COVID-19 Weekly Epidemiological Update

Edition 140 published 27 April 2023

In this edition:

Global overview

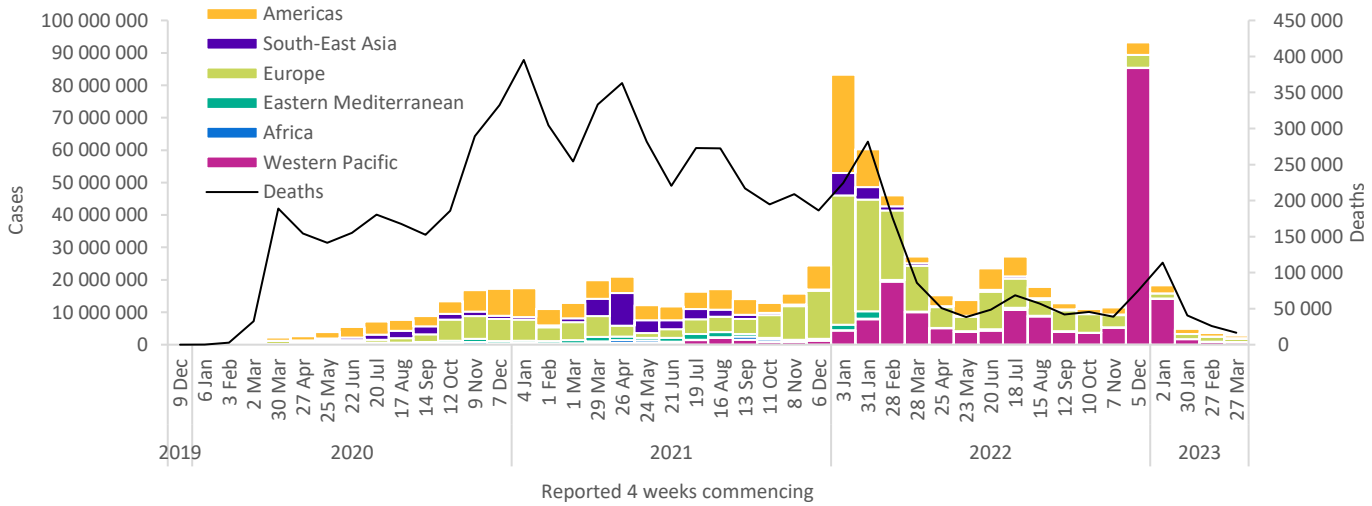
Data as of 23 April 2023

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%)**

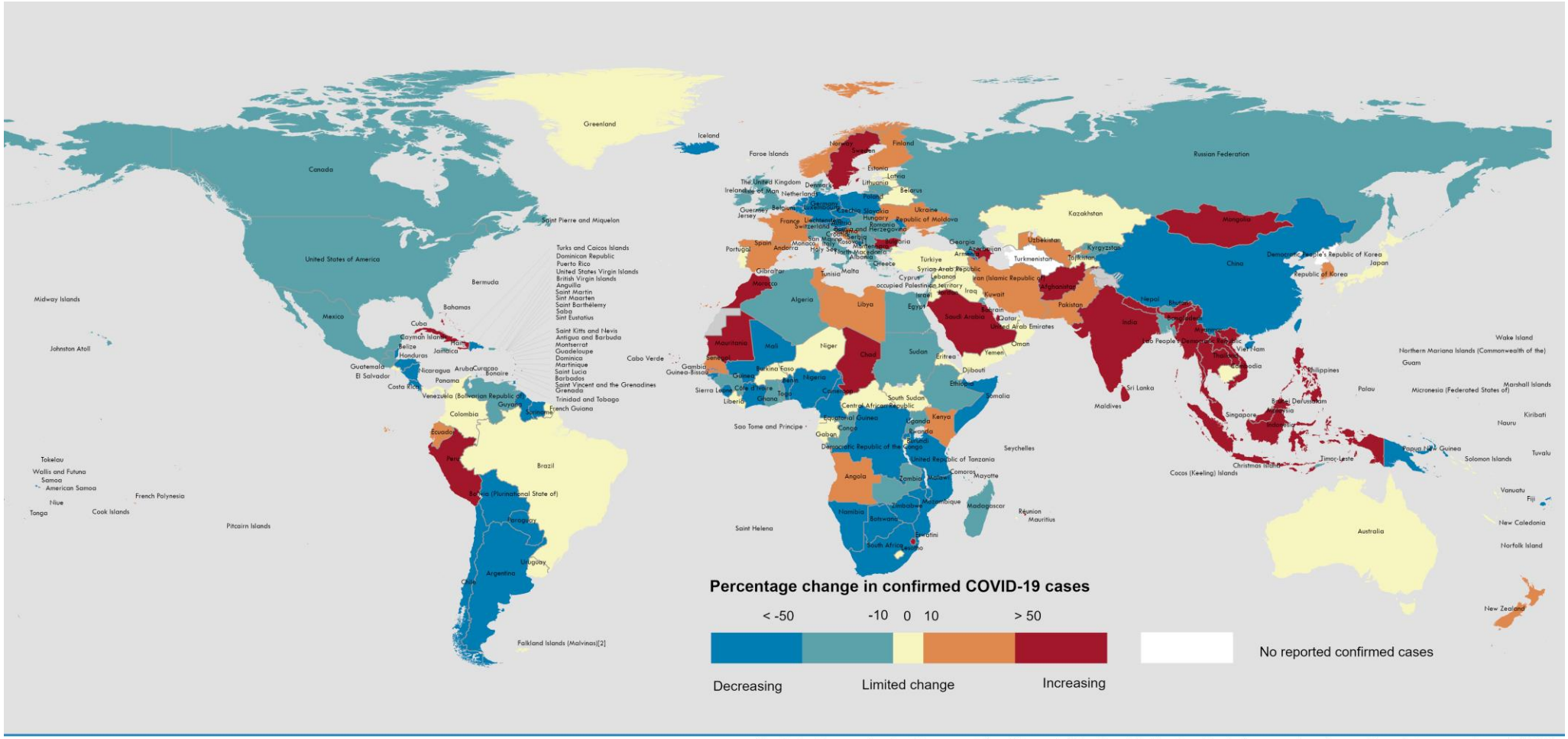
**Percent change in the number of newly confirmed cases/deaths in the past 28 days, compared to 28 days prior. Data from previous weeks are updated continuously with adjustments received from countries.*

***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**

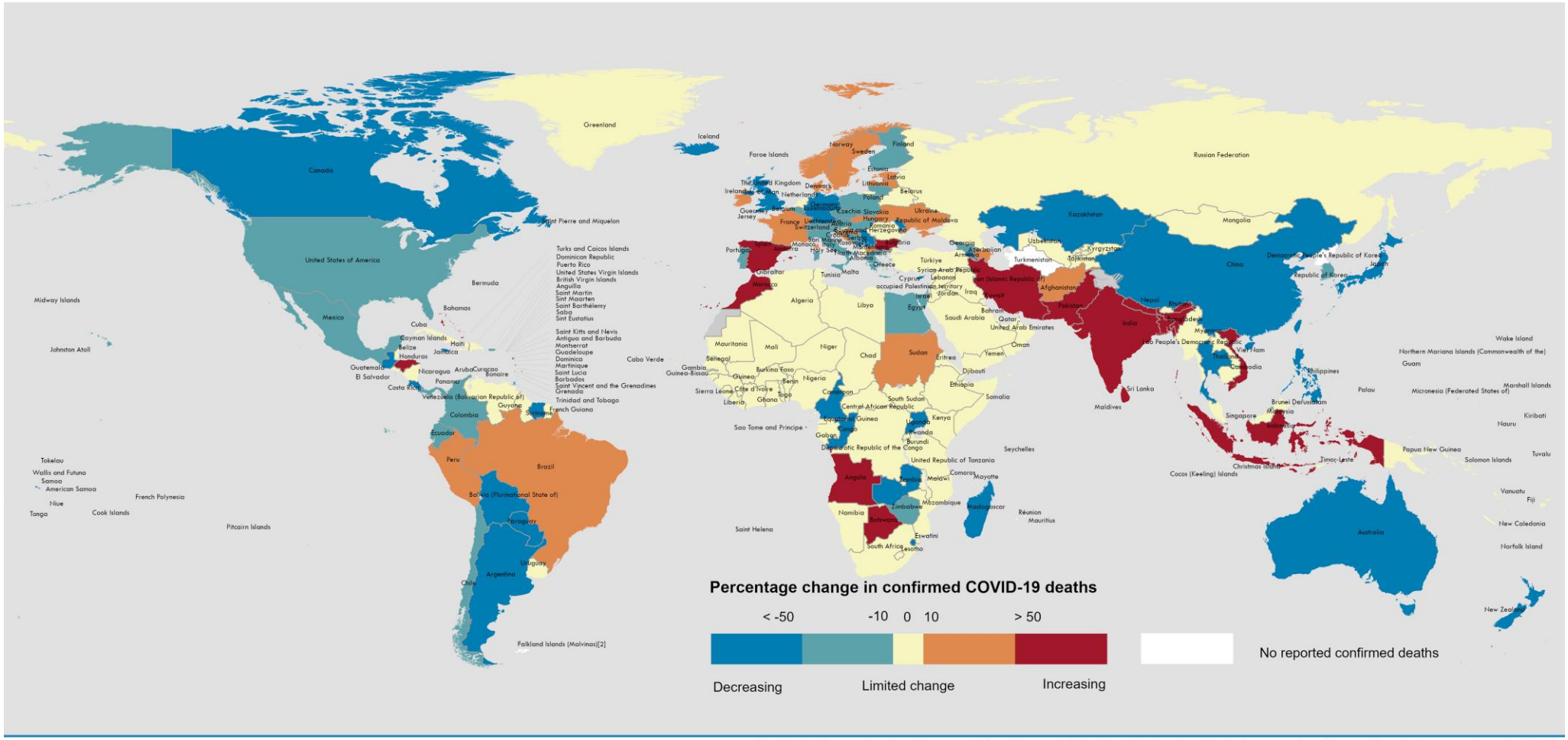


***Data Source**: World Health Organization*
***Map Production**: WHO Health Emergencies Programme*

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**



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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

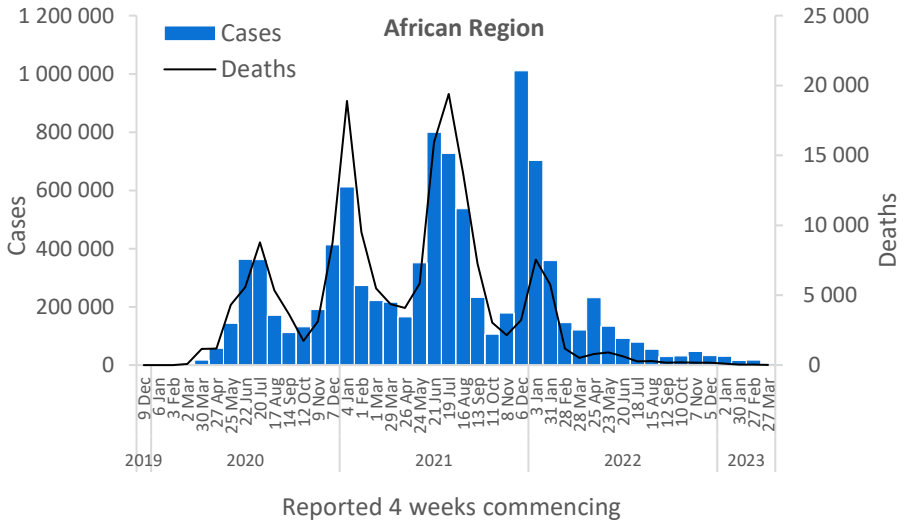
WHO regional overviews

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%).

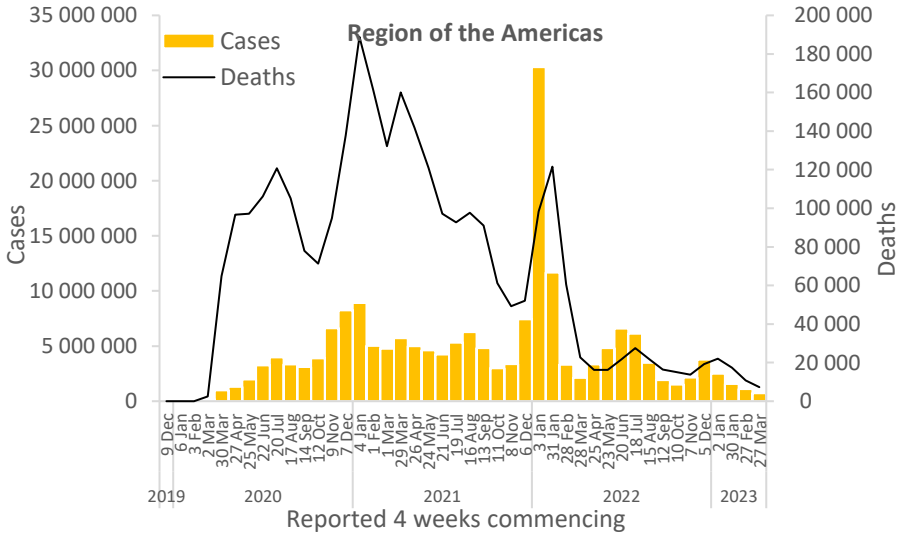


Updates from the African Region

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%).

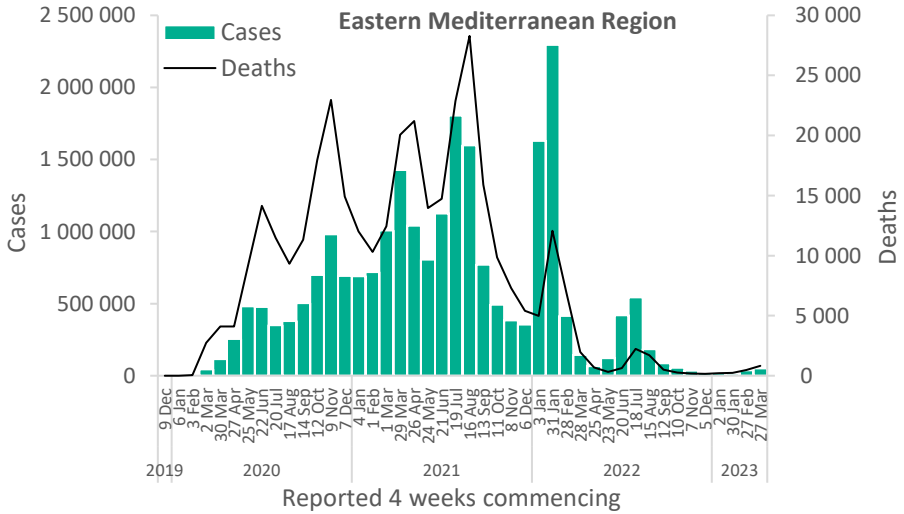


Updates from the Region of the Americas

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%).

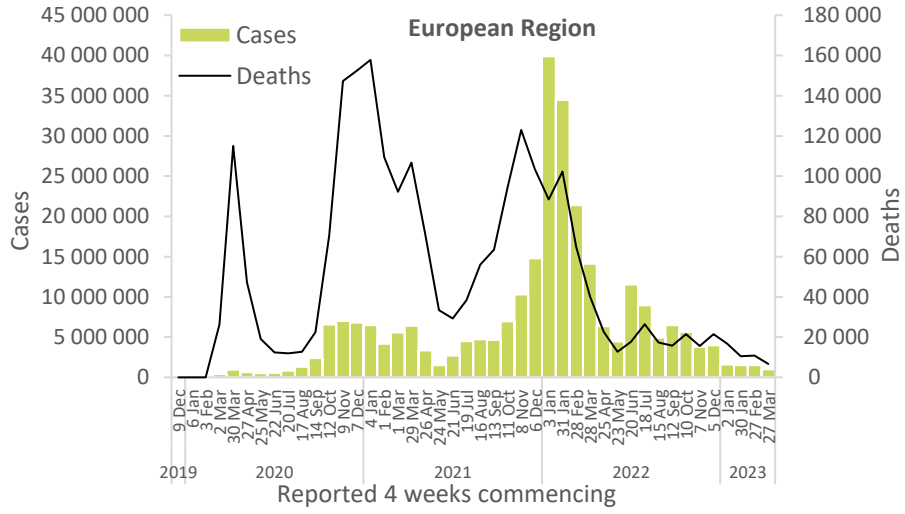


Updates from the Eastern Mediterranean Region

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%).

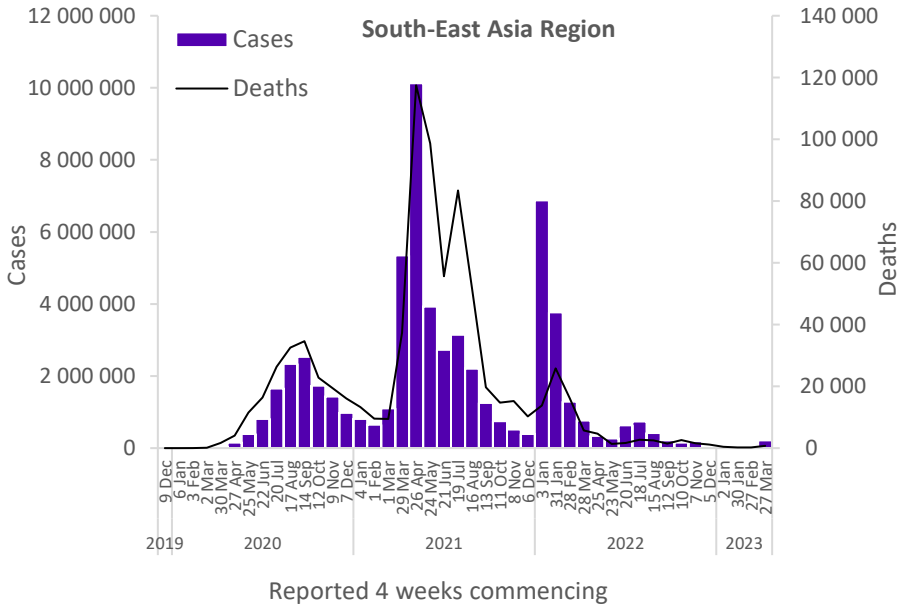


Updates from the European Region

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%).

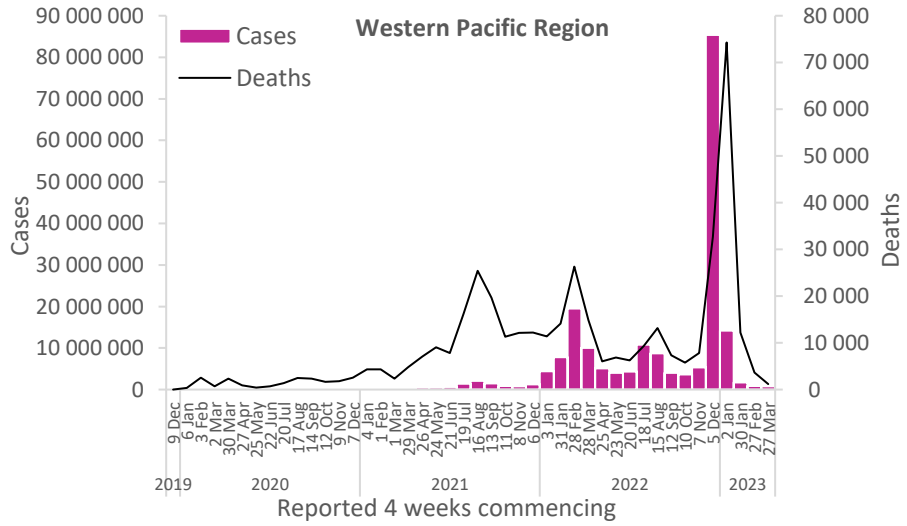


Updates from the South-East Asia Region

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

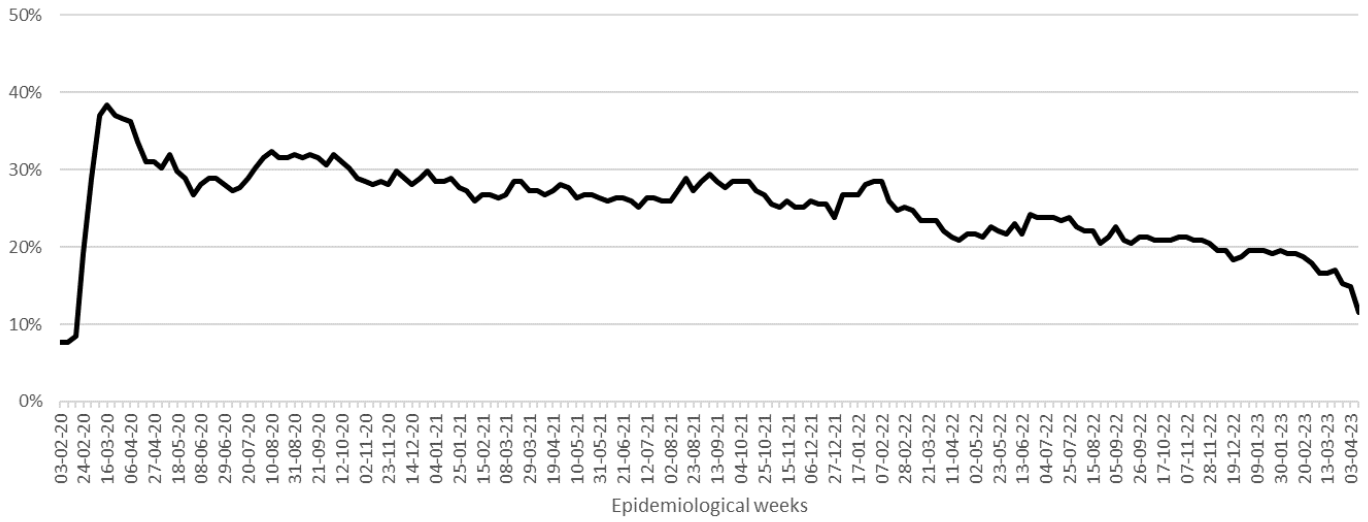
COVID-19 hospitalizations

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).

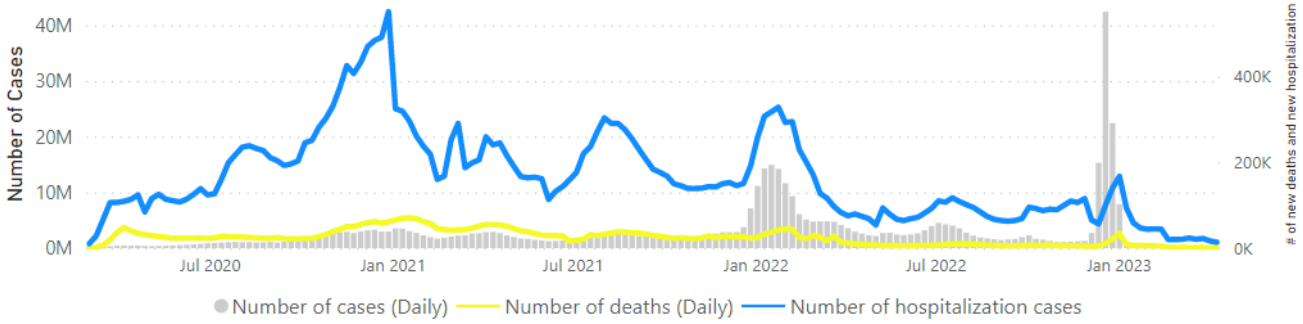
Among these 26 countries, six (23%) countries registered an increase of 20% or greater in hospitalizations during the past 28 days compared to the previous 28-day period: Qatar (325 vs 72; +351%), Singapore (1552 vs 548; +183%), Malaysia (5239 vs 3735; +40%), France (10 973 vs 8070; +36%), Latvia (755 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

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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