COVID-19 Weekly Epidemiological Update

Edition 141 published 4 May 2023

In this edition:

Global overview

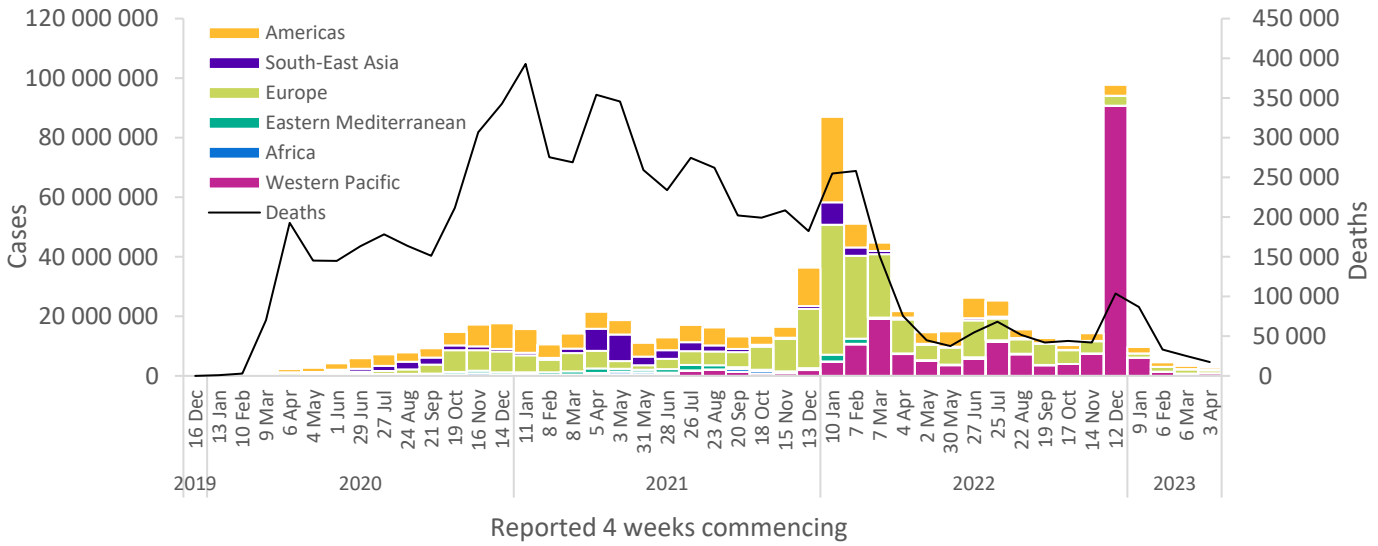
Data as of 30 April 2023

Globally, nearly 2.8 million new cases and over 17 000 deaths were reported in the last 28 days (3 to 30 April 2023), a decrease of 17% and 30%, respectively, compared to the previous 28 days (6 March to 2 April 2023) (Figure 1, Table 1). The picture is mixed at the regional level, with increases in reported cases and deaths seen in the South-East Asia, Eastern Mediterranean, and Western Pacific regions, and decreases in other regions. As of 30 April 2023, over 765 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 30 April 2023**



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

At the regional level, the number of newly reported 28-day cases increased across three of the six WHO regions: the Eastern Mediterranean Region (+8%), the Western Pacific Region (+15%), and the South-East Asia Region (+454%); while cases decreased in three WHO regions: the African Region (-49%), the European Region (-37%), and the Region of the Americas (-34%). The number of newly reported 28-day deaths decreased across four regions: the Western Pacific Region (-56%), the European Region (-44%), the African Region (-33%), and the Region of the Americas (-21%); while deaths increased in two WHO regions: the Eastern Mediterranean Region (+61%), and the South-East Asia Region (+317%).

At the country level, the highest numbers of new 28-day cases were reported from the United States of America (392 480 new cases; -37%), the Republic of Korea (330 509 new cases; +22%), Japan (251 158 new cases; +24%), India (222 784 new cases; +540%), and France (197 190 new cases; +2%). The highest numbers of new 28-day deaths were reported from the United States of America (5263 new deaths; -29%), Brazil (1255 new deaths; +30%), the Russian Federation (993 new deaths; -2%), France (871 new deaths; +39%), and the Islamic Republic of Iran (762 new deaths; +82%).

Table 1. Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 30 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	888 081 (32%)	-37%	**275 958 509 (36%)**	6234 (36%)	-44%	**2 230 459 (32%)**
Western Pacific	883 574 (32%)	15%	**202 829 430 (27%)**	1234 (7%)	-56%	**410 552 (6%)**
Americas	698 126 (25%)	-34%	**192 441 131 (25%)**	8162 (47%)	-21%	**2 952 507 (43%)**
South-East Asia	256 907 (9%)	454%	**61 073 176 (8%)**	950 (5%)	317%	**805 056 (12%)**
Eastern Mediterranean	46 182 (2%)	8%	**23 352 192 (3%)**	865 (5%)	61%	**350 992 (5%)**
Africa	6328 (<1%)	-49%	**9 525 057 (1%)**	14 (<1%)	-33%	**175 347 (3%)**
Global	**2 779 198 (100%)**	**-17%**	**765 180 259 (100%)**	**17 459 (100%)**	**-30%**	**6 924 926 (100%)**

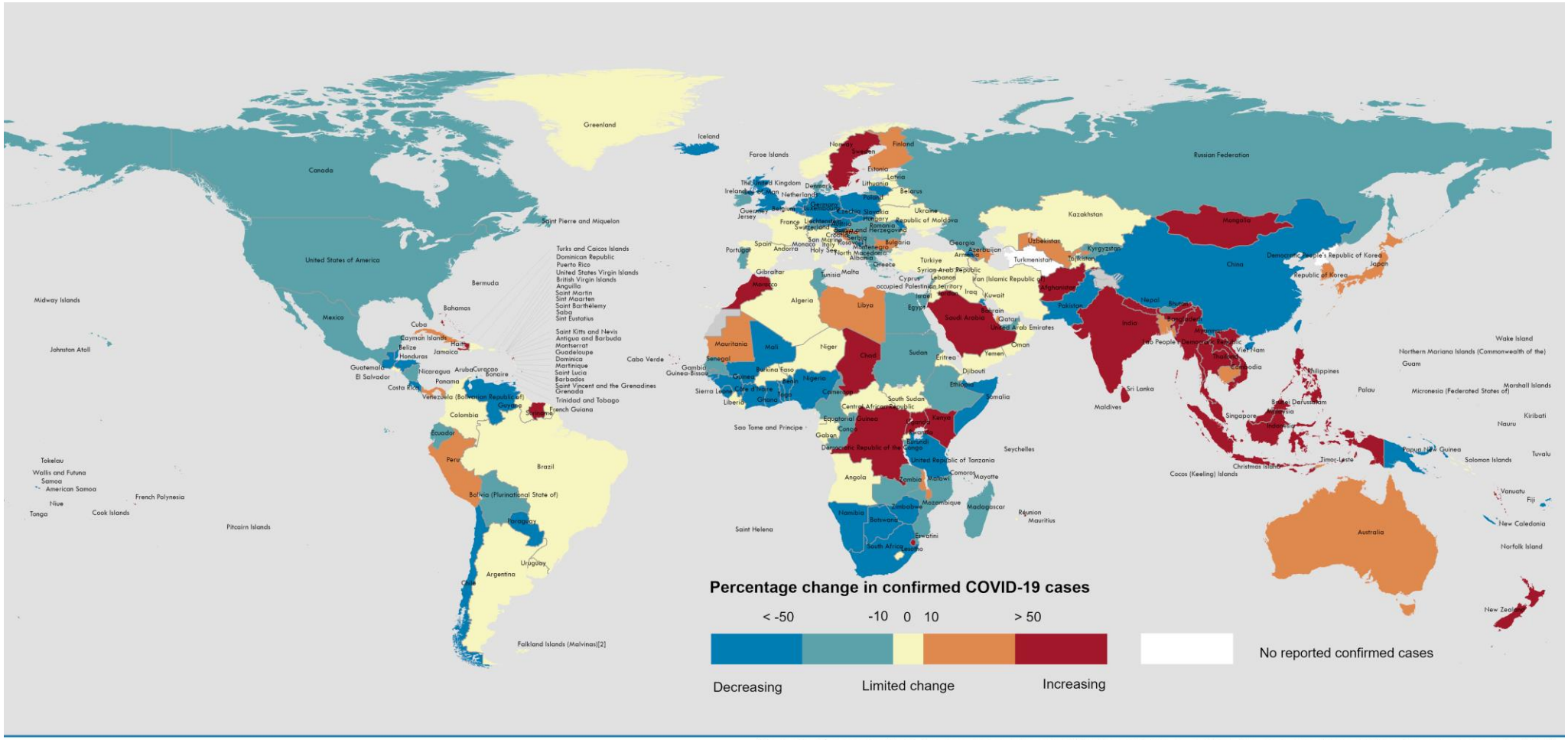
**Percent change in the number of newly confirmed cases/deaths in the past 28 days, compared to 28 days prior. Data from previous weeks are updated continuously with adjustments received from countries.*

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

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

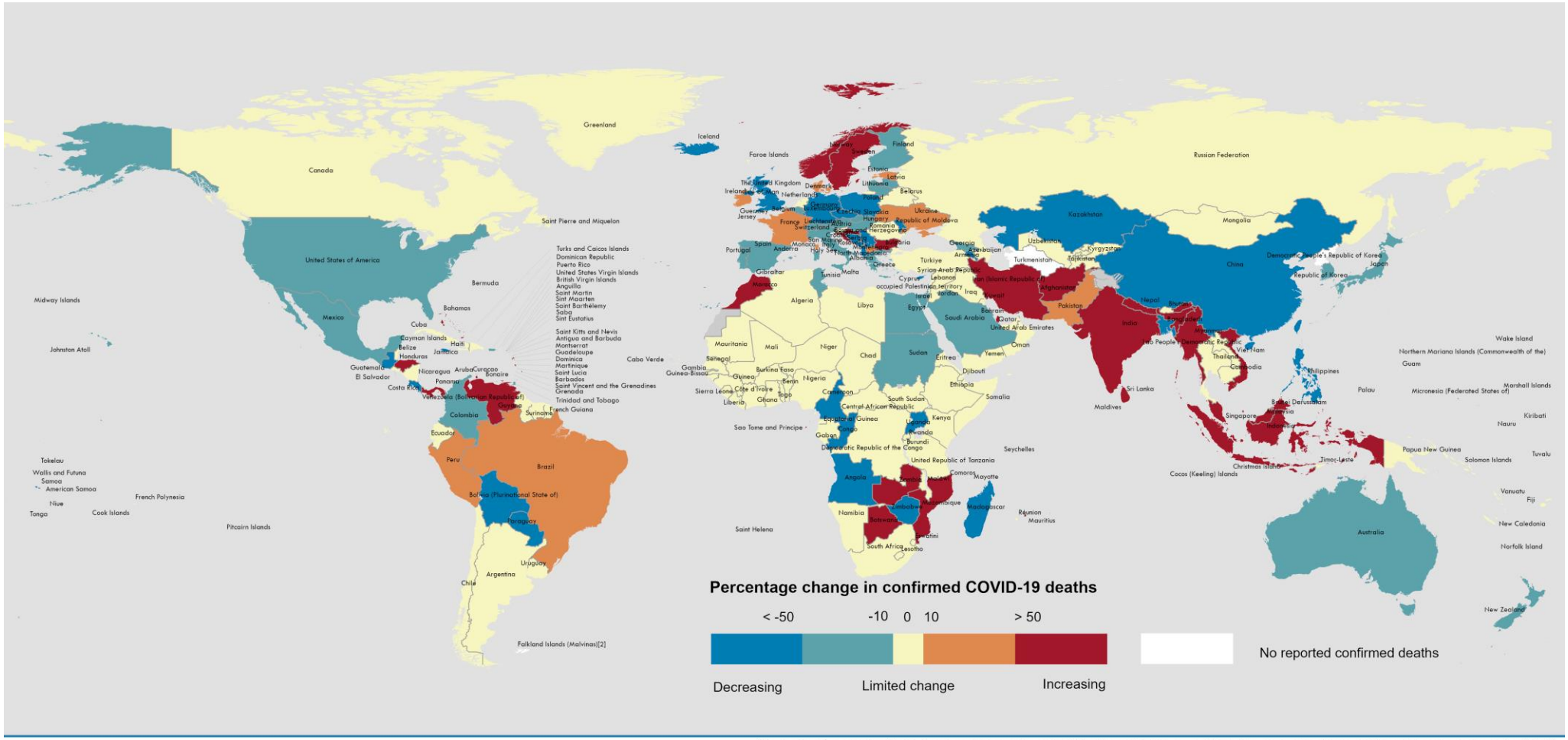
- WHO COVID-19 Dashboard
- WHO Monthly Operational Update and past editions of the Weekly Epidemiological Update on COVID-19
- WHO COVID-19 detailed surveillance data dashboard
- WHO COVID-19 policy briefs

Figure 2. Percentage change in confirmed COVID-19 cases over the last 28 days relative to the previous 28 days, as of 30 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 30 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 3 to 30 April 2023 (28 days), 30 147 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.

Globally, XBB.1.5 has been reported from 106 countries. In epidemiological week 15 (10 to 16 April 2023), XBB.1.5 accounted for 46.7% of sequences, a decrease from 49.3% in epidemiological week 11 (13 to 19 March 2023). XBB.1.16 has been reported from 40 countries. In week 15, XBB.1.16 accounted for 5.7% of sequences, an increase from 2.0% in week 11.

Table 2 shows the number of countries reporting the VOIs and VUMs and their prevalence from week 11 to week 15. Among the VUMs, XBB, XBB.1.9.1 and XBB.1.9.2 have shown increasing trends. 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, epidemiological week 11 to week 15 of 2023

Lineage	Countries	Sequences	2023-11	2023-12	2023-13	2023-14	2023-15
XBB.1.5* (VOI)	106	188 635	49.27	49.91	47.10	48.40	46.71
XBB.1.16* (VOI)	40	4777	2.02	3.51	4.40	4.81	5.70
BA.2.75*	121	108 699	4.60	3.84	3.51	1.89	1.57
CH.1.1*	91	43 364	5.70	4.89	4.91	3.94	3.50
BQ.1*	146	404 622	7.73	5.91	4.28	3.64	2.58
XBB*	123	76 775	8.10	10.07	12.16	13.09	16.39
XBB.1.9.1*	73	16 628	6.87	7.38	8.95	9.63	10.66
XBB.1.9.2*	53	4 089	1.76	1.90	2.57	2.50	2.79
XBF*	55	10 382	1.07	0.88	0.58	0.47	0.30
Unassigned	110	154 484	7.38	5.71	2.68	2.57	2.66
Other[+]	207	6 669 584	0.02	0.02	0.02	0.03	0.01

* 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

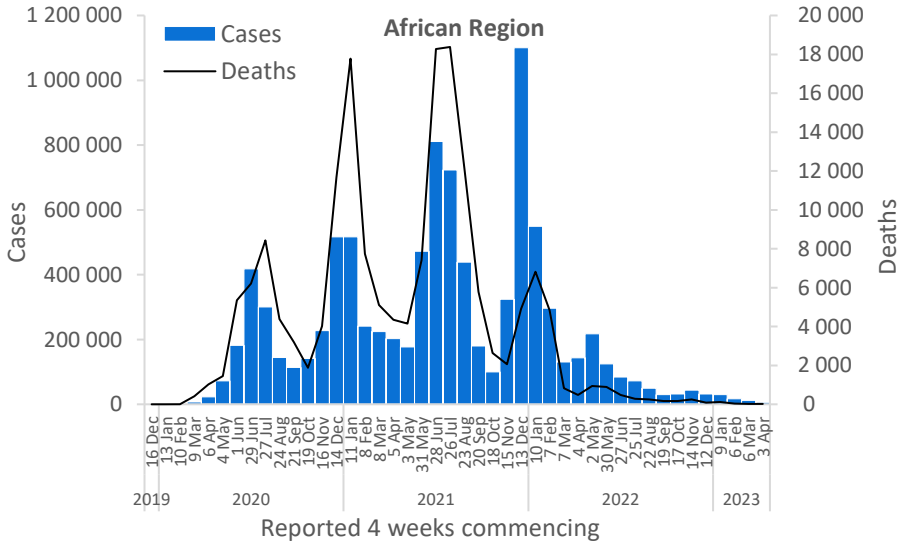
WHO regional overviews

Data for 3 to 30 April 2023

African Region

The African Region reported over 6300 new cases, a 49% 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 Cabo Verde (207 vs 15 new cases; +1280%), Chad (132 vs 10 new cases; +1220%), and Eswatini (304 vs 56 new cases; +443%). The highest numbers of new cases were reported from Mauritius (3336 new cases; 262.3 new cases per 100 000; +133%), Zambia (344 new cases; 1.9 new cases per 100 000; -44%), and Eswatini (304 new cases; 26.2 new cases per 100 000; +443%).

The number of new 28-day deaths in the Region decreased by 33% as compared to the previous 28-day period, with 14 new deaths reported. The highest numbers of new deaths were reported from Zimbabwe (five new deaths; <1 new death per 100 000; -50%), Mauritius (two new deaths; <1 new death per 100 000; no deaths reported the previous 28-day period), and Sao Tome and Principe (two new deaths; <1 new death per 100 000; +100%).

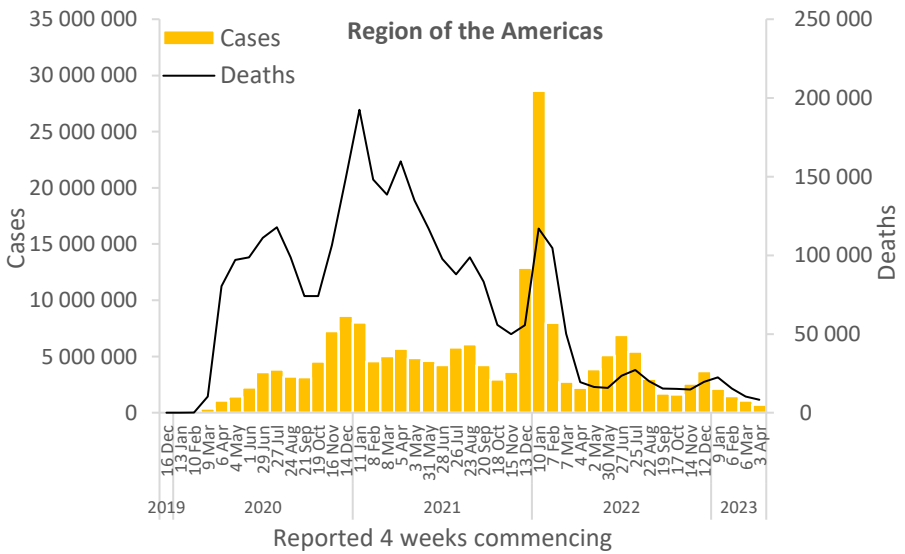


Updates from the African Region

Region of the Americas

The Region of the Americas reported over 698 000 new cases, a 34% decrease as compared to the previous 28-day period. Six (11%) 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 Grenada (10 vs three new cases; +233%), Saint Martin (20 vs nine new cases; +122%), and Guadeloupe (490 vs 277 new cases; +77%). The highest numbers of new cases were reported from the United States of America (392 480 new cases; 118.6 new cases per 100 000; -37%), Brazil (190 755 new cases; 89.7 new cases per 100 000; +4%), and Mexico (34 854 new cases; 27.0 new cases per 100 000; -49%).

The number of new 28-day deaths in the Region decreased by 21% as compared to the previous 28-day period, with 8162 new deaths reported. The highest numbers of new deaths were reported from the United States of America (5263 new deaths; 1.6 new deaths per 100 000; -29%), Brazil (1255 new deaths; <1 new death per 100 000; +30%), and Canada (562 new deaths; 1.5 new deaths per 100 000; -9%).

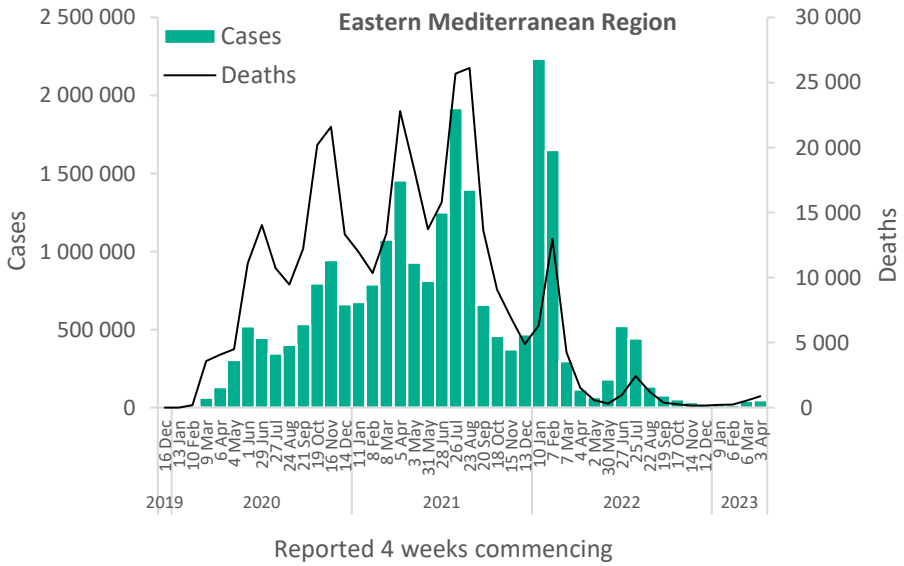


Updates from the Region of the Americas

Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 46 000 new cases, an 8% increase as compared to the previous 28-day period. Five (23%) 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 Morocco (784 vs 193 new cases; +306%), Afghanistan (4252 vs 1259 new cases; +238%), and Saudi Arabia (6457 vs 4150 new cases; +56%). The highest numbers of new cases were reported from the Islamic Republic of Iran (19 204 new cases; 22.9 new cases per 100 000; +2%), Qatar (6884 new cases; 238.9 new cases per 100 000; +43%), and Saudi Arabia (6457 new cases; 18.5 new cases per 100 000; +56%).

The number of new 28-day deaths in the Region increased by 61% as compared to the previous 28-day period, with 865 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (762 new deaths; <1 new death per 100 000; +82%), Lebanon (30 new deaths; <1 new death per 100 000; -9%), and Tunisia (25 new deaths; <1 new death per 100 000; -19%).

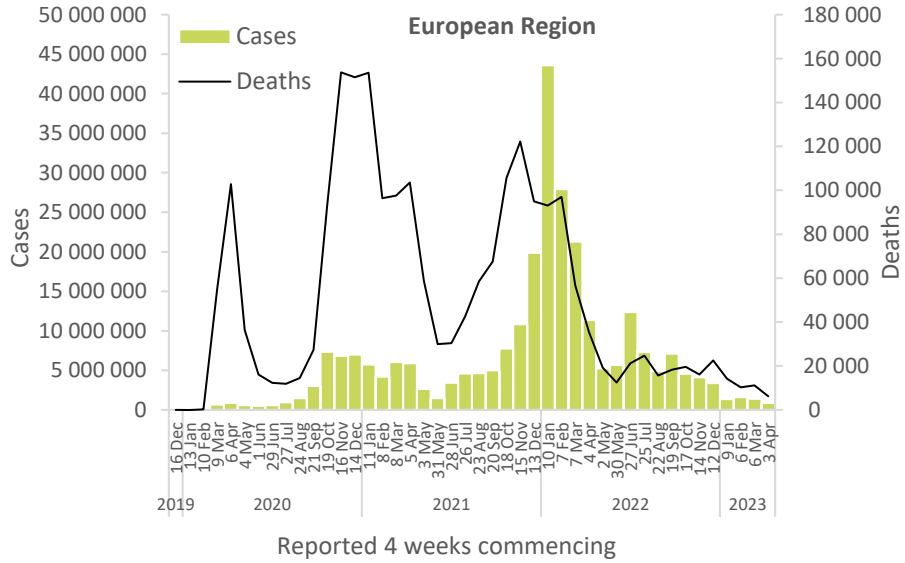


Updates from the Eastern Mediterranean Region

European Region

The European Region reported over 888 000 new cases, a 37% decrease as compared to the previous 28-day period. Seven (11%) of the 61 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Gibraltar (88 vs 29 new cases; +203%), Sweden (4435 vs 2848 new cases; +56%), and Finland (6052 vs 4240 new cases; +43%). The highest numbers of new cases were reported from France (197 190 new cases; 303.2 new cases per 100 000; +2%), the Russian Federation (195 083 new cases; 133.7 new cases per 100 000; -38%), and Italy (87 240 new cases; 146.3 new cases per 100 000; -4%).

The number of new 28-day deaths in the Region decreased by 44% as compared to the previous 28-day period, with 6234 new deaths reported. The highest numbers of new deaths were reported from the Russian Federation (993 new deaths; <1 new death per 100 000; -2%), France (871 new deaths; 1.3 new deaths per 100 000; +39%), and Italy (583 new deaths; 1 new death per 100 000; -23%).

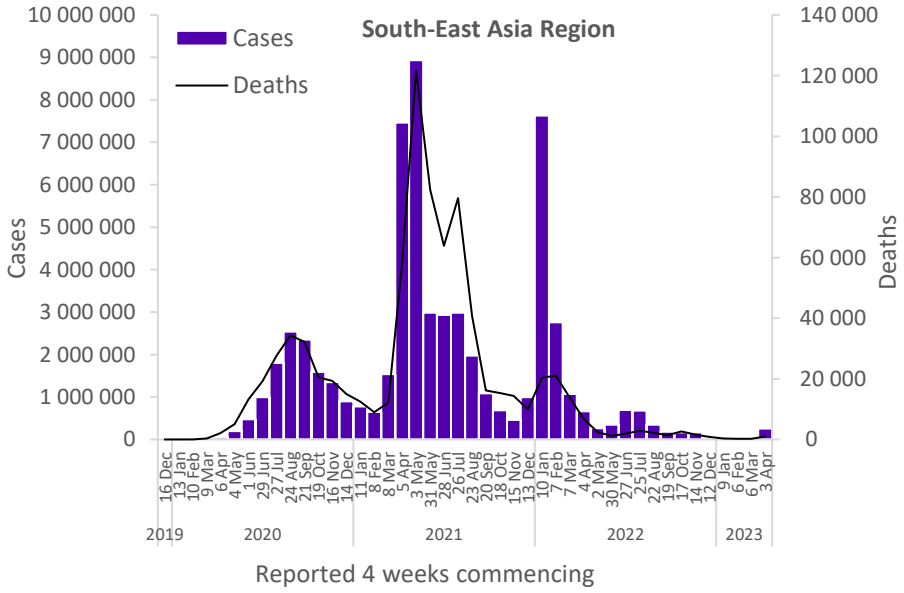


Updates from the European Region

South-East Asia Region

The South-East Asia Region reported nearly 257 000 new cases, a 454% 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 the Maldives (625 vs 72 new cases; +768%), India (222 784 vs 34 785 new cases; +540%), and Myanmar (792 vs 139 new cases; +470%). The highest numbers of new cases were reported from India (222 784 new cases; 16.1 new cases per 100 000; +540%), Indonesia (27 358 new cases; 10.0 new cases per 100 000; +168%), and Thailand (3502 new cases; 5.0 new cases per 100 000; +468%).

The number of new 28-day deaths in the Region increased by 317% as compared to the previous 28-day period, with 950 new deaths reported. The highest numbers of new deaths were reported from India (652 new deaths; <1 new death per 100 000; +515%), Indonesia (257 new deaths; <1 new death per 100 000; +165%), and Thailand (19 new deaths; <1 new death per 100 000; -5%).

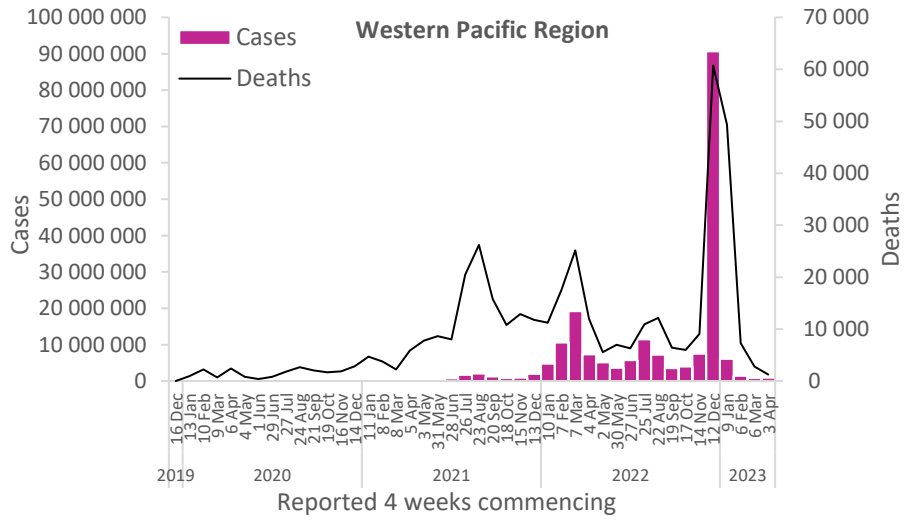


Updates from the South-East Asia Region

Western Pacific Region

The Western Pacific Region reported over 883 000 new cases, a 15% increase as compared to the previous 28-day period. Thirteen (37%) 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 (32 546 vs 350 new cases; +9199%), Mongolia (56 vs 14 new cases; +300%), and Singapore (98 318 vs 35 283 new cases; +179%). The highest numbers of new cases were reported from the Republic of Korea (330 509 new cases; 644.7 new cases per 100 000; +22%), Japan (251 158 new cases; 198.6 new cases per 100 000; +24%), and Singapore (98 318 new cases; 1680.6 new cases per 100 000; +179%).

The number of new 28-day deaths in the Region decreased by 56% as compared to the previous 28-day period, with 1234 new deaths reported. The highest numbers of new deaths were reported from Japan (589 new deaths; <1 new death per 100 000; -50%), the Republic of Korea (198 new deaths; <1 new death per 100 000; -20%), and Australia (177 new deaths; <1 new death per 100 000; -45%).



Updates from the Western Pacific Region

Hospitalizations and ICU admissions

At the global level, during the past 28 days (27 March to 23 April 2023), a total of 121 329 new hospitalizations and 2640 new intensive care unit (ICU) admissions were reported (Figure 5). This represents a 23% and 11% decrease in new hospitalizations and in ICU admissions respectively compared to the previous 28 days (27 February to 26 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, 49 (21%) countries reported data to WHO on new hospitalizations at least once (Figure 4). The European Region had the highest proportion of countries reporting data on new hospitalizations (22 countries; 36%), followed by the South-East Asia Region (three countries; 27%), the Eastern Mediterranean Region (four countries; 18%), the African Region (nine countries; 18%), 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 11% (27 countries).

Among the 27 countries consistently 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: Afghanistan (59 vs six; +883%), Qatar (330 vs 120; +175%), Singapore (1849 vs 729; +154%), Indonesia (3556 vs 1428; +149%), Malaysia (5867 vs 3777; +55%), France (11 305 vs 9024; +25%), Latvia (743 vs 616; +21%), and Estonia (563 vs 467; +21%). The highest number of new hospitalizations was reported from the United States of America (55 158 vs 77 424; -29%), France (11 305 vs 9024; +25%), and Italy (6808 vs 10 686; -36%).

Across the six WHO regions, in the past 28 days, a total of 35 (15%) countries reported data to WHO on new ICU admissions at least once (Figure 4). The European Region had the highest proportion of countries reporting data on new ICU admissions (17 countries; 28%), followed by the Eastern Mediterranean Region (four countries; 18%), the South-East Asia Region (two country; 18%), the Western Pacific Region (five countries; 14%), the Region of the Americas (five countries; 9%), and the African Region (two countries; 4%). The proportion of countries that consistently[i] reported new ICU admissions for the period was 10% (23 countries).

Among the 23 countries consistently[i] reporting new ICU admissions, nine (39%) countries showed an increase of 20% or greater in new ICU admissions during the past 28 days compared to the previous 28-day period: Indonesia (164 vs 81; +102%), Sweden (47 vs 26; +81%), Malaysia (49 vs 29; +69%), Ireland (19 vs 12; +58%), Latvia (44 vs 28; +57%), Brunei Darussalam (six vs four; +50%), Singapore (36 vs 25; +44%), Qatar (seven vs five; +40%), and France (1019 vs 850; +20%). The highest numbers of new ICU admissions were reported from France (1019 vs 850; +20%), Italy (226 vs 344; -34%), and Indonesia (164 vs 81; +102%).

[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. Weekly proportion of countries reporting new hospitalizations and ICU admissions: epidemiological week 5, 2020 to week 16, 2023

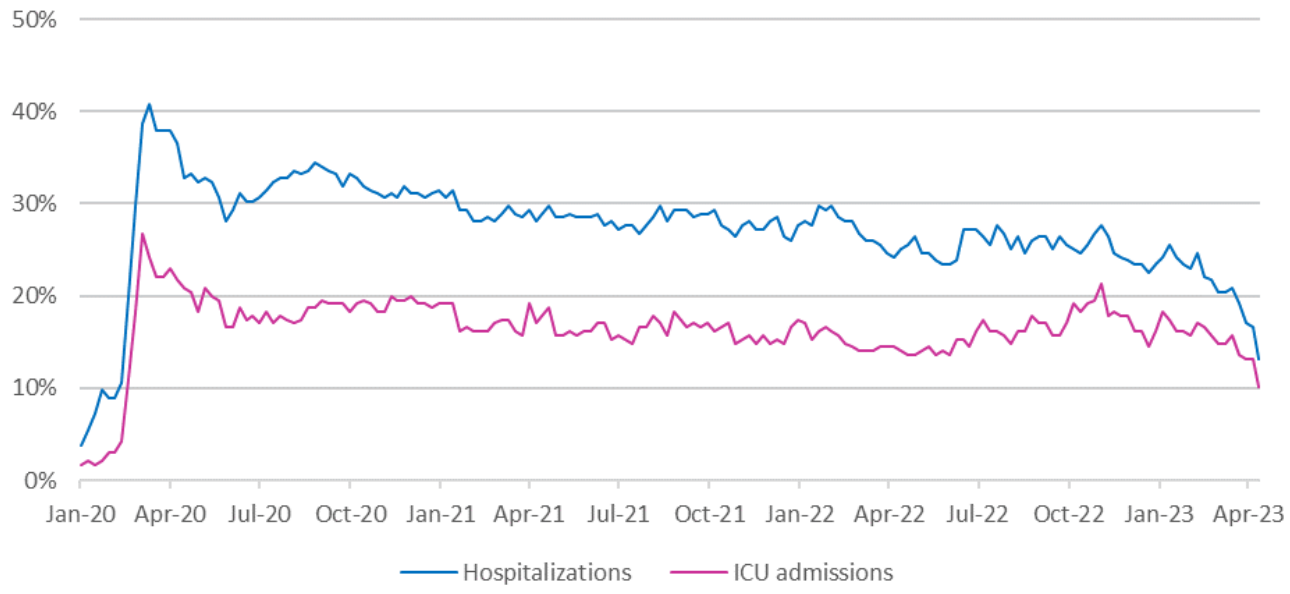
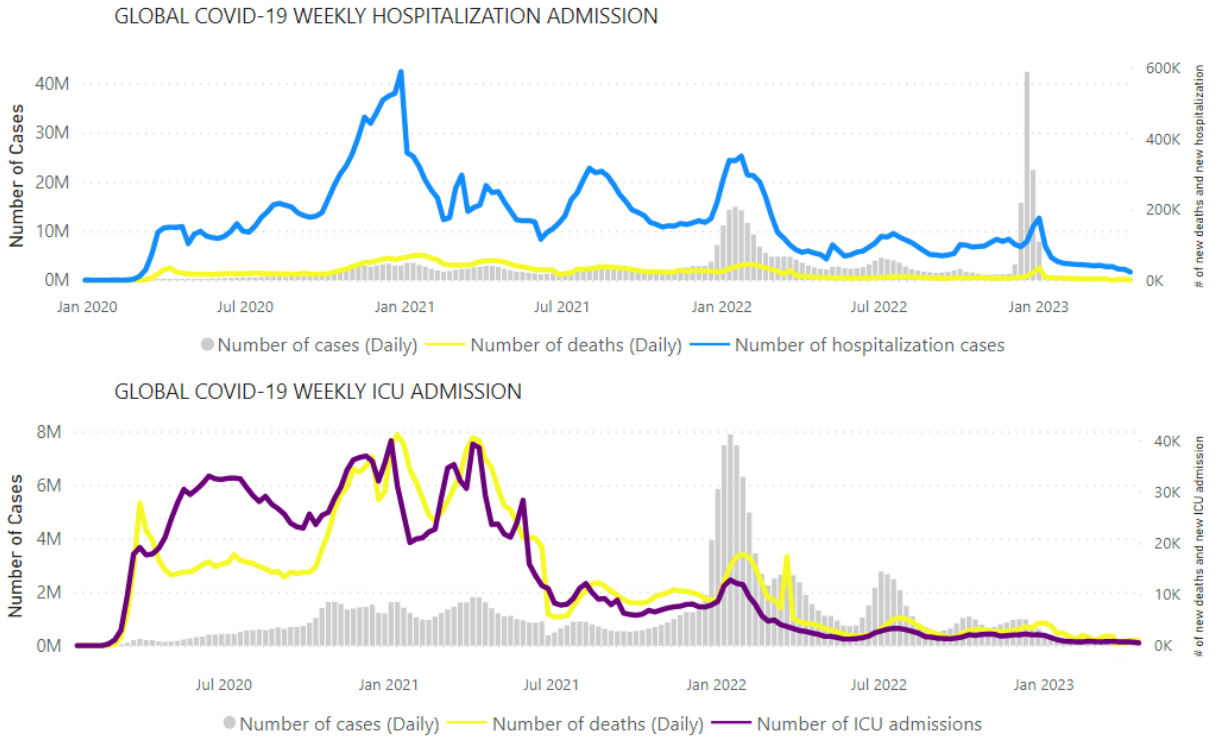


Figure 5. COVID-19 cases, deaths, hospitalizations, and ICU admissions reported weekly to WHO, as of 23 April 2023



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

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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