths were seen in the South-East Asia and Eastern Mediterranean regions and in several individual countries elsewhere. As of 9 April 2023, over 762 million confirmed cases and over 6.8 million deaths have been reported globally.

Current trends in reported COVID-19 cases continue to be underestimates of the true number of global infections and reinfections as shown by prevalence surveys.[1-4] 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 9 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 (-45%), the Western Pacific Region (-39%), the Region of the Americas (-33%), and the European Region (-22%); while case numbers increased in two WHO regions: the South-East Asia Region (+481%) and the Eastern Mediterranean Region (+144%). The number of newly reported 28-day deaths decreased across four regions: the Western Pacific Region (-62%), the Region of the Americas (-37%), the African Region (-24%), and the European Region (-12%); while death numbers increased in two WHO regions: the Eastern Mediterranean Region (+138%), and the South-East Asia Region (+109%).

At the country level, the highest numbers of new 28-day cases were reported from the United States of America (455 939 new cases; -50%), the Russian Federation (291 895 new cases; -17%), the Republic of Korea (275 126 new cases; similar to previous 28-day period), Brazil (233 734 new cases; +51%), and France (213 308 new cases; +92%). The highest numbers of new 28-day deaths were reported from the United States of America (5571 new deaths; -40%), the United Kingdom (2708 new deaths; -13%), Brazil (1246 new deaths; -24%), the Russian Federation (984 new deaths; - similar to previous 28-day period), and Germany (903 new deaths; -52%).

Table 1. Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 9 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	1 257 642 (42%)	-22%	**275 084 829 (36%)**	9 844 (47%)	-12%	**2 212 084 (32%)**
Americas	882 336 (29%)	-33%	**191 814 966 (25%)**	8 237 (39%)	-37%	**2 945 187 (43%)**
Western Pacific	719 015 (24%)	-39%	**202 141 741 (27%)**	2 019 (10%)	-62%	**409 523 (6%)**
South-East Asia	80 039 (3%)	481%	**60 854 783 (8%)**	309 (1%)	109%	**804 217 (12%)**
Eastern Mediterranean	52 530 (2%)	144%	**23 323 416 (3%)**	718 (3%)	138%	**350 417 (5%)**
Africa	9 155 (<1%)	-45%	**9 519 401 (1%)**	22 (<1%)	-24%	**175 337 (3%)**
Global	**3 000 717 (100%)**	**-28%**	**762 739 900 (100%)**	**21 149 (100%)**	**-30%**	**6 896 778 (100%)**

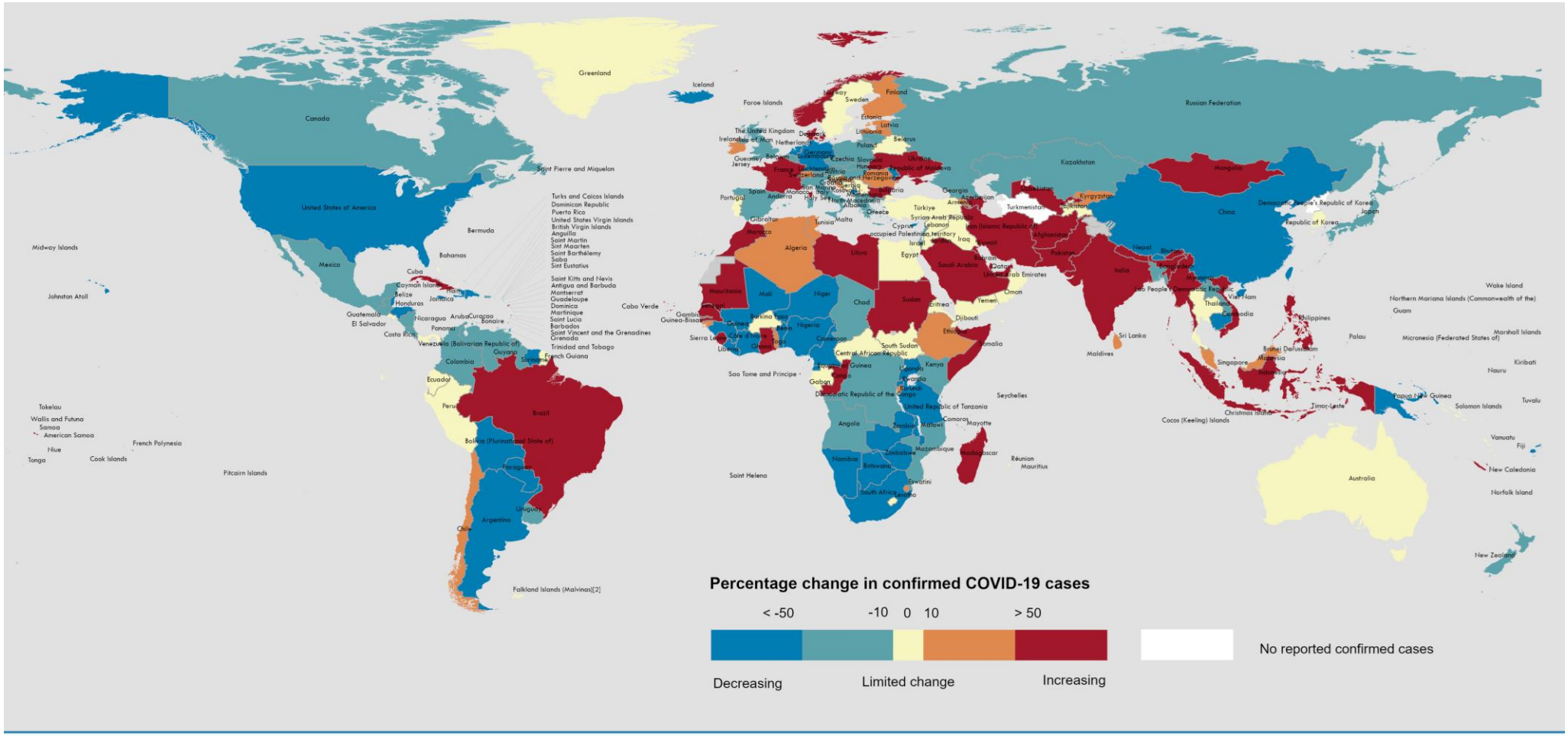
**Percent change in the number of newly confirmed cases/deaths in the past 28 days, compared to 28 days prior. Data from previous weeks are updated continuously with adjustments received from countries.*

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

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

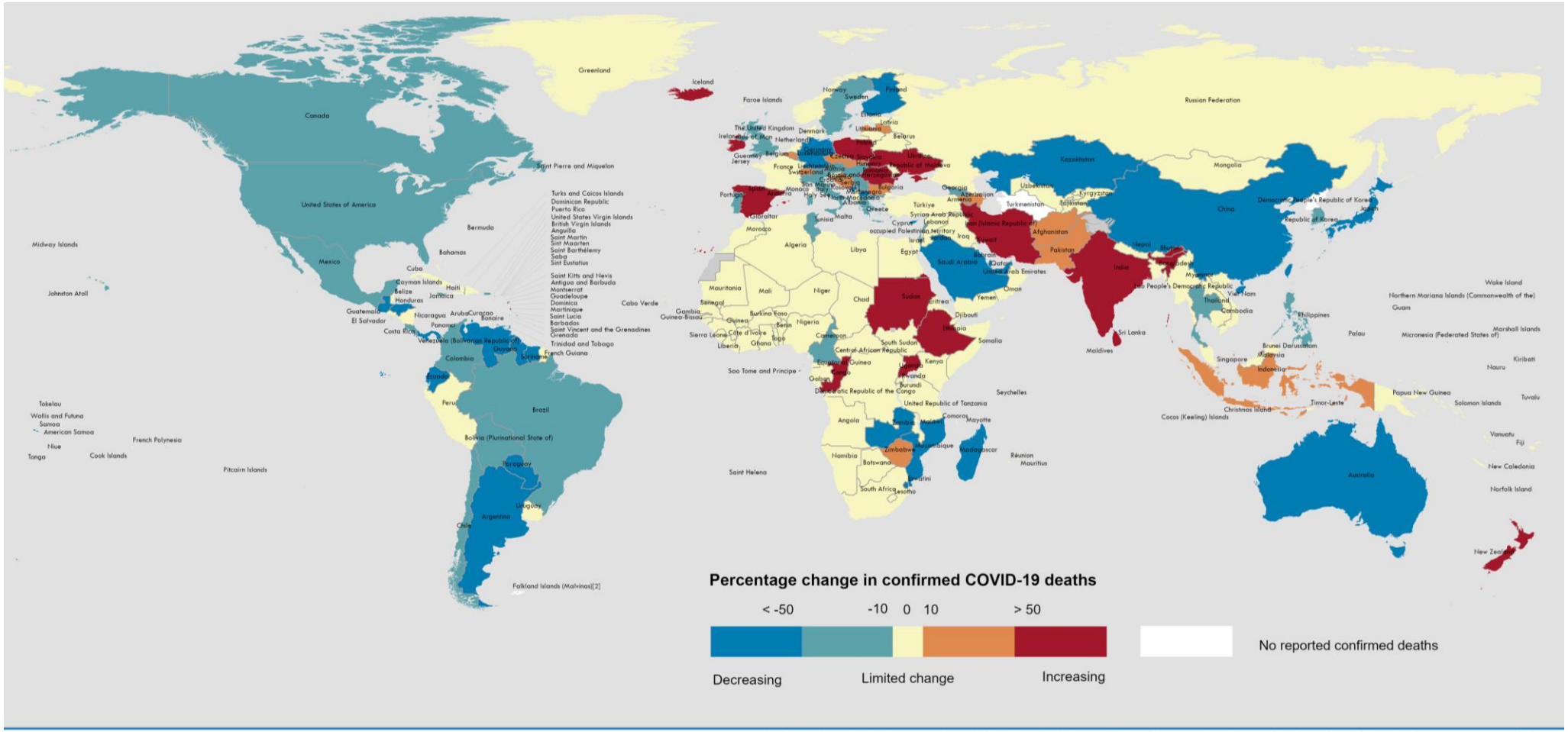
- WHO COVID-19 Dashboard
- WHO Monthly Operational Update and past editions of the Weekly Epidemiological Update on COVID-19
- WHO COVID-19 detailed surveillance data dashboard
- WHO COVID-19 policy briefs

Figure 2. Percentage change in confirmed COVID-19 cases over the last 28 days relative to the previous 28 days, as of 9 April 2023**



**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 9 April 2023**



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

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. [1] All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). Number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes. [2] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas). Data for Bonaire, Sint Eustatius and Saba have been disaggregated and displayed at the subnational level.

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

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

Geographic spread and prevalence

Globally, from 13 March to 9 April 2023 (28 days), 49 809 SARS-CoV-2 sequences were shared through GISAID.

Currently, WHO is closely tracking one variant of interest (VOI), XBB.1.5, and seven variants under monitoring (VUMs) and their descendent lineages. The VUMs are BA.2.75*, CH.1.1*, BQ.1*, XBB* (excluding XBB.1.5*, XBB.1.16* and XBB.1.9.1*), XBB.1.16*, XBB.1.9.1*, and XBF*.

Globally, XBB.1.5 (VOI) has been detected in 95 countries and continues to be the most prevalent variant, accounting for 47.9% of cases in epidemiological week 12 (20 to 26 March 2023) compared to 39.8% in week 8 (20 to 26 February 2023). Table 2 shows the number of countries reporting the VOI and VUMs, and their prevalence from week 8 to week 12. Between 11 February and 12 March, 2023, 70 countries detected XBB.1.5 and uploaded sequencing data to GISAID, and among 43 countries that uploaded more than 50 sequences, the prevalence of XBB.1.5 has reached more than 50% in 11 countries. Figure 4 shows the global prevalence of XBB.1.5 over a 30-day period based on available data.

A comparison of sequences submitted to GISAID from week 8 to week 12 shows that among variants under monitoring (VUMs), XBB* (excluding XBB.1.5*, XBB.1.16* and XBB.1.9.1*), XBB.1.9.1* and XBB.1.16* have shown increasing trends. These three VUMs accounted for 17.6%, 7.6% and 4.0% of sequences respectively in week 12, as compared to 6.7%, 3.0% and 0.2% in week 8. Other VUMs have presented declining trends during the same period.

There are currently no reported laboratory or country reports associating the VOI and VUMs with increased disease severity. A recent laboratory study on XBB.1.16 shows the variant to have an increased growth rate compared to XBB and XBB.1.5 respectively. However, their immune evasion characteristics are similar.[5]

The global trend of the number and percentage of SARS-CoV-2 sequences is shown in Figure 5. With the declining testing and sequencing trends observed globally, the severity impact of SARS-CoV-2 variants with mutations that confer higher transmissibility remains unclear. Low and unrepresentative levels of SARS-CoV-2 genomic surveillance continue to pose challenges in adequately assessing the SARS-CoV-2 variant landscape.

Additional resources

- Tracking SARS-CoV-2 Variants
- WHO XBB.1.5 rapid risk assessment, 24 February 2023
- TAG-VE statement on Omicron sublineages BQ.1 and XBB, 27 October 2022
- 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

*includes descendant lineages except those individually specified elsewhere

Table 2. Weekly prevalence of SARS-CoV-2 VOIs and VUMs, week 8 to week 12 of 2023

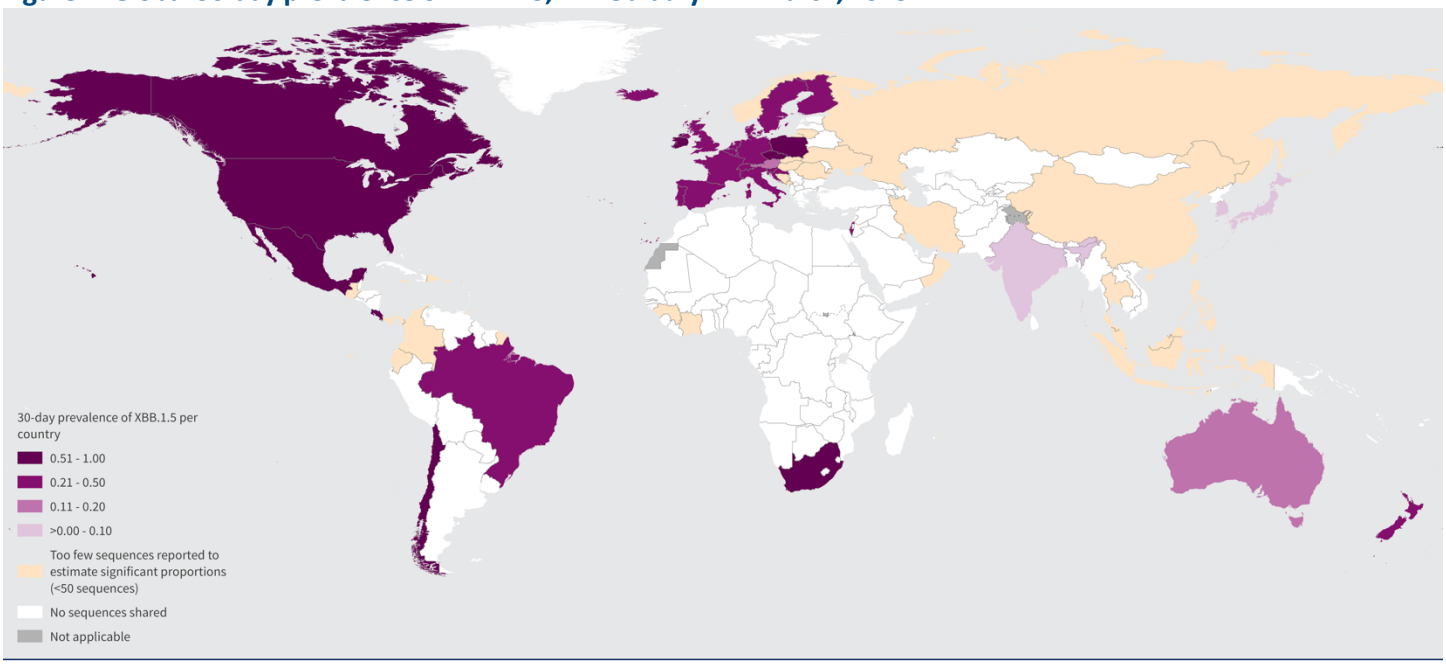
Lineage	Countries	Sequences	2023-08	2023-09	2023-10	2023-11	2023-12
XBB.1.5* (VOI)	95	154 278	43.50	46.01	47.02	47.03	47.91
BA.2.75*	121	105 680	5.91	5.18	4.98	4.78	1.95
CH.1.1*	88	40 873	6.69	6.43	5.70	5.49	5.17
BQ.1*	142	411 323	15.01	11.21	9.21	7.56	5.11
XBB*	122	80 144	6.69	8.39	11.64	14.33	17.64
XBB.1.9.1*	61	10 432	3.01	4.29	5.28	6.15	7.59
XBF*	49	8 852	1.24	1.09	1.23	0.97	0.83
Unassigned	98	292 966	8.78	10.57	9.03	9.45	10.40
Other[+]	207	6 692 332	1.08	1.09	1.06	1.04	1.67
XBB.1.16[§]	29	2222	0.21	0.53	1.21	1.92	3.96

* includes descendant lineages except those individually specified elsewhere.

§ The prevalence of XBB.1.16 was extracted from GISAID on 11 April 2023 using the nucleotides T12730A, T28297C, A28447G.

+ Others are other circulating lineages excluding the VOI, VUMs, BA.1*, BA.2*, BA.3*, BA.4*, BA.5*.

Figure 4. Global 30-day prevalence of XBB.1.5, 11 February - 12 March, 2023



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

Data Source: World Health Organization, Global Initiative on Sharing Avian Influenza Data
Map Production: WHO Health Emergencies Programme
Map Date: 6 April 2023

World Health Organization

Figure 5. Panel A and B: The number and percentage of SARS-CoV-2 sequences globally, from 1 October 2022 to 25 March 2023

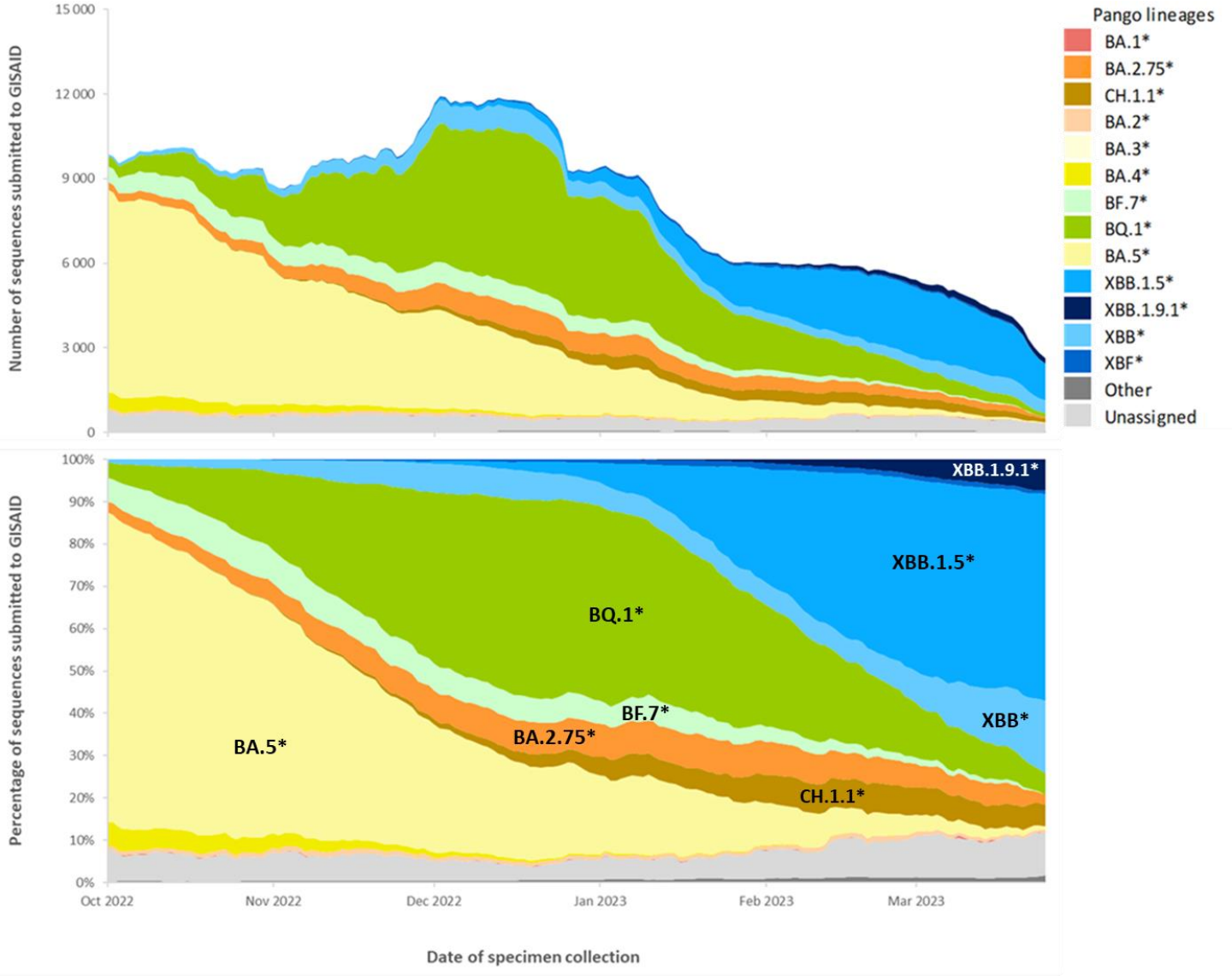


Figure 5 Panel A shows the number, and **Panel B** the percentage, of all circulating variants since October 2022. Omicron sister-lineages and additional Omicron VOC descendent lineages under further monitoring are shown. *BA.1*, BA.2*, BA.3*, BA.4* and BA.5** (* indicates inclusion of descendent lineages) include all BA.1, BA.2, BA.3, BA.4 and BA.5 pooled descendent lineages, except currently circulating variants shown individually. The *Unassigned* category includes lineages pending for a PANGO lineage name, whereas the *Other* category includes lineages that are assigned but not listed in the legend. As XBB.1.16* has not been assigned in GISAID, it is not shown individually. Source: SARS- CoV-2 sequence data and metadata from GISAID, from 1 October 2022 to 25 March 2023.

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

Vaccine Effectiveness

Forest plots displaying the effectiveness of COVID-19 vaccines against the Omicron variant of concern (VOC) are available on View-hub.org and updated regularly (last updated 6 April 2023). All data are collected as part of an ongoing systematic review of COVID-19 vaccine effectiveness (VE) studies (methods described here). COVID-19 VE results are summarized in the following plots, where data are available:

- VE of primary series and first booster dose by vaccine for all vaccines
- VE for various sub-populations of interest
- Absolute and relative VE of a second booster dose (for more information on interpreting relative VE, see the special focus on relative vaccine effectiveness from the 29 June 2022 Weekly Epidemiological Update)
- Duration of VE over time for vaccines
- Absolute VE of bivalent vaccines given as a first, second, or third booster dose

In summary, findings from COVID-19 VE studies show reduced VE of primary series vaccines against the Omicron variant for all outcomes (*severe disease*, *symptomatic disease*, and *infection*) compared to the index virus and the four previous VOCs (Alpha, Beta, Gamma, and Delta). Importantly though, VE estimates against the Omicron variant remain higher for *severe disease* than for other outcomes. 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 first booster vaccination for *symptomatic disease* and *infection* than it does for *severe disease*. VE of a second booster dose with a monovalent mRNA vaccine showed similar patterns of improved VE followed by waning, as after the first booster dose. Emerging evidence on mRNA bivalent vaccines, which contain both the ancestral strain and the Omicron strain, show that a bivalent vaccine given as a first, second, or third booster dose improves protection against *symptomatic disease* and *severe disease* compared to unvaccinated persons; in addition, persons receiving a bivalent vaccine given as a second or third booster dose had improved protection compared to persons receiving a monovalent mRNA vaccine as a first or second booster dose, respectively. However, because the bivalent mRNA vaccines have been evaluated during different time periods than the monovalent mRNA vaccines, direct comparison in observational VE studies has proved challenging, due to potential time-related confounding (e.g., time since last vaccine dose, subvariant circulation, incidence rates).

Neutralization

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 systematic review of post-monovalent vaccination neutralization responses to Omicron BA.1, BA.2, BA.3, and BA.4/BA.5. In addition, neutralization plots displaying the results of a living systematic review of neutralization studies are updated regularly on VIEW-hub.org (last updated 9 April 2023) and contain information on more recent subvariants such as BQ.1 and XBB. 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. A recent report suggests that VE against BA.4/BA.5 is likely lower than against BA.1, although the reasons for this finding might be both due to the lower neutralization titers as well as methodological factors in how the VE studies were done. Early evidence suggests even further reductions of neutralization capacity against the new subvariants BQ.1/BQ.1.1 and XBB/XBB.1/XBB.1.5. Primary series neutralization against Omicron (without a booster) was too poor to enable accurate comparisons of reductions for subvariants. Finally, a summary of neutralization responses comparing monovalent to bivalent mRNA vaccines is also available on VIEW-hub.org, providing preliminary evidence of improved performance of bivalent vaccines against more recent Omicron subvariants.

WHO regional overviews

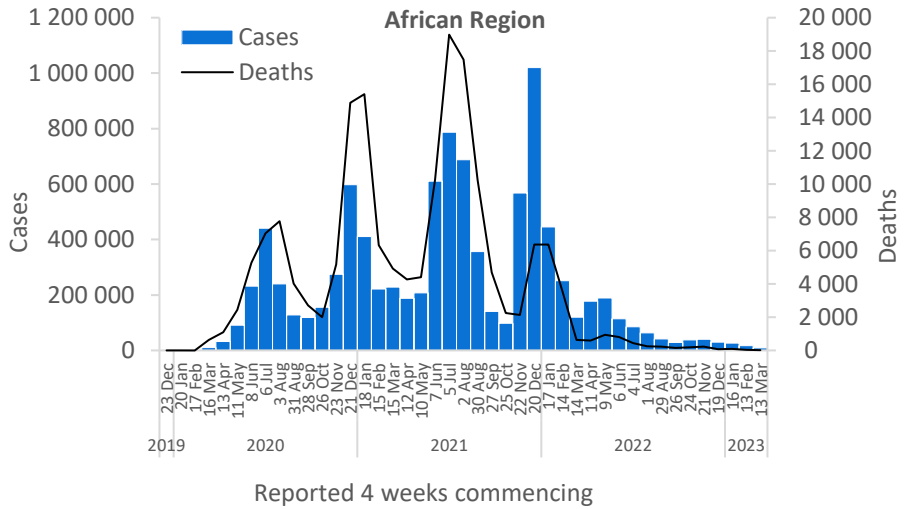
Data for 13 March to 9 April 2023

African Region

The African Region reported over 9155 new cases, a 45% decrease as compared to the previous 28-day period. Ten (20%) 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 Sao Tome and Principe (219 vs one new cases; +21800%), Mauritania (122 vs two new cases; +6000%), and Cabo Verde (33 vs 10 new cases; +230%).

The highest numbers of new cases were reported from South Africa (4309 new cases; 7.3 new cases per 100 000; -54%), Mauritius (1372 new cases; 107.9 new cases per 100 000; similar to previous 28-day period), and Ethiopia (557 new cases; <1 new case per 100 000; +43%).

The number of new 28-day deaths in the Region decreased by 24% as compared to the previous 28-day period, with 22 new deaths reported. The highest numbers of new deaths were reported from Zimbabwe (12 new deaths; <1 new death per 100 000; +20%), Cameroon (two new deaths; <1 new death per 100 000; -33%), and Sao Tome and Principe (two new deaths; <1 new death per 100 000; no death reported the previous 28-day period).



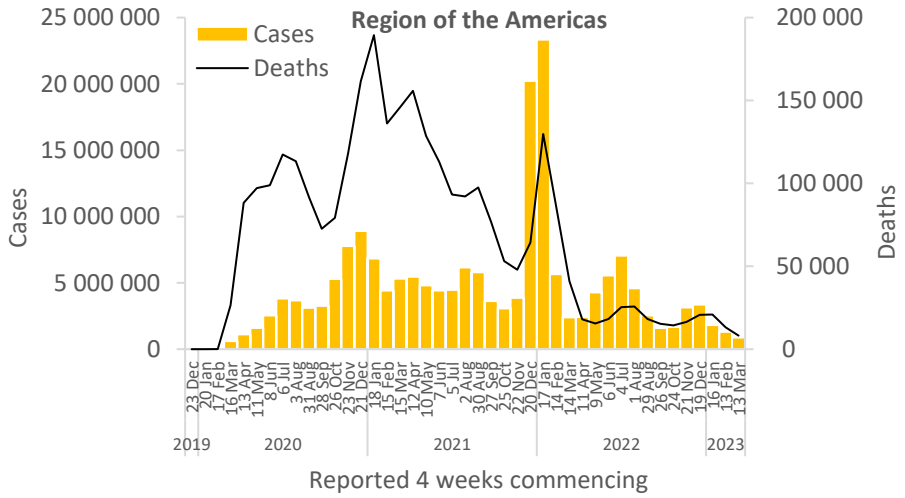
Updates from the African Region

Region of the Americas

The Region of the Americas reported over 882 000 new cases, a 33% 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 (71 vs one new cases; +7000%), Saint Barthélemy (29 vs 14 new cases; +107%) and Cuba (216 vs 124 new cases; +74%).

The highest numbers of new cases were reported from the United States of America (455 939 new cases; 137.7 new cases per 100 000; -50%), Brazil (233 734 new cases; 110.0 new cases per 100 000; +51%), and Chile (72 988 new cases; 381.8 new cases per 100 000; +17%).

The number of new 28-day deaths in the Region decreased by 37% as compared to the previous 28-day period, with 8237 new deaths reported. The highest numbers of new deaths were reported from the United States of America (5571 new deaths; 1.7 new deaths per 100 000; -40%), Brazil (1246 new deaths; <1 new death per 100 000; -24%), and Canada (443 new deaths; 1.2 new deaths per 100 000; -35%).



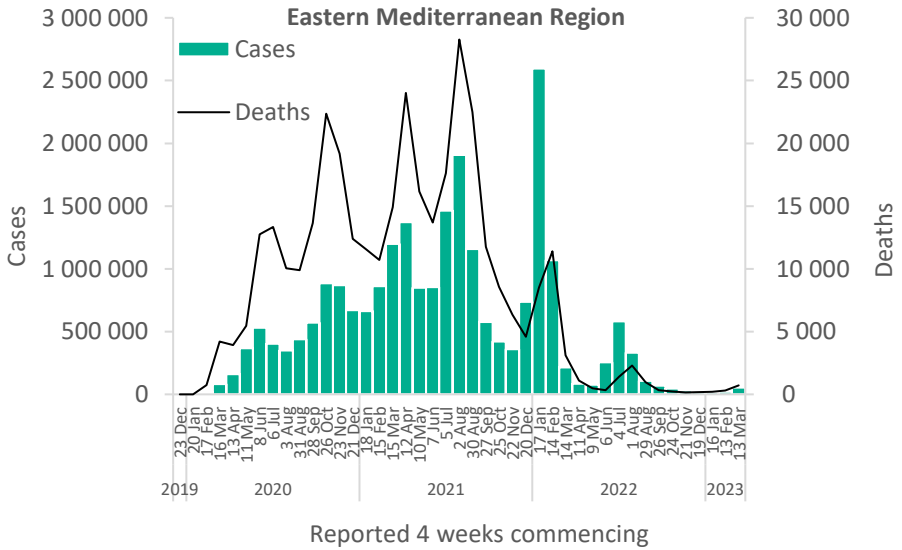
Updates from the Region of the Americas

Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 52 000 new cases, a 145% increase as compared to the previous 28-day period. Twelve (55%) 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 Somalia (10 vs two new cases; +400%), Saudi Arabia (5903 vs 1807 new cases; +227%), and Qatar (7018 vs 2165 new cases; +224%).

The highest numbers of new cases were reported from the Islamic Republic of Iran (24 654 new cases; 29.4 new cases per 100 000; +210%), Qatar (7018 new cases; 243.6 new cases per 100 000; +224%), and Saudi Arabia (5903 new cases; 17.0 new cases per 100 000; +227%).

The number of new 28-day deaths in the Region increased by 138% as compared to the previous 28-day period, with 718 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (615 new deaths; <1 new death per 100 000; +247%), Lebanon (31 new deaths; <1 new death per 100 000; -24%), and Tunisia (22 new deaths; <1 new death per 100 000; -24%).



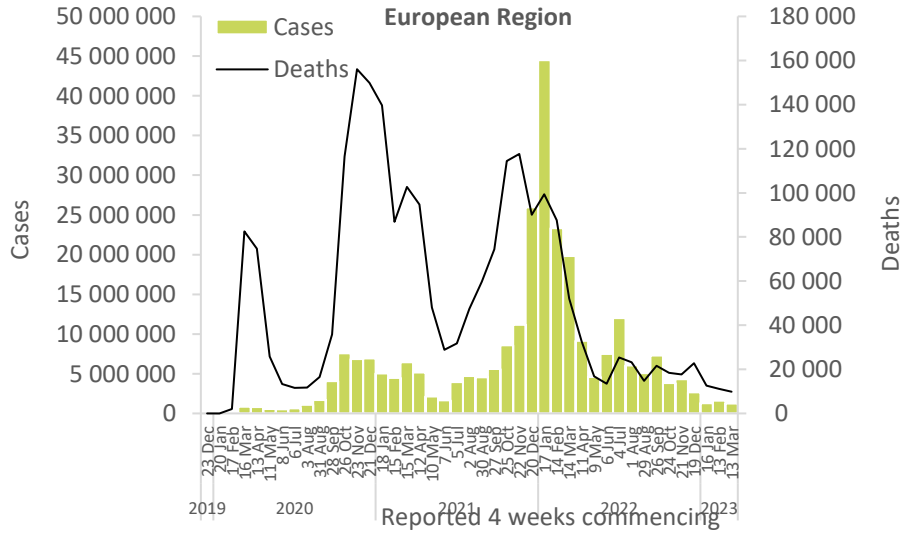
Updates from the Eastern Mediterranean Region

European Region

The European Region reported over one million new cases, a 22% decrease as compared to the previous 28-day period. Seventeen (28%) 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 Ukraine (72 948 vs 35 176 new cases; +107%), Azerbaijan (1395 vs 696 new cases; +100%) and Monaco (52 vs 26 new cases; +100%).

The highest numbers of new cases were reported from the Russian Federation (291 895 new cases; 200.0 new cases per 100 000; -17%), France (213 308 new cases; 328.0 new cases per 100 000; +92%), and Germany (108 787 new cases; 130.8 new cases per 100 000; -68%).

The number of new 28-day deaths in the Region decreased by 12% as compared to the previous 28-day period, with 9844 new deaths reported. The highest numbers of new deaths were reported from the United Kingdom (2708 new deaths; 4.0 new deaths per 100 000; -13%), the Russian Federation (984 new deaths; <1 new death per 100 000; similar to previous 28-day period), and Germany (903 new deaths; 1.1 new deaths per 100 000; -52%).



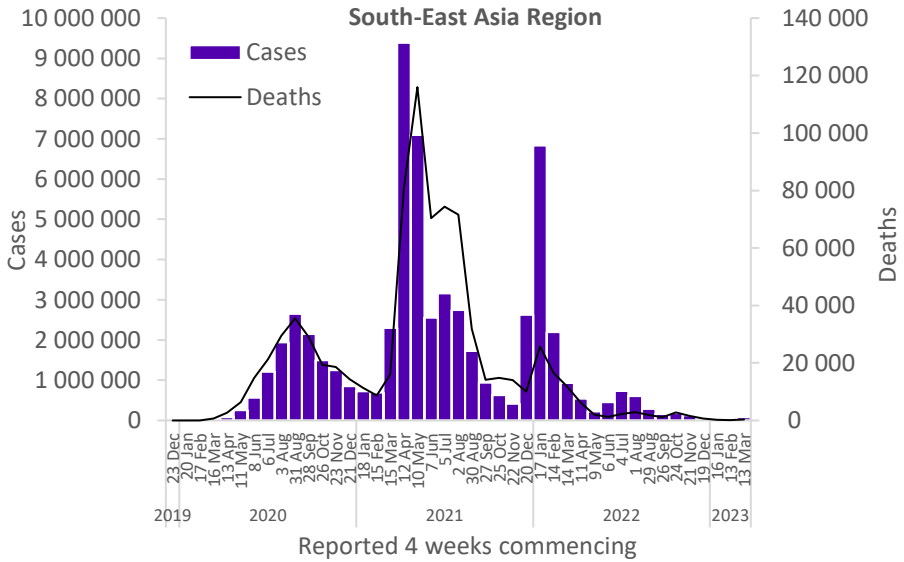
Updates from the European Region

South-East Asia Region

The South-East Asia Region reported over 80 000 new cases, a 481% increase as compared to the previous 28-day period. Seven (64%) 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 (636 vs 49 new cases; +1198%), India (66 124 vs 6 374 new cases; +937%) and the Maldives (150 vs 21 new cases; +614%).

The highest numbers of new cases were reported from India (66 124 new cases; 4.8 new cases per 100 000; +937%), Indonesia (12 101 new cases; 4.4 new cases per 100 000; +93%), and Thailand (663 new cases; <1 new case per 100 000; -2%).

The number of new 28-day deaths in the Region increased by 109% as compared to the previous 28-day period, with 309 new deaths reported. The highest numbers of new deaths were reported from India (184 new deaths; <1 new death per 100 000; +494%), Indonesia (104 new deaths; <1 new death per 100 000; +24%), and Thailand (16 new deaths; <1 new death per 100 000; -47%).



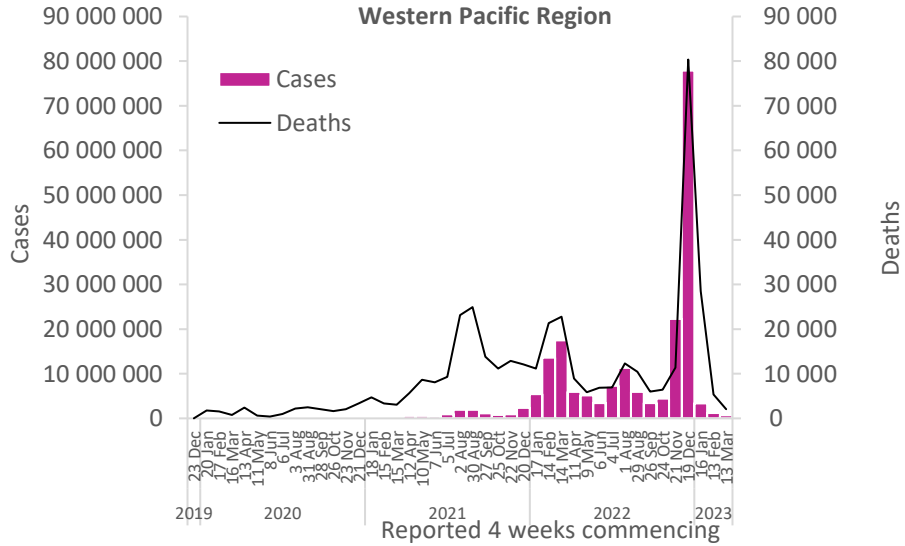
Updates from the South-East Asia Region

Western Pacific Region

The Western Pacific Region reported over 719 000 new cases, a 39% 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 Samoa (248 vs 25 new cases; +892%), Marshall Islands (364 vs 59 new cases; +517%) and American Samoa (five vs one new cases; +400%).

The highest numbers of new cases were reported from the Republic of Korea (275 126 new cases; 536.6 new cases per 100 000; similar to previous 28-day period), Japan (193 326 new cases; 152.9 new cases per 100 000; -48%), and Australia (76 114 new cases; 298.5 new cases per 100 000; similar to previous 28-day period).

The number of new 28-day deaths in the Region decreased by 62% as compared to the previous 28-day period, with 2019 new deaths reported. The highest numbers of new deaths were reported from Japan (882 new deaths; <1 new death per 100 000; -65%), China (393 new deaths; <1 new death per 100 000; -75%), and Australia (218 new deaths; <1 new death per 100 000; -60%).



Updates from the Western Pacific Region

Hospitalizations and ICU admissions

At the global level, during the past 28 days (6 March to 2 April 2023), a total of 69 821 new hospitalizations and 2652 new intensive care unit (ICU) admissions were reported. This represents a 0.2% increase in new hospitalizations and a 7% reduction in ICU admissions compared to the previous 28 days (6 February to 5 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 are also likely to include both hospitalizations with incidental cases of SARS-CoV-2 infection and those due to COVID-19 disease.

Globally, during the past 28 days, 53 (23%) 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 (eight countries; 14%), and the Western Pacific Region (three countries; 9%). The proportion of countries that consistently[i] reported new hospital admissions for the period was 14% (33 countries).

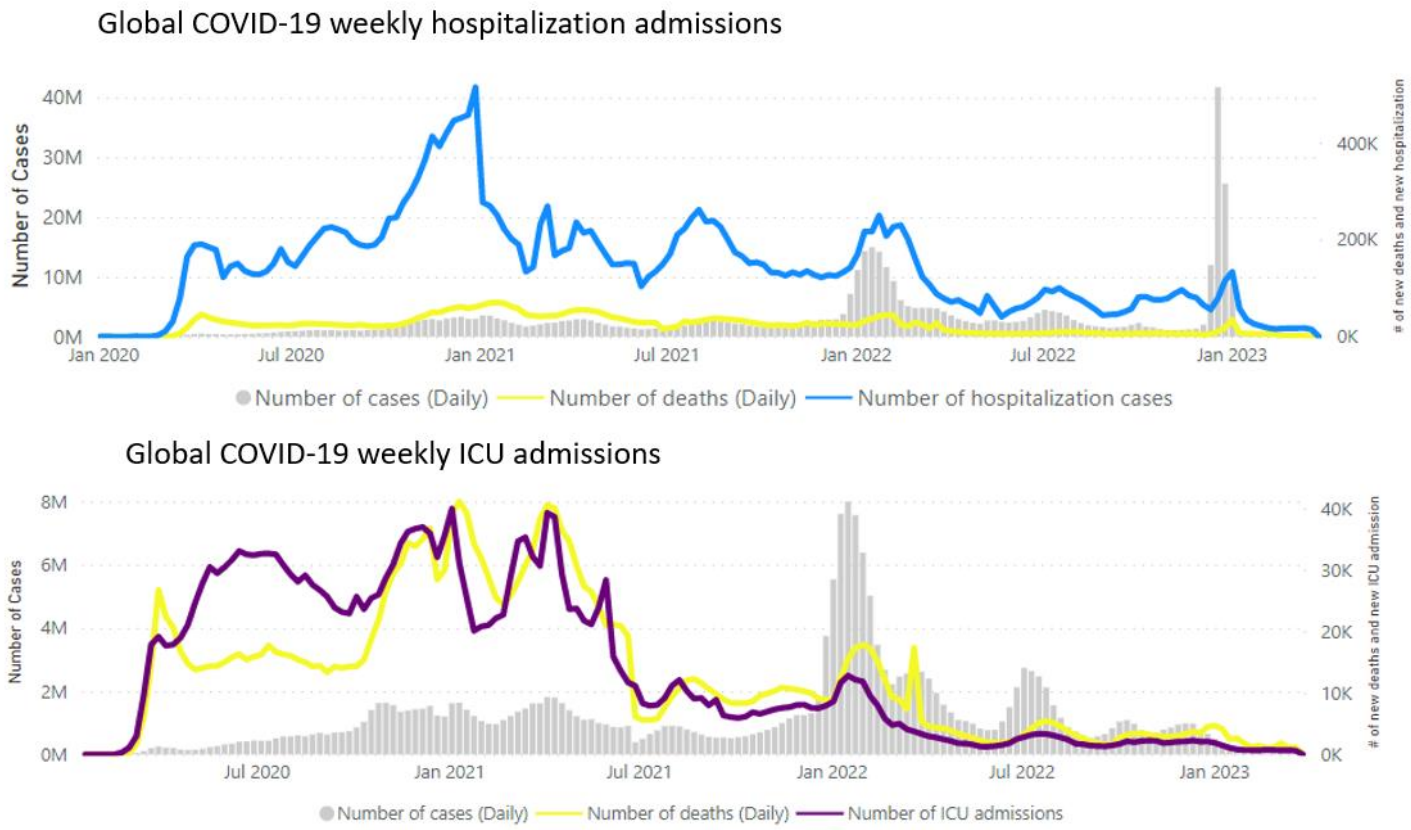
Among the 33 countries consistently reporting new hospitalizations, seven (21%) countries registered an increase of 20% or greater in hospitalizations during the past 28 days compared to the previous 28-day period: Qatar (191 vs 38; +403%), Singapore (984 vs 300; +228%), Iceland (36 vs 24; +50%), France (10 012 vs 7081; +41%), Latvia (707 vs 511; +38%), Ukraine (17195 vs 12618; +36%), and Tunisia (92 vs 71; +30%). The highest numbers of new hospitalizations were reported from Ukraine (17 195 vs 12 618; +36%), France (10 012 vs 7081; +41%), and Italy (4496 vs 10 863; -59%).

Across the six WHO regions, in the past 28 days, a total of 40 (17%) 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 (19 countries; 31%), followed by the Eastern Mediterranean Region (five countries; 23%), the South-East Asia Region (two countries; 18%), the Region of the Americas (six countries; 11%), the African Region (five countries; 10%), and the Western Pacific Region (three countries; 9%). The proportion of countries that consistently reported new ICU admissions for the period was 12% (29 countries).

Among the 29 countries consistently reporting new ICU admissions, five (17%) countries showed an increase of 20% or greater in new ICU admissions during the past 28 days compared to the previous 28-day period: Singapore (24 vs 10; +140%), Pakistan (23 vs 10; +130%), Latvia (35 vs 27; +30%), Qatar (5 vs 4; +25%), and France (881 vs 725; +22%). The highest numbers of new ICU admissions were reported from France (881 vs 725; +22%), Ukraine (450 vs 435; +3%), and Australia (181 vs 190; -5%).

[i] "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 6. COVID-19 cases, deaths, hospitalizations, and ICU admissions reported weekly to WHO, as of 2 April 2023



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

Source: WHO Detailed Surveillance Dashboard

Special focus: Updated Interim Guidance on Adjusting Public Health and Social Measures for COVID-19 (30 March 2023)

Public health and social measures (PHSM) have been implemented across the world since the beginning of the COVID-19 pandemic to suppress SARS-CoV-2 transmission, reduce morbidity and mortality and minimize the impact on the health systems and other critical societal functions.

Since the publication of the June 2021 update of *Considerations for implementing and adjusting public health and social measures in the context of COVID-19*, several important developments have occurred. The global population-level immunity against SARS-CoV-2 has increased significantly due to infection and/or vaccination, leading to a decoupling between infection and severe disease surveillance trends, although there remain substantial differences in population immunity and inequity in access to diagnostics and therapeutics between countries and regions. The emergence and spread of the Omicron variant of concern has had multiple impacts on considerations for adjusting PHSM, such as its immune escape properties reducing the ability of infection- or vaccine-derived immunity to prevent infection and transmission and contributing to a rapid growth rate. COVID-19 is not yet an endemic disease, and there is a high risk of additional variants and of cases of post-COVID-19 condition.

In light of these developments, on 30 March 2023, WHO issued the updated interim guidance *Considerations for implementing and adjusting public health and social measures in the context of COVID-19*. The purpose of the updated guidance is to provide recommended epidemiological techniques to assess the current COVID-19 situation with respect to transmissibility, morbidity and mortality, and impact on the health system, to inform the evidence-based adjustment of PHSM. It also provides recommendations about the appropriate PHSM to implement at different levels of severity of the COVID-19 situation ('situational levels').

The key changes from the previous version of this guidance include a shift to qualitative assessment of transmission rather than the use of transmission categories with numeric cut-offs, due to the declining surveillance/testing for SARS-CoV-2 in many countries, which has made it a challenge to rely on reported incidence as a valid indicator of transmission rates. The guidance further shifts the focus of assessment to the dimensions of COVID-19 morbidity/mortality and health system impact. Consequently, the situational level matrix and the wording of each level have been updated. The use of three dimensions for assessment puts this framework in line with the Pandemic Influenza Severity Assessment (PISA) methodology and partially adopts the terminology used in PISA for the three dimensions. Guidance for determining locally-relevant thresholds is provided, similar to the principles used for PISA. Finally, the updated guidance eliminates the recommendation to relax some measures for individuals with infection- or vaccine-induced immunity.

The decisions of which PHSM measures to implement, lift or strengthen, and in which order they should be implemented, should be informed by their acceptability, feasibility, and proven effectiveness, and these decisions should be made through participatory approaches rather than directives and one-way communication. Decisions to tighten, loosen or re-introduce PHSM must be weighed against their health and socio-economic impacts, such as impacts on health, mental health, and psychosocial wellbeing; continuity of other public health programmes; diagnosis, treatment, and management of medical conditions other than COVID-19; and other aspects such as livelihoods, the economy, security, human rights, food security, socioeconomic disparities, and gender-based violence. The overall health and well-being of communities should be at the forefront of considerations when implementing and adjusting PHSM.

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 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.[6]

References

1. Cohen C, Kleynhans J, von Gottberg A, et al. SARS-CoV-2 incidence, transmission, and reinfection in a rural and an urban setting: results of the PHIRST-C cohort study, South Africa, 2020–21. *The Lancet Infectious Diseases*. 2022;22(6):821-834. doi:10.1016/S1473-3099(22)00069-X

2. Coronavirus (COVID-19) Infection Survey, UK: 4 November 2022 - Office for National Statistics. Accessed November 21, 2022. https://www.ons.gov.uk/releases/coronaviruscovid19infectionsurveyuk4november2022

3. Parikh S, O'Laughlin K, Ehrlich HY, et al. Point Prevalence Testing of Residents for SARS-CoV-2 in a Subset of Connecticut Nursing Homes. *JAMA*. 2020;324(11):1101-1103. doi:10.1001/jama.2020.14984

4. Real-time dashboard. Coronavirus disease 2019. Accessed November 15, 2022. https://covid19.sph.hku.hk/dashboard

5. Daichi Yamasoba, Keiya Uriu, Arnon Plianchaisuk, et al. Virological characteristics of the SARS-CoV-2 Omicron XBB.1.16 variant. bioRxiv 2023.04.06.535883; doi: https://doi.org/10.1101/2023.04.06.535883

6. Chen Z, Azman AS, Chen X, et al. Global landscape of SARS-CoV-2 genomic surveillance and data sharing. Nature genetics. 2022;54(4). doi:10.1038/s41588-022-01033-y

COVID-19 Weekly Epidemiological Update

Edition 139 published 20 April 2023

In this edition:

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

Global overview

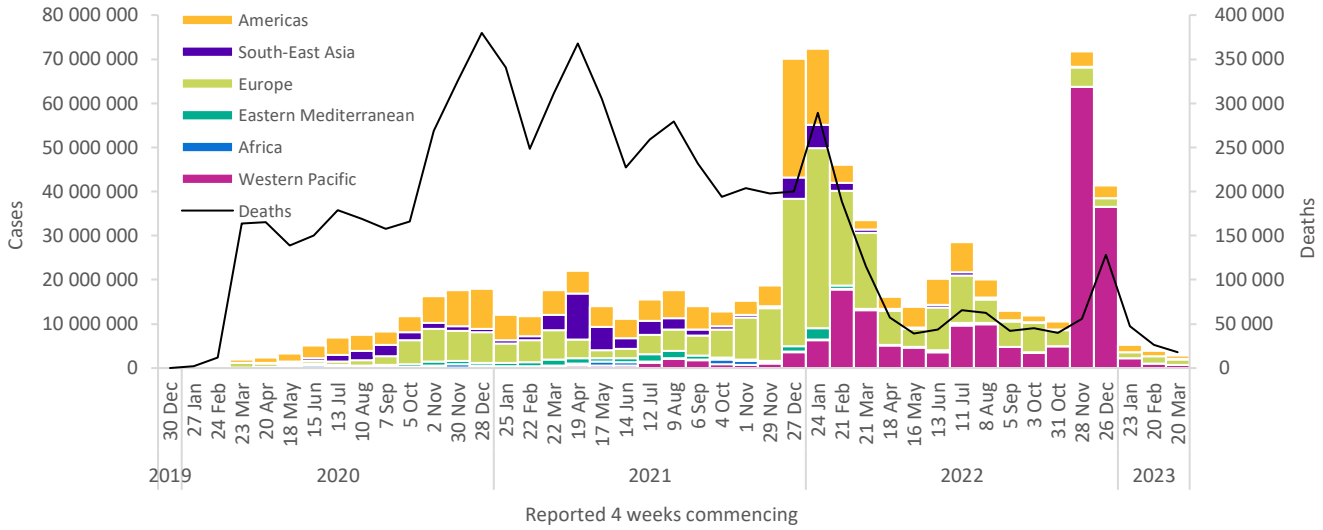
Data as of 16 April 2023

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.[1–4] 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%)**
Global	**2 848 275 (100%)**	**-27%**	**763 665 202 (100%)**	**17 877 (100%)**	**-32%**	**6 912 080 (100%)**

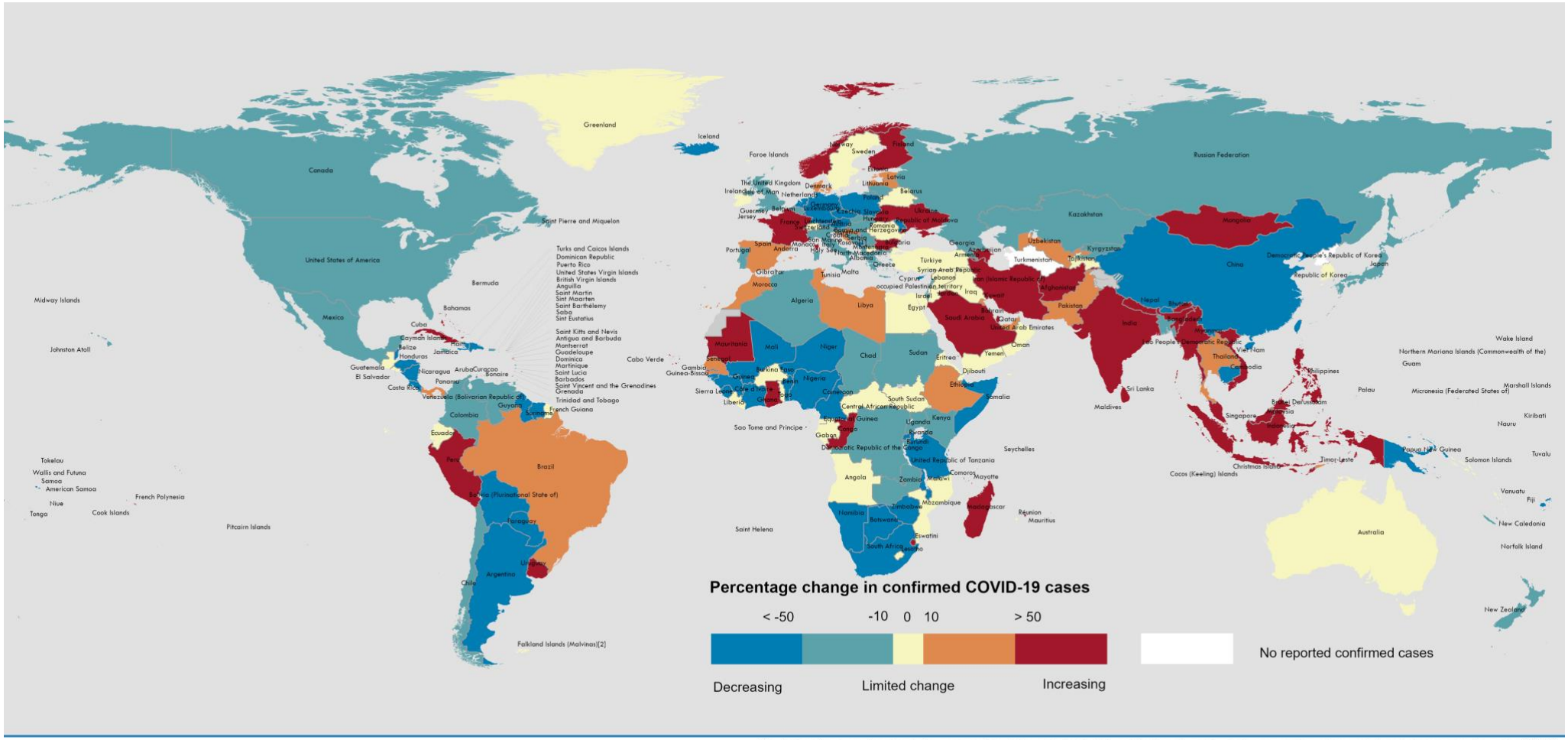
**Percent change in the number of newly confirmed cases/deaths in the past 28 days, compared to 28 days prior. Data from previous weeks are updated continuously with adjustments received from countries.*

***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**

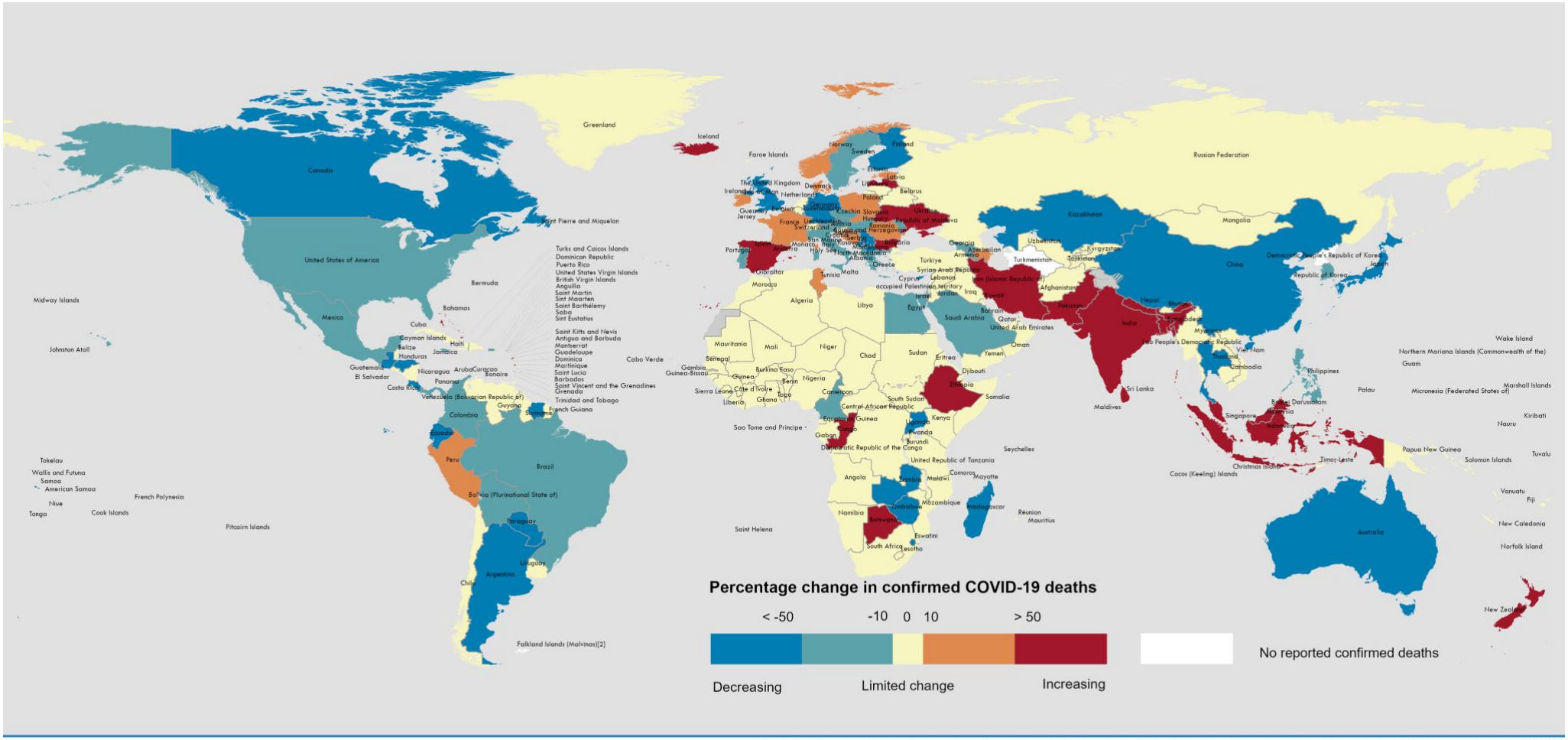


***Data Source**: World Health Organization*
***Map Production**: WHO Health Emergencies Programme*

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. [1] All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). Number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes. [2] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas). Data for Bonaire, Sint Eustatius and Saba have been disaggregated and displayed at the subnational level.

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

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



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

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. [1] All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). Number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes. [2] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas). Data for Bonaire, Sint Eustatius and Saba have been disaggregated and displayed at the subnational level.

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

SARS-CoV-2 variants of 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)[§]	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[+]	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.

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

+ 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

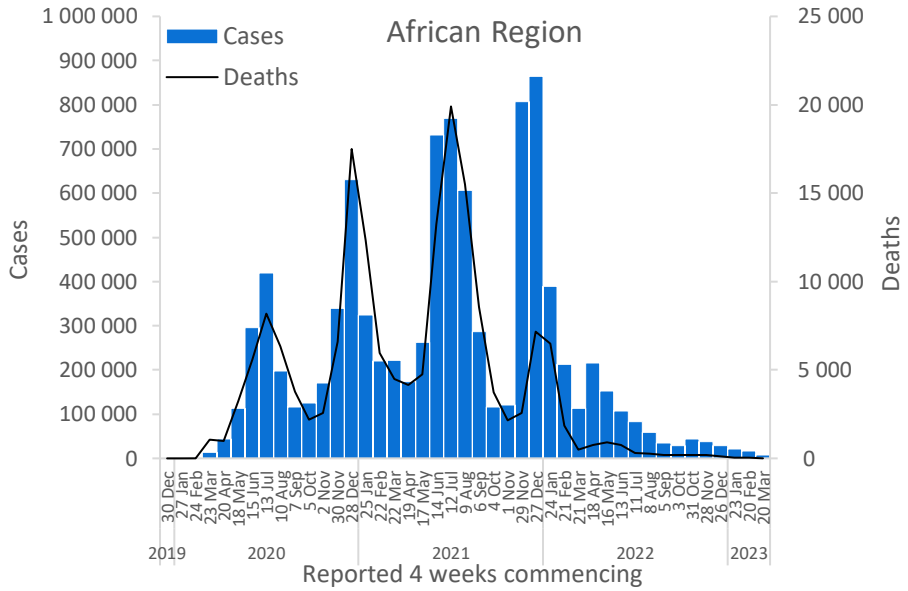
WHO regional overviews

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%).

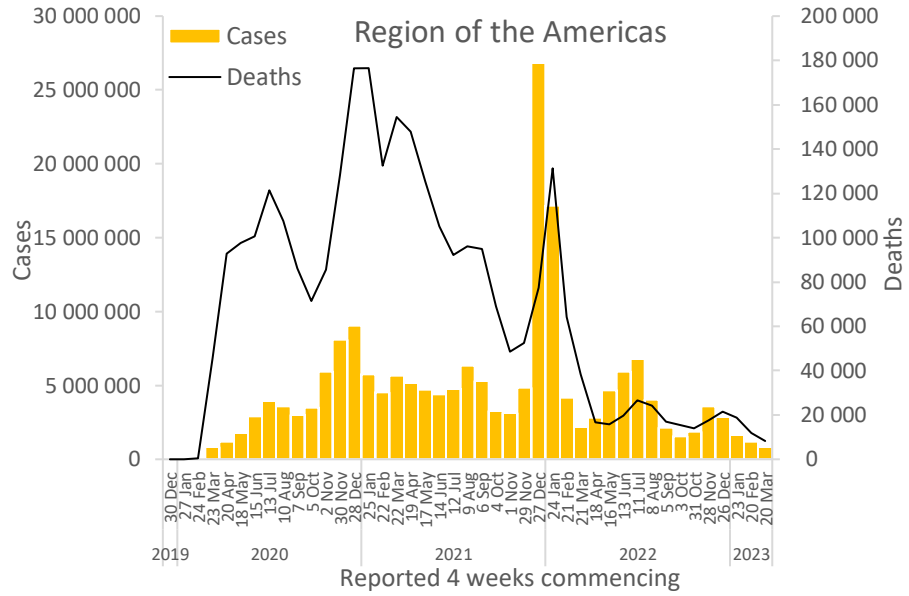


Updates from the African Region

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%).

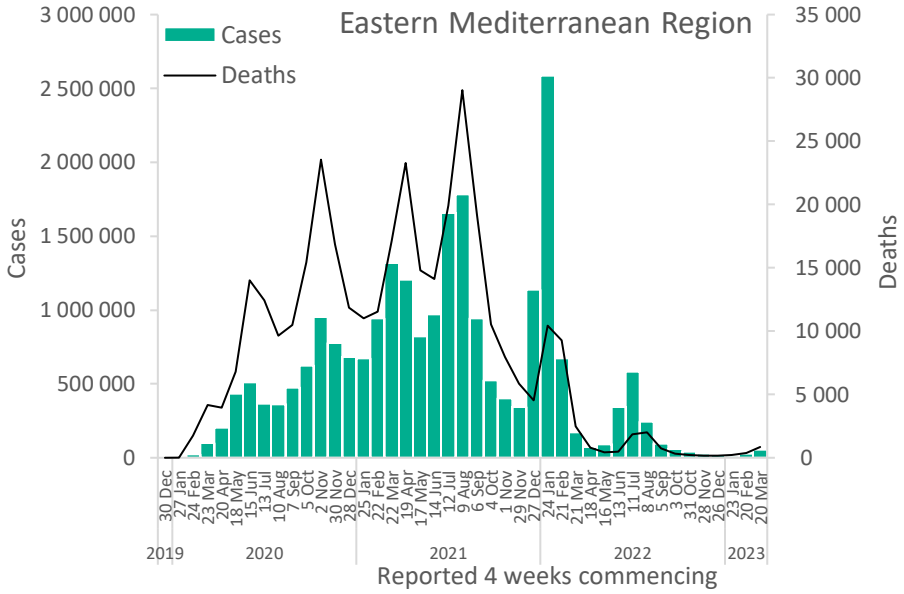


Updates from the Region of the Americas

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%).

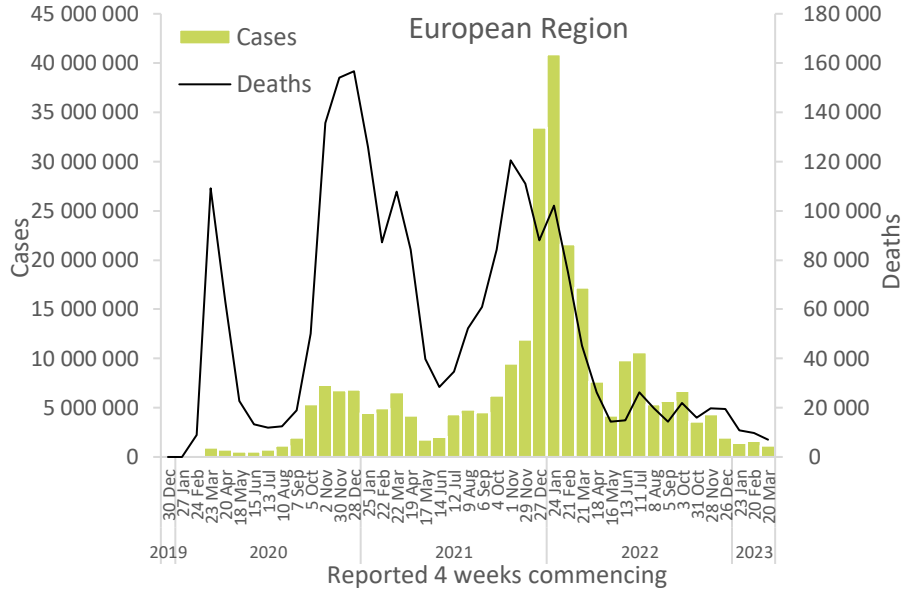


Updates from the Eastern Mediterranean Region

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%).

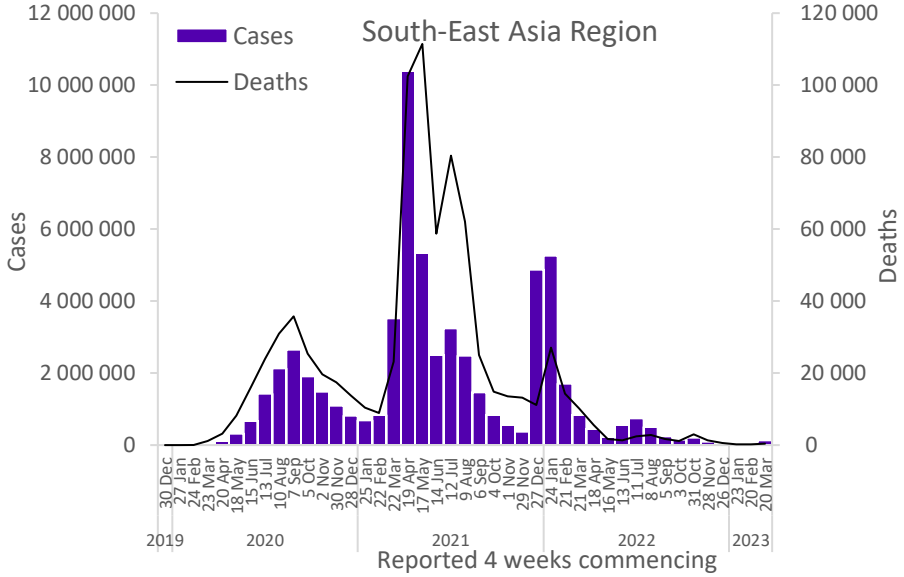


Updates from the European Region

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%).

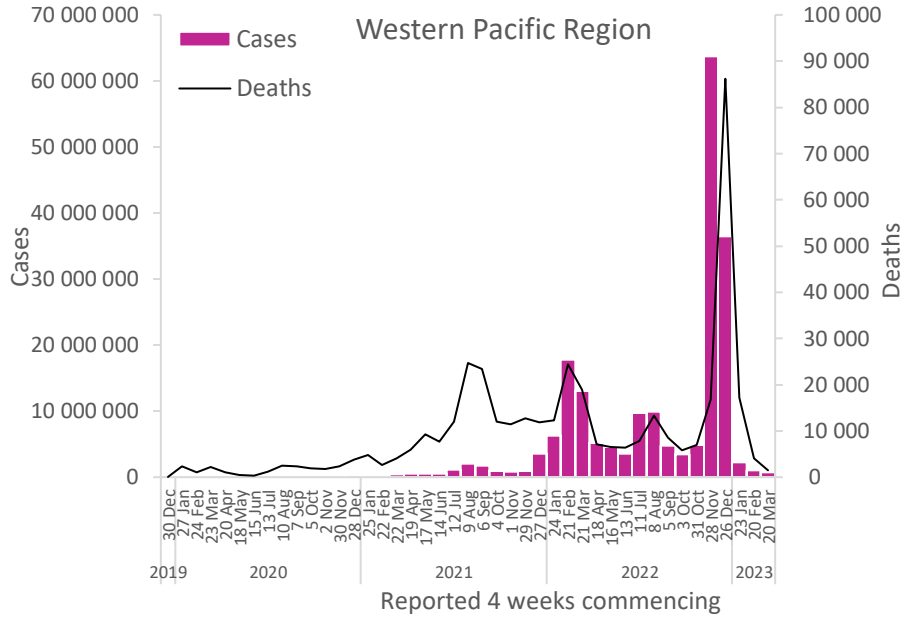


Updates from the South-East Asia Region

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%).

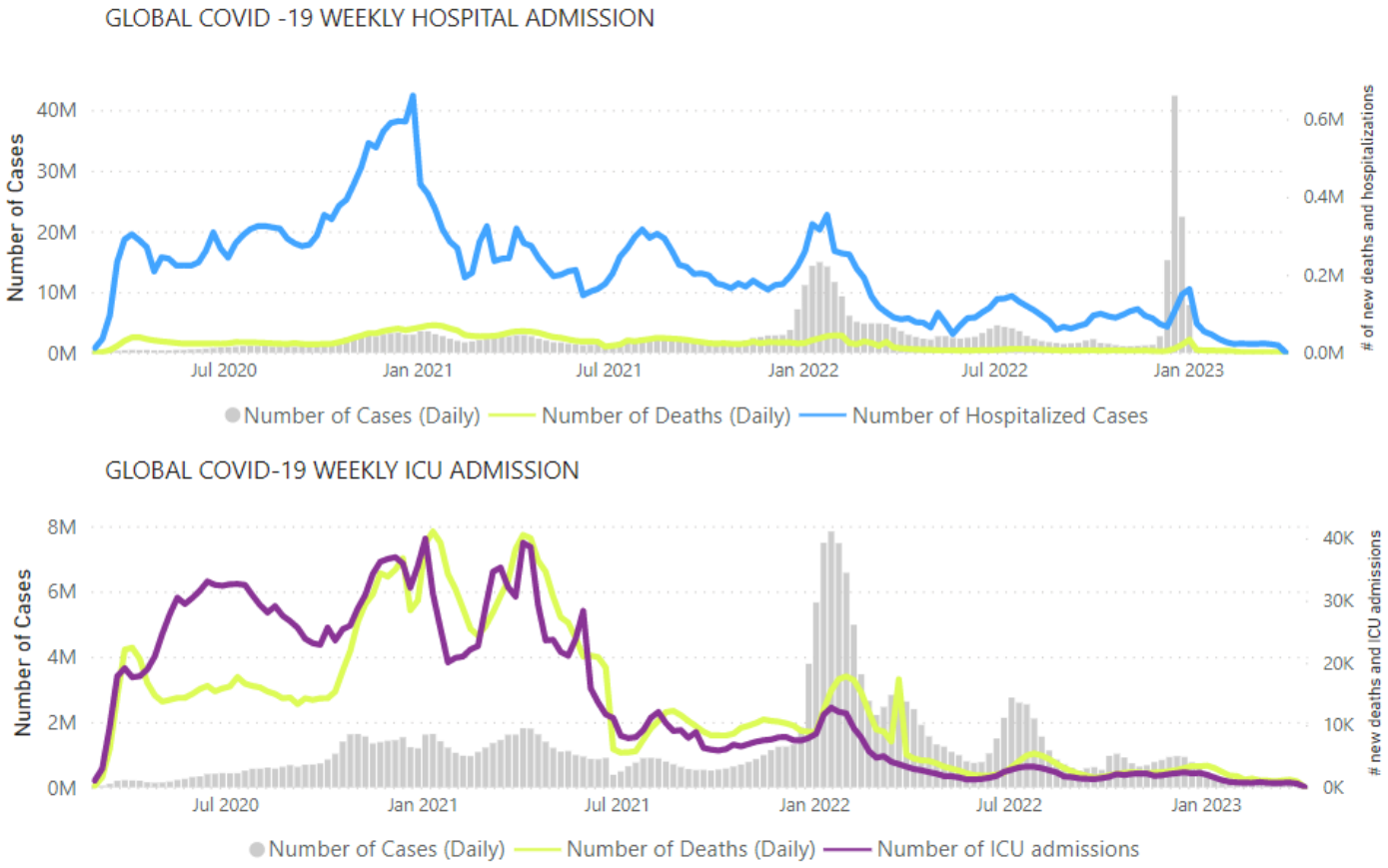
Among the 25 countries consistently[i] reporting new hospitalizations, eight (32%) countries registered an increase of 20% or greater in hospitalizations during the past 28 days compared to the previous 28-day period: Qatar (249 vs 46; +441%), Afghanistan (10 vs 7; +43%), France (10 485 vs 7540; +39%), 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%).

[i] "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. Please specify the countries of interest, time period, and purpose of the request/intended usage. Prior situation reports will not be edited; see covid19.who.int for the most up-to-date data. COVID-19 confirmed cases and deaths reported in the last seven days by countries, territories, and areas, and WHO Region (reported in previous issues) are now available at: https://covid19.who.int/table.

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

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.[5]

References

1. Cohen C, Kleynhans J, von Gottberg A, et al. SARS-CoV-2 incidence, transmission, and reinfection in a rural and an urban setting: results of the PHIRST-C cohort study, South Africa, 2020–21. *The Lancet Infectious Diseases*. 2022;22(6):821-834. doi:10.1016/S1473-3099(22)00069-X

2. Coronavirus (COVID-19) Infection Survey, UK: 4 November 2022 - Office for National Statistics. Accessed November 21, 2022. https://www.ons.gov.uk/releases/coronaviruscovid19infectionsurveyuk4november2022

3. Parikh S, O'Laughlin K, Ehrlich HY, et al. Point Prevalence Testing of Residents for SARS-CoV-2 in a Subset of Connecticut Nursing Homes. *JAMA*. 2020;324(11):1101-1103. doi:10.1001/jama.2020.14984

4. Real-time dashboard. Coronavirus disease 2019. Accessed November 15, 2022. https://covid19.sph.hku.hk/dashboard

5. Chen Z, Azman AS, Chen X, et al. Global landscape of SARS-CoV-2 genomic surveillance and data sharing. *Nature genetics*. 2022;54(4). doi:10.1038/s41588-022-01033-y

COVID-19 Weekly Epidemiological Update

Edition 140 published 27 April 2023

In this edition:

- Global overview
- SARS-CoV-2 variants of interest and variants under monitoring
- WHO regional overviews
- COVID-19 hospitalizations

Global overview

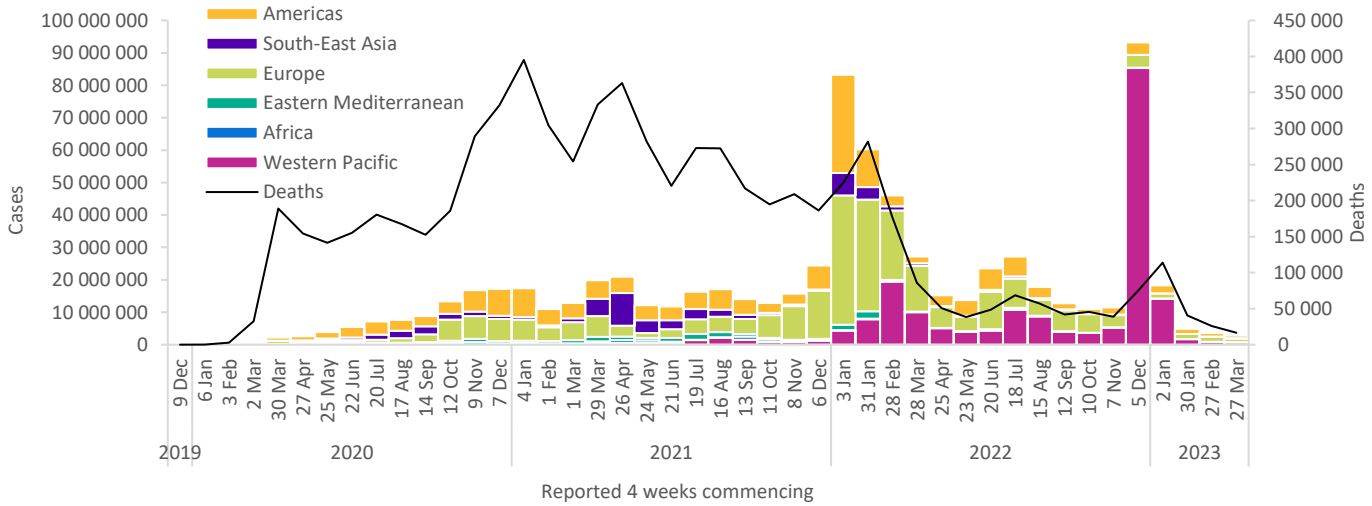
Data as of 23 April 2023

Globally, nearly 2.8 million new cases and over 16 000 deaths were reported in the last 28 days (27 March to 23 April 2023), a decrease of 23% and 36%, respectively, compared to the previous 28 days (27 February to 26 March 2023) (Figure 1, Table 1). Contrary to the overall trend, 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 23 April 2023, over 764 million confirmed cases and over 6.9 million deaths have been reported globally.

Reported COVID-19 cases are underestimates as shown by prevalence surveys.[1–4] 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 23 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 (-68%), the Region of the Americas (-35%), the European Region (-34%), and the Western Pacific Region (-15%); while cases increased in two WHO regions: the Eastern Mediterranean Region (+41%), and the South-East Asia Region (+666%). The number of newly reported 28-day deaths decreased across four regions: the Western Pacific Region (-68%), the African Region (-42%), the European Region (-38%), and the Region of the Americas (-33%); while deaths increased in two WHO regions: the Eastern Mediterranean Region (+80%), and the South-East Asia Region (+305%).

At the country level, the highest numbers of new 28-day cases were reported from the United States of America (383 887 new cases; -43%), the Republic of Korea (305 099 new cases; +13%), the Russian Federation (224 054 new cases; -33%), Japan (217 420 new cases; -8%), and France (213 732 new cases; +32%). The highest numbers of new 28-day deaths were reported from the United States of America (4765 new deaths; -40%), Brazil (1298 new deaths; +31%), the Russian Federation (995 new deaths; -5%), France (797 new deaths; +35%), and the Islamic Republic of Iran (718 new deaths; +103%).

Table 1. Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 23 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	1 005 665 (36%)	-34%	**275 765 146 (36%)**	6679 (40%)	-38%	**2 227 774 (32%)**
Western Pacific	768 942 (28%)	-15%	**202 588 501 (27%)**	1174 (7%)	-68%	**410 235 (6%)**
Americas	729 110 (26%)	-35%	**192 187 133 (25%)**	7204 (43%)	-33%	**2 949 516 (43%)**
South-East Asia	211 969 (8%)	666%	**61 005 983 (8%)**	708 (4%)	305%	**804 726 (12%)**
Eastern Mediterranean	51 573 (2%)	41%	**23 345 841 (3%)**	835 (5%)	80%	**350 827 (5%)**
Africa	5515 (<1%)	-68%	**9 522 788 (1%)**	15 (<1%)	-42%	**175 343 (3%)**
Global	**2 772 774 (100%)**	**-23%**	**764 416 156 (100%)**	**16 615 (100%)**	**-36%**	**6 918 434 (100%)**

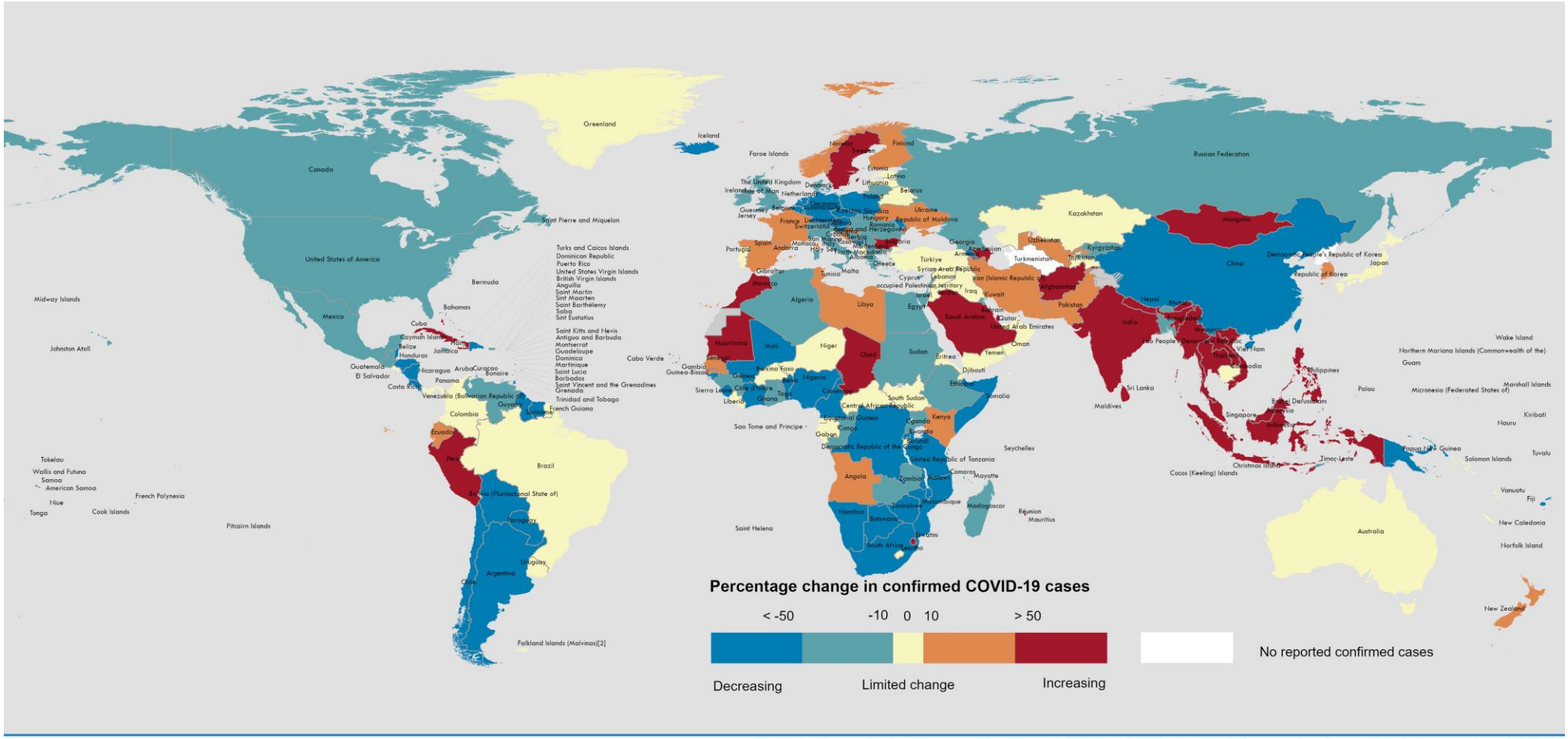
**Percent change in the number of newly confirmed cases/deaths in the past 28 days, compared to 28 days prior. Data from previous weeks are updated continuously with adjustments received from countries.*

***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 23 April 2023**

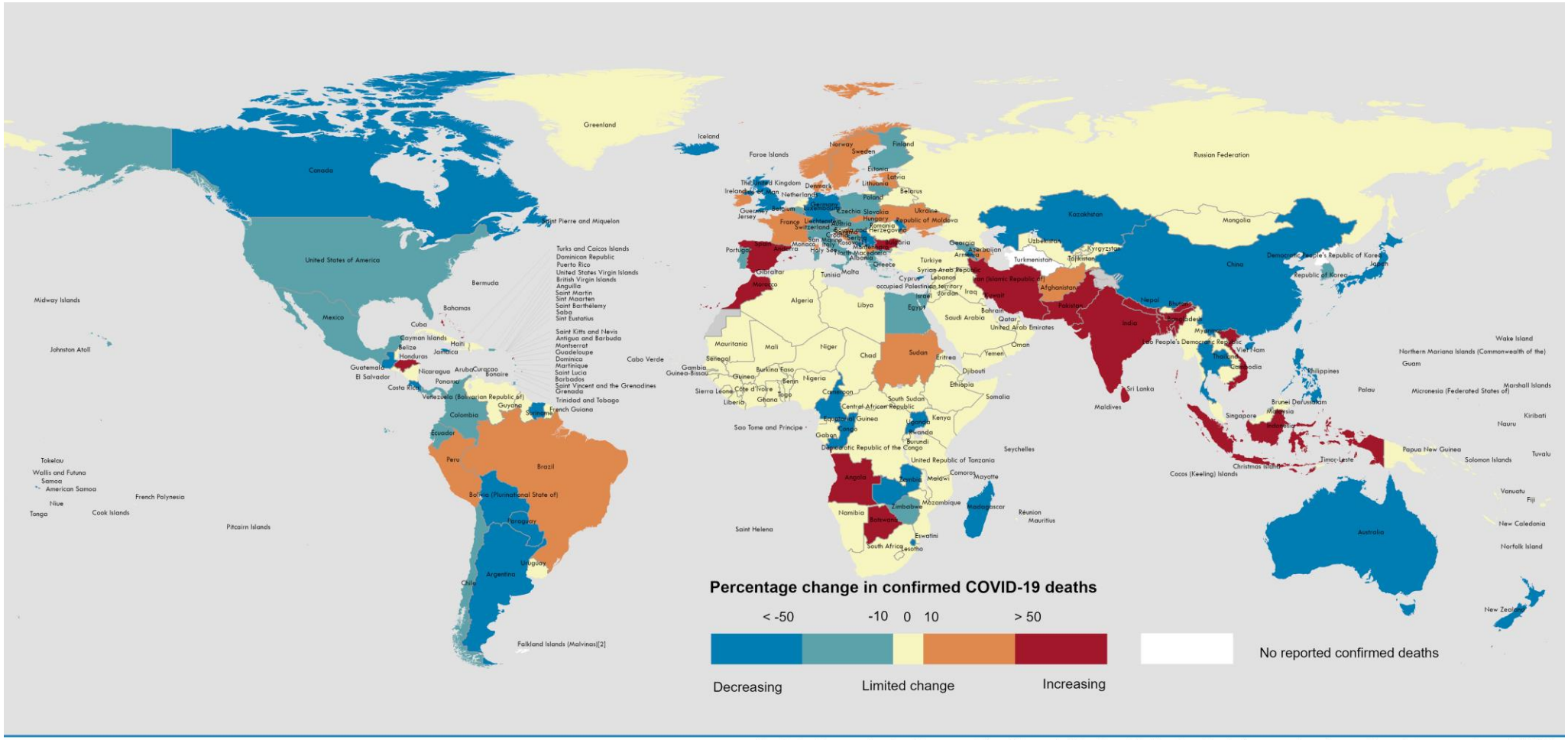


***Data Source**: World Health Organization*
***Map Production**: WHO Health Emergencies Programme*

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. [1] All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). Number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes. [2] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas). Data for Bonaire, Sint Eustatius and Saba have been disaggregated and displayed at the subnational level.

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

Figure 3. Percentage change in confirmed COVID-19 deaths over the last 28 days relative to the previous 28 days, as of 23 April 2023**



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

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. [1] All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). Number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes. [2] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas). Data for Bonaire, Sint Eustatius and Saba have been disaggregated and displayed at the subnational level.

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

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

Geographic spread and prevalence

Globally, from 27 March to 23 April 2023 (28 days), 35 474 SARS-CoV-2 sequences were shared through GISAID. WHO is currently monitoring two variants of interest (VOIs), XBB.1.5 and XBB.1.16, and seven variants under monitoring (VUMs) and their descendent lineages. The VUMs are BA.2.75, CH.1.1, BQ.1, XBB, XBB.1.9.1, XBB.1.9.2 and XBF. On 26 April 2023, XBB.1.9.2 was added to the list of VUMs.

Globally, XBB.1.5 has been reported from 103 countries. In epidemiological week 14 (3 to 9 April 2023), XBB.1.5 accounted for 45.4% of sequences, a decrease from 49.1% in epidemiological week 10 (6 to 12 March 2023). XBB.1.16 has been reported from 37 countries. In week 14, XBB.1.16 accounted for 4.3% of sequences, an increase from 1.3% in week 10. The risk assessment for XBB.1.16 is accessible from the WHO website.

Table 2 shows the number of countries reporting the VOIs and VUMs and their prevalence from week 10 to week 14. Among the VUMs, XBB, XBB.1.9.1 and XBB.1.9.2 have shown increasing trends. These three VUMs accounted for 13.3%, 9.4% and 2.7% of sequences respectively in week 14, as compared to 6.6%, 5.8% and 1.3% in week 10. Other VUMs show declining trends during the same reporting period. VOI and VUMs that have shown increasing trends are highlighted in orange, and those with decreasing trends are highlighted in green.

Table 2. Weekly prevalence of SARS-CoV-2 VOIs and VUMs, week 10 to week 14 of 2023

Lineage	Countries	Sequences	2023-10	2023-11	2023-12	2023-13	2023-14
XBB.1.5* (VOI)	103	174 238	49.14	48.93	49.41	48.55	45.39
XBB.1.16* (VOI)	37	3519	1.25	2.01	3.55	4.49	4.31
BA.2.75*	121	107 493	5.13	4.73	3.96	1.80	1.71
CH.1.1*	91	41 913	5.85	5.69	4.93	4.95	3.97
BQ.1*	145	401 594	9.47	7.70	5.85	3.91	3.64
XBB*	122	72 899	6.61	8.04	9.88	12.30	13.33
XBB.1.9.1*	69	13 835	5.83	6.72	7.27	8.38	9.36
XBB.1.9.2*	48	3370	1.32	1.77	1.87	2.48	2.69
XBF*	51	10 018	1.39	1.05	0.87	0.63	0.31
Unassigned	101	146 857	4.81	5.12	4.68	2.57	1.69
Other[+]	207	6 702 328	3.58	3.67	2.77	1.82	0.87

* Includes descendant lineages, except those individually specified elsewhere in the table. For example, XBB* does not include XBB.1.5, XBB.1.9.1, XBB.1.9.2 and XBB.1.16.

[+] Others are other circulating lineages excluding the VOI, VUMs, BA.1*, BA.2*, BA.3*, BA.4*, BA.5*.

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.1.16 Initial Risk Assessment, 17 April 2023
- WHO XBB.1.5 rapid risk assessment, 24 February 2023

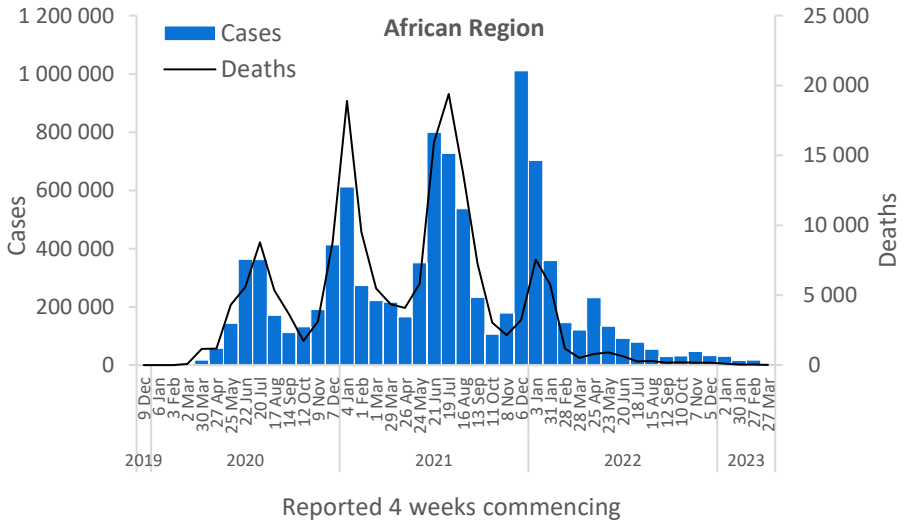
WHO regional overviews

Data for 27 March to 23 April 2023

African Region

The African Region reported over 5500 new cases, a 68% decrease as compared to the previous 28-day period. Ten (20%) 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 Chad (135 vs 10 new cases; +1250%), Mayotte (20 vs three new cases; +567%), and Cabo Verde (96 vs 16 new cases; +500%). The highest numbers of new cases were reported from Mauritius (2514 new cases; 197.7 new cases per 100 000; +67%), Zambia (388 new cases; 2.1 new cases per 100 000; -45%), and Ethiopia (378 new cases; <1 new case per 100 000; -21%).

The number of new 28-day deaths in the Region decreased by 42% as compared to the previous 28-day period, with 15 new deaths reported. The highest numbers of new deaths were reported from Zimbabwe (six new deaths; <1 new death per 100 000; -45%), Sao Tome and Principe (three new deaths; 1.4 new deaths per 100 000; no deaths reported the previous 28-day period), and Cameroon (two new deaths; <1 new death per 100 000; -50%).

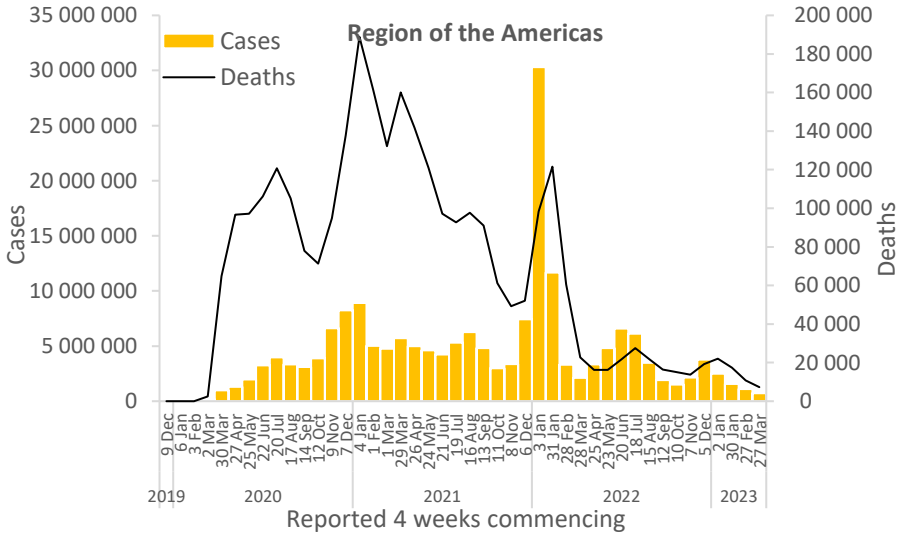


Updates from the African Region

Region of the Americas

The Region of the Americas reported over 729 000 new cases, a 35% decrease as compared to the previous 28-day period. 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 Barbados (668 vs 153 new cases; +337%), Saint Vincent and the Grenadines (15 vs seven new cases; +114%), and Sint Eustatius (two vs one new cases; +100%). The highest numbers of new cases were reported from the United States of America (383 887 new cases; 116 new cases per 100 000; -43%), Brazil (202 555 new cases; 95.3 new cases per 100 000; +10%), and Mexico (43 185 new cases; 33.5 new cases per 100 000; -39%).

The number of new 28-day deaths in the Region decreased by 33% as compared to the previous 28-day period, with 7204 new deaths reported. The highest numbers of new deaths were reported from the United States of America (4765 new deaths; 1.4 new deaths per 100 000; -40%), Brazil (1298 new deaths; <1 new death per 100 000; +31%), and Peru (364 new deaths; 1.1 new deaths per 100 000; +16%).

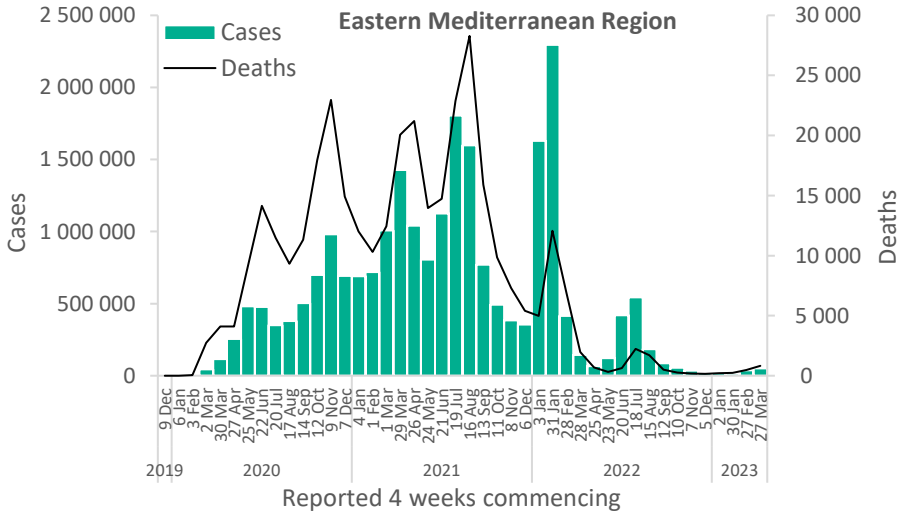


Updates from the Region of the Americas

Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 51 500 new cases, a 41% increase as compared to the previous 28-day period. Six (27%) 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 (3990 vs 829 new cases; +381%), Morocco (508 vs 180 new cases; +182%), and Saudi Arabia (6851 vs 3053 new cases; +124%). The highest numbers of new cases were reported from the Islamic Republic of Iran (20 574 new cases; 24.5 new cases per 100 000; +22%), Qatar (8411 new cases; 291.9 new cases per 100 000; +101%), and Saudi Arabia (6851 new cases; 19.7 new cases per 100 000; +124%).

The number of new 28-day deaths in the Region increased by 80% as compared to the previous 28-day period, with 835 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (718 new deaths; <1 new death per 100 000; +103%), Lebanon (36 new deaths; <1 new death per 100 000; -3%), and Tunisia (23 new deaths; <1 new death per 100 000; -8%).

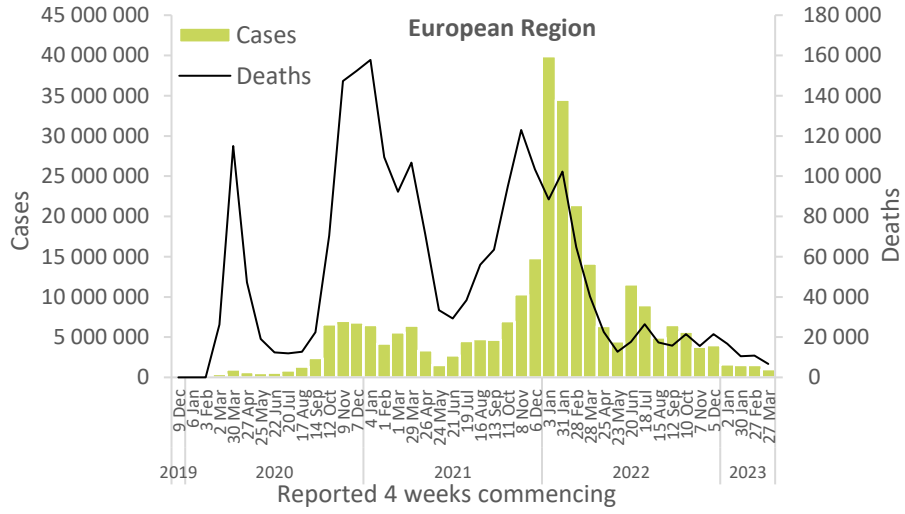


Updates from the Eastern Mediterranean Region

European Region

The European Region reported over one million new cases, a 34% 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 39 new cases; +126%), Azerbaijan (1750 vs 853 new cases; +105%), and Sweden (4313 vs 2510 new cases; +72%). The highest numbers of new cases were reported from the Russian Federation (224 054 new cases; 153.5 new cases per 100 000; -33%), France (213 732 new cases; 328.6 new cases per 100 000; +32%), and Italy (85 071 new cases; 142.6 new cases per 100 000; -10%).

The number of new 28-day deaths in the Region decreased by 38% as compared to the previous 28-day period, with 6679 new deaths reported. The highest numbers of new deaths were reported from the Russian Federation (995 new deaths; <1 new death per 100 000; -5%), France (797 new deaths; 1.2 new deaths per 100 000; +35%), and Spain (680 new deaths; 1.4 new deaths per 100 000; +86%).

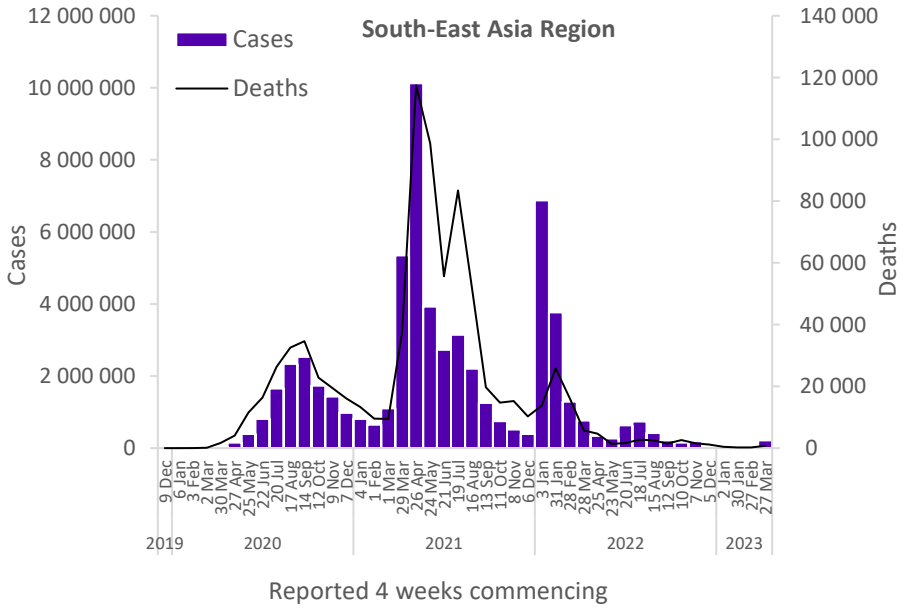


Updates from the European Region

South-East Asia Region

The South-East Asia Region reported over 211 000 new cases, a 666% increase as compared to the previous 28-day period. Seven (64%) 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 (1375 vs 83 new cases; +1557%), the Maldives (470 vs 39 new cases; +1105%), and India (187 842 vs 18 130 new cases; +936%). The highest numbers of new cases were reported from India (187 842 new cases; 13.6 new cases per 100 000; +936%), Indonesia (19 907 new cases; 7.3 new cases per 100 000; +137%), and Thailand (1858 new cases; 2.7 new cases per 100 000; +211%).

The number of new 28-day deaths in the Region increased by 305% as compared to the previous 28-day period, with 708 new deaths reported. The highest numbers of new deaths were reported from India (498 new deaths; <1 new death per 100 000; +703%), Indonesia (183 new deaths; <1 new death per 100 000; +113%), and Thailand (12 new deaths; <1 new death per 100 000; -50%).

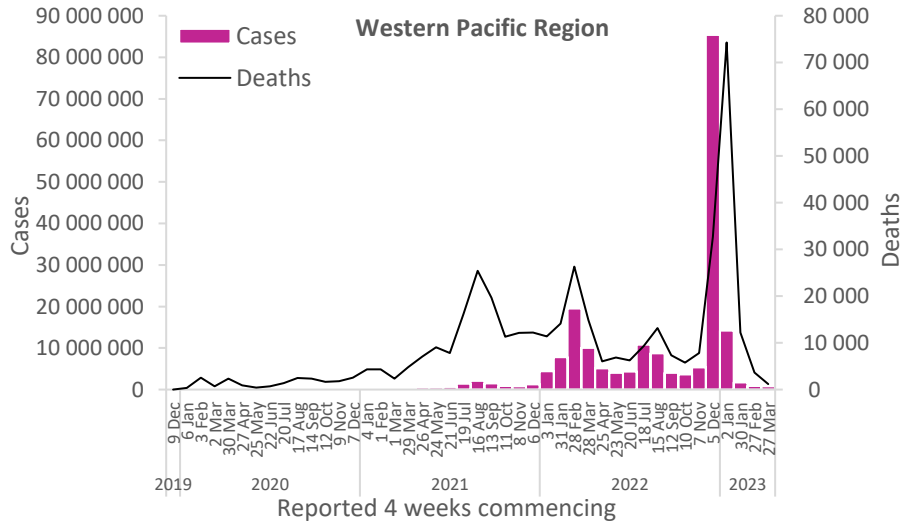


Updates from the South-East Asia Region

Western Pacific Region

The Western Pacific Region reported just under 769 000 new cases, a 15% 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 (15 850 vs 309 new cases; +5029%), Kiribati (11 vs one new cases; +1000%), and Mongolia (82 vs 14 new cases; +486%). The highest numbers of new cases were reported from the Republic of Korea (305 099 new cases; 595.1 new cases per 100 000; +13%), Japan (217 420 new cases; 171.9 new cases per 100 000; -8%), and Australia (80 254 new cases; 314.7 new cases per 100 000; -9%).

The number of new 28-day deaths in the Region decreased by 68% as compared to the previous 28-day period, with 1174 new deaths reported. The highest numbers of new deaths were reported from Japan (609 new deaths; <1 new death per 100 000; -59%), the Republic of Korea (190 new deaths; <1 new death per 100 000; -27%), and Australia (150 new deaths; <1 new death per 100 000; -65%).



Updates from the Western Pacific Region

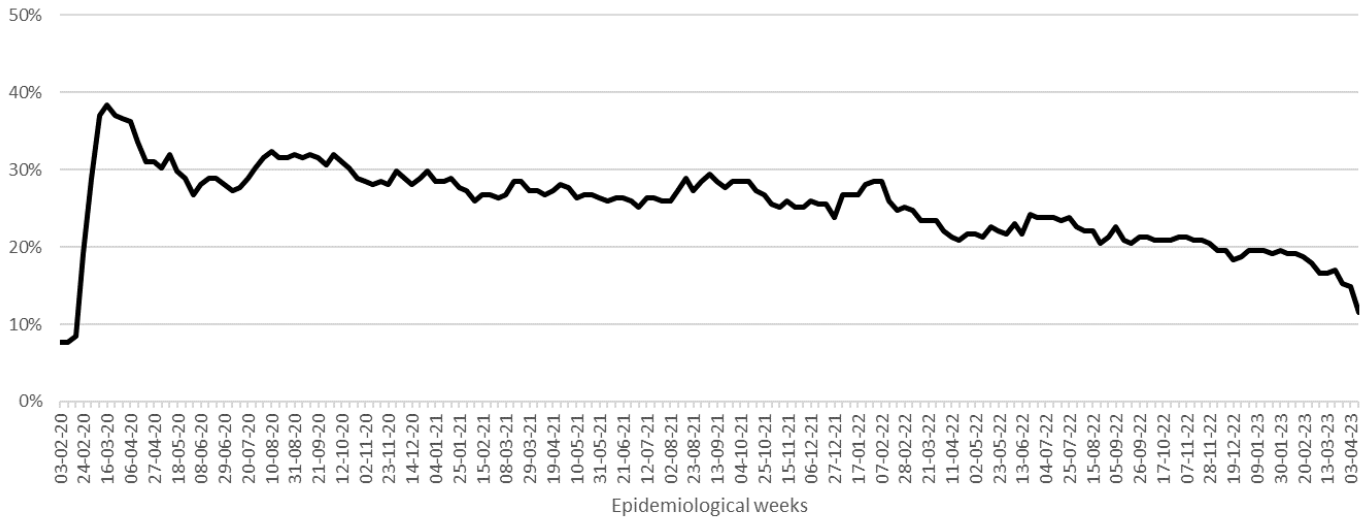
COVID-19 hospitalizations

At the global level, during the past 28 days (20 March to 16 April 2023), a total of 70 755 new hospitalizations was reported (Figure 5). This represents a 9% decrease in new hospitalizations compared to the previous 28 days (20 February to 19 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, 42 (18%) countries reported data to WHO on new hospitalizations at least once (Figure 4); this proportion of countries reporting hospitalization each week has continued to decrease over the course of the pandemic, despite the critical importance of these data for interpreting the burden of COVID-19 morbidity. The European Region had the highest proportion of countries reporting data on new hospitalizations (23 countries; 38%), followed by the Eastern Mediterranean Region (five countries; 23%), the South-East Asia Region (two countries; 18%), the Region of the Americas (six countries; 11%), the Western Pacific Region (three countries; 9%), and the African Region (three countries; 6%). The proportion of countries that consistently[i] reported new hospitalizations for the period was 11% (26 countries).

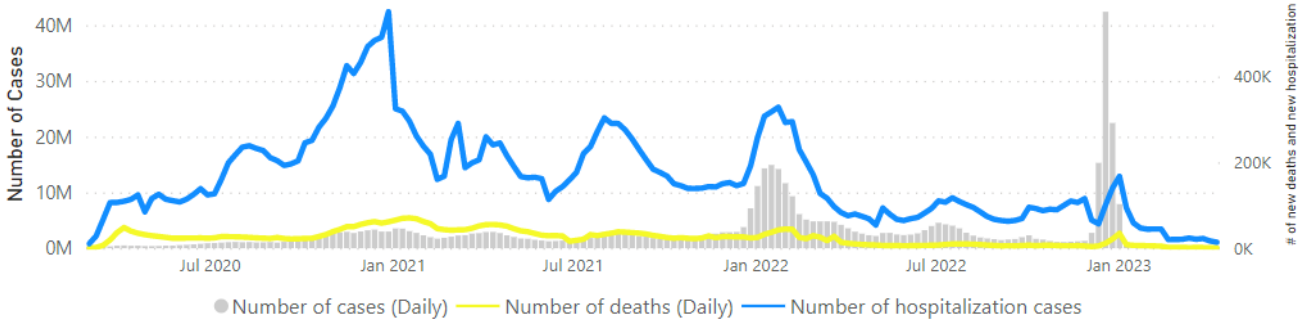
Among these 26 countries, six (23%) countries registered an increase of 20% or greater in hospitalizations during the past 28 days compared to the previous 28-day period: Qatar (325 vs 72; +351%), Singapore (1552 vs 548; +183%), Malaysia (5239 vs 3735; +40%), France (10 973 vs 8070; +36%), Latvia (755 vs 587; +29%), and Estonia (552 vs 450; +23%). The highest number of new hospitalizations was reported from Ukraine (16 446 vs 15 378; +7%), France (10 973 vs 8070; +36%), and Italy (7814 vs 11 179; -30%).

Figure 4. Weekly proportion of countries reporting new hospitalizations: week 5, 2020 to week 15, 2023



[i] "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 5. COVID-19 cases, deaths, hospitalizations admissions reported weekly to WHO, as of 16 April 2023



Note: Recent weeks are subject to reporting delays and should not be interpreted as a declining trend.
Source: WHO Detailed Surveillance Dashboard

Note: Due to technical issues, ICU admissions analysis has been excluded from this edition (140) of the WEU. It will be included in the next edition of the WEU.

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 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.[5]

References

1. Cohen C, Kleynhans J, von Gottberg A, et al. SARS-CoV-2 incidence, transmission, and reinfection in a rural and an urban setting: results of the PHIRST-C cohort study, South Africa, 2020–21. *The Lancet Infectious Diseases*. 2022;22(6):821-834. doi:10.1016/S1473-3099(22)00069-X

2. Coronavirus (COVID-19) Infection Survey, UK: 4 November 2022 - Office for National Statistics. Accessed November 21, 2022. https://www.ons.gov.uk/releases/coronaviruscovid19infectionsurveyuk4november2022

3. Parikh S, O'Laughlin K, Ehrlich HY, et al. Point Prevalence Testing of Residents for SARS-CoV-2 in a Subset of Connecticut Nursing Homes. *JAMA*. 2020;324(11):1101-1103. doi:10.1001/jama.2020.14984

4. Real-time dashboard. Coronavirus disease 2019. Accessed November 15, 2022. https://covid19.sph.hku.hk/dashboard

5. Chen Z, Azman AS, Chen X, et al. Global landscape of SARS-CoV-2 genomic surveillance and data sharing. *Nature genetics*. 2022;54(4). doi:10.1038/s41588-022-01033-y