COVID-19 Weekly Epidemiological Update

Edition 130 published 15 February 2023

In this edition:

Global overview

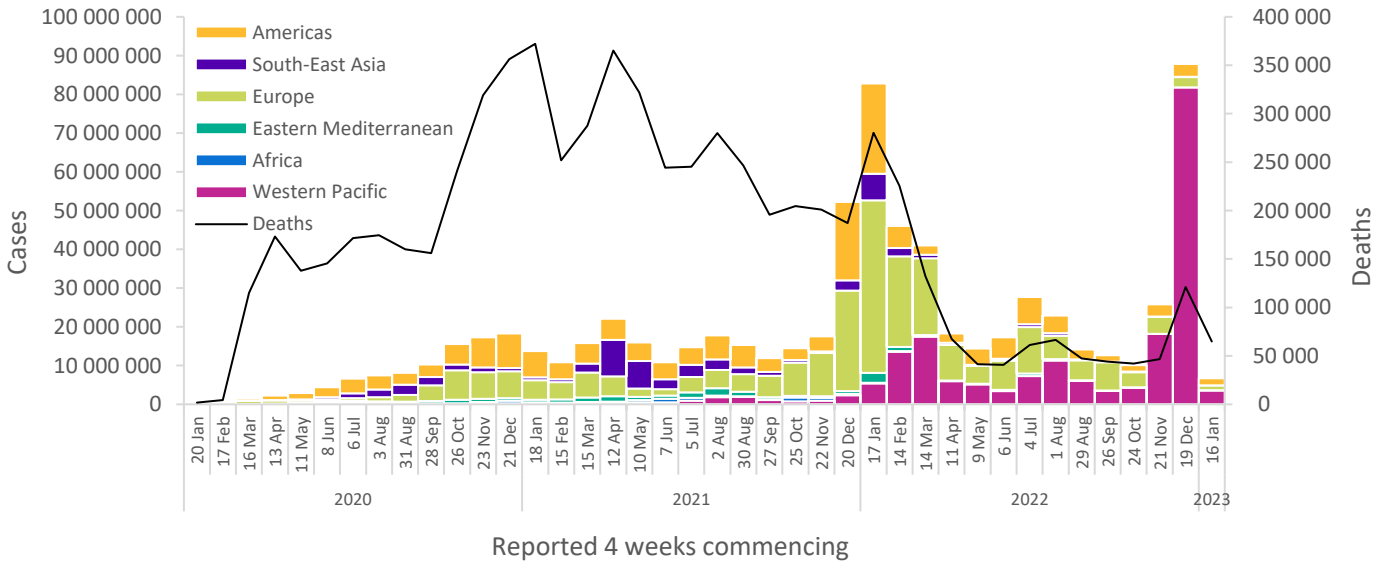
Data as of 12 February 2023

Globally, over 6.7 million new cases and over 64 000 deaths were reported in the last 28 days (16 January to 12 February 2023), a decrease of 92% and 47%, respectively, compared to the previous 28 days (Figure 1, Table 1). As of 12 February 2023, over 755 million confirmed cases and over 6.8 million deaths have been reported globally.

Current trends in reported COVID-19 cases are underestimates of the true number of global infections and reinfections as shown by prevalence surveys.[1–4] This is partly due to the reduction in testing and delays in reporting in many countries. Data presented in this report may be incomplete and should, therefore, be interpreted with caution. Additionally, data from previous weeks are continuously 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 helps to account for delays in reporting, smooth out weekly fluctuations in case numbers, and provide a clear picture of where the pandemic is accelerating or decelerating. Weekly 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 12 February 2023**



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

At the regional level, the number of newly reported 28-day cases decreased or remained stable across all WHO regions: the Western Pacific Region (-96%), the South-East Asia Region (-59%), the European Region (-52%), the Region of the Americas (-46%), the African Region (-23%), and the Eastern Mediterranean Region (-2%). The number of newly reported 28-day deaths decreased or remained stable across four regions: the South-East Asia Region (-60%), the Western Pacific Region (-58%), the European Region (-50%), and the Region of the Americas (-1%); while reported deaths numbers increased in two WHO regions: the African Region (+22%), and the Eastern Mediterranean Region (+33%).

At the country level, the highest numbers of new 28-day cases were reported from Japan (1 627 259 new cases; -61%), China (1 272 035 new cases; -98%), the United States of America (1 165 050 new cases; -36%), the Republic of Korea (543 308 new cases; -66%), and Brazil (332 404 new cases; -54%). The highest numbers of new 28-day deaths were reported from China (20 979 new deaths; -68%), the United States of America (14 326 new deaths; +12%), Japan (8294 new deaths; -7%), Brazil (2426 new deaths; -29%), and the United Kingdom (2269 new deaths; -47%).

Table 1. Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 12 February 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 (%)
Western Pacific	3 604 356 (54%)	-96%	**200 530 578 (27%)**	32 109 (50%)	-58%	**401 042 (6%)**
Americas	1 796 636 (27%)	-46%	**189 589 697 (25%)**	20 552 (32%)	-1%	**2 923 386 (43%)**
Europe	1 264 474 (19%)	-52%	**272 358 679 (36%)**	11 173 (17%)	-50%	**2 187 385 (32%)**
Africa	23 152 (<1%)	-23%	**9 490 136 (1%)**	93 (<1%)	22%	**175 277 (3%)**
Eastern Mediterranean	17 400 (<1%)	-2%	**23 248 933 (3%)**	231 (<1%)	33%	**349 416 (5%)**
South-East Asia	12 130 (<1%)	-59%	**60 760 963 (8%)**	271 (<1%)	-60%	**803 760 (12%)**
Global	**6 718 148 (100%)**	**-92%**	**755 979 750 (100%)**	**64 429 (100%)**	**-47%**	**6 840 279 (100%)**

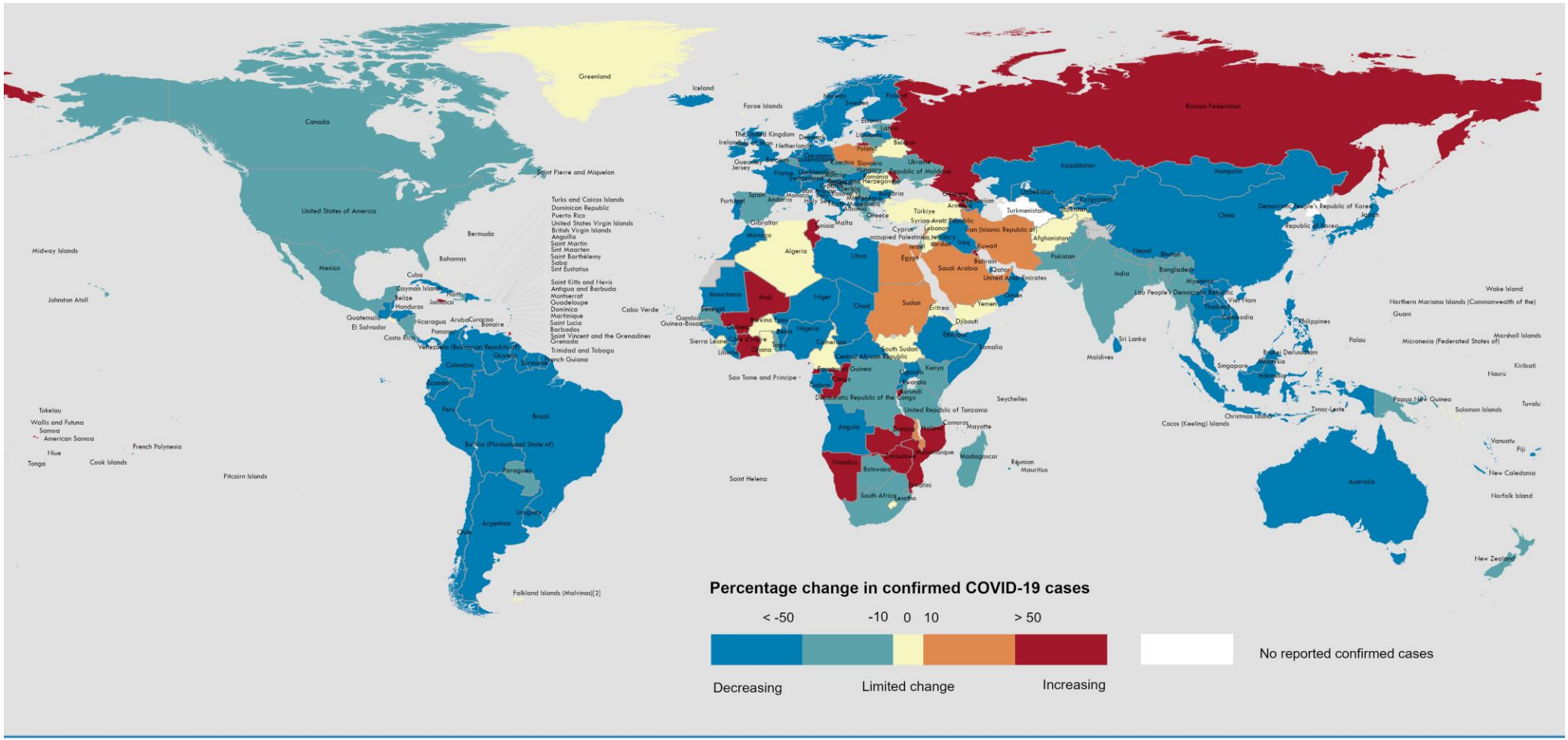
**Percent change in the number of newly confirmed cases/deaths in the past 28 days, compared to 28 days prior. Data from previous weeks are updated continuously with adjustments received from countries.*

***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 previous 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, 16 January to 12 February 2023**

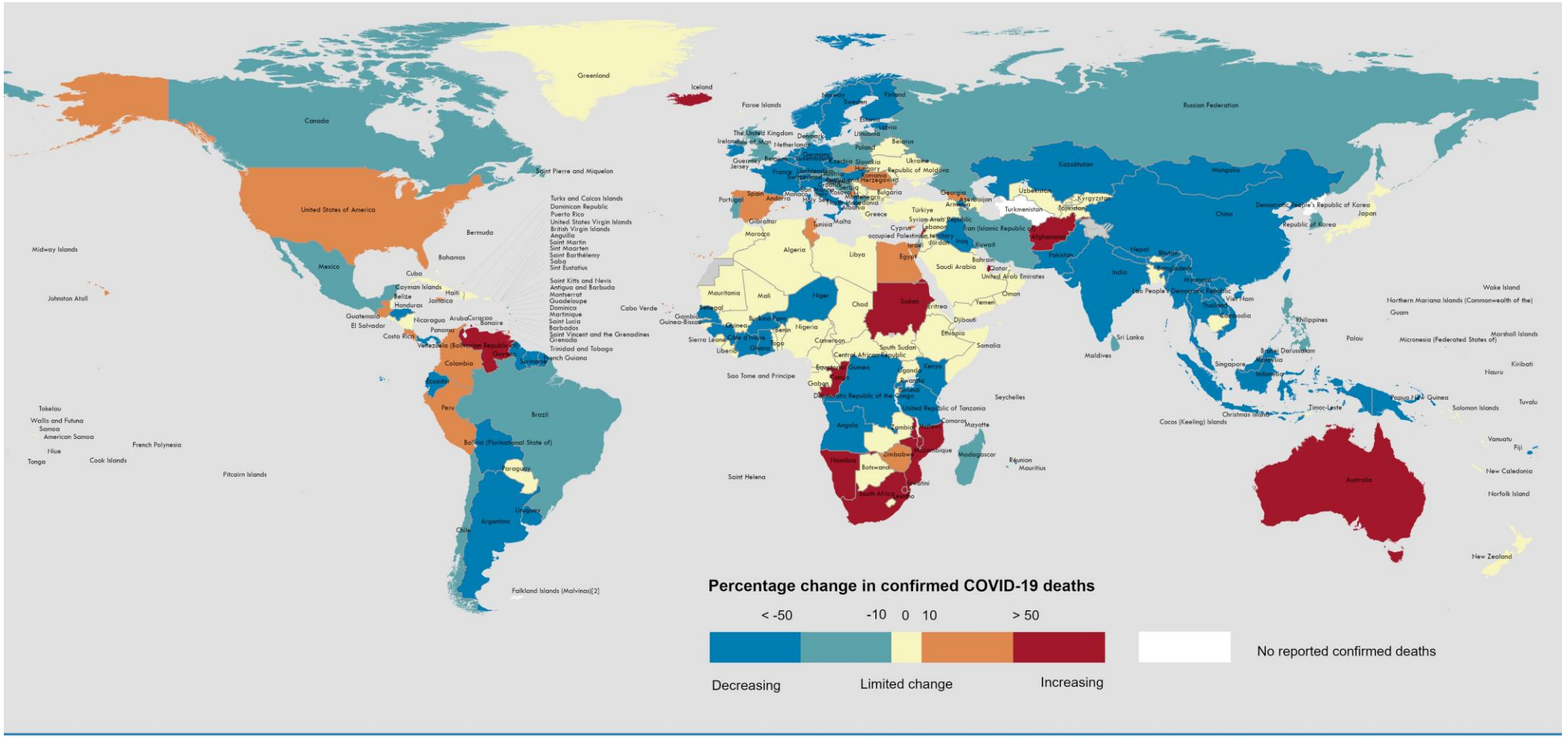


***Data Source**: World Health Organization*
***Map Production**: WHO Health Emergencies Programme*

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, 16 January to 12 February 2023**



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

SARS-CoV-2 variants of concern and Omicron subvariants under monitoring

Geographic spread and prevalence

Globally, from 16 January to 12 February 2023 (28 days), 63 236 SARS-CoV-2 sequences were shared through GISAID. Among these, 63 113 sequences were the Omicron variant of concern (VOC), accounting for over 99.8% of sequences reported globally.

In epidemiological week 4 (23 to 29 January 2023), Omicron BA.5 and its descendent lineages accounted for 42.7% prevalence (with 6219 sequences) of all submitted sequences. However, their share has declined when compared to week 52 (26 December 2022 to 1 January 2023, with 70.7% prevalence or 41 524 sequences). During the same reporting period, the prevalence of Omicron BA.2 and its descendent lineages remained stable (13.1% as compared to 13.3% in week 52). Pooled recombinant variant sequences have shown an increase in relative prevalence from 10.6% (with 6243 sequences) in week 52, 2022 to 32.7% (with 4758 sequences) in week 4, 2023. The majority of these recombinant variants in week 4 was XBB.1.5 (26.1% among all sequences). In addition, recombinant variant XBF accounted for 1.2% among all sequences. Unassigned sequences (presumably Omicron) account for 11.4% of sequences submitted to GISAID in week 4. Omicron BA.1, BA.3 and BA.4 variants and their descendent lineages all account for <1% prevalence.

WHO currently has seven Omicron subvariants under monitoring.[5] These include BF.7 (BA.5 + R346T mutation in spike); BQ.1* (including BQ.1.1, with BA.5 + R346T, K444T, N460K mutations in spike); BA.2.75* (including BA.2.75.2); CH.1.1 (BA.2.75 + L452R, F486S); XBB*; XBB.1.5 and XBF. Since the last Weekly Epidemiological Update issued on 8 February 2023, XBF subvariant has been added to the list. These variants are included due to their observed transmission advantage relative to other circulating variants and additional amino acid changes that are known or suspected to confer fitness advantage.

Regionally, in epidemiological week 4, BA.5* was dominant in the Western Pacific Region (18.8%, 272/1450 sequences), XBB.1.5* was dominant in the Region of the Americas (25.1%, 3123/12 442 sequences), while BQ.1* was dominant in the European Region (21.1%, 2395/11 333 sequences). It was not feasible to determine the dominant circulation variant for regions submitting fewer than 100 sequences in week 4.

XBF, with first reported sequences on 27 July 2022, is a BA.5.2.3 and CJ.1 (BA.2.75.3 sublineage) recombinant. XBF has the following additional mutations in the spike protein when compared to BA.5: K147E, W152R, F157L, I210V, G257S, G339H, R346T, G446S, N460K, F486P, F490S. In laboratory studies, the mutation F486P has been shown to have increased transmissibility[6] while R346T and N460K have been shown to confer immune escape.[7] As of 12 February 2023, XBF has been reported from 46 countries. Seven of these countries (Australia, New Zealand, Austria, Denmark, the United Kingdom, Sweden, and the United States of America) have reported more than 100 sequences to date.

The impact of variants differs by country depending on various factors such as previous immunity and public health and social measures (PHSM) in place. There is currently no reported epidemiological evidence that XBF leads to a rise in cases, hospitalization or deaths.

* Indicates all descendent lineages

Figure 4. Panel A and B: The number and percentage of SARS-CoV-2 sequences, from 1 August 2022 to 29 January 2023

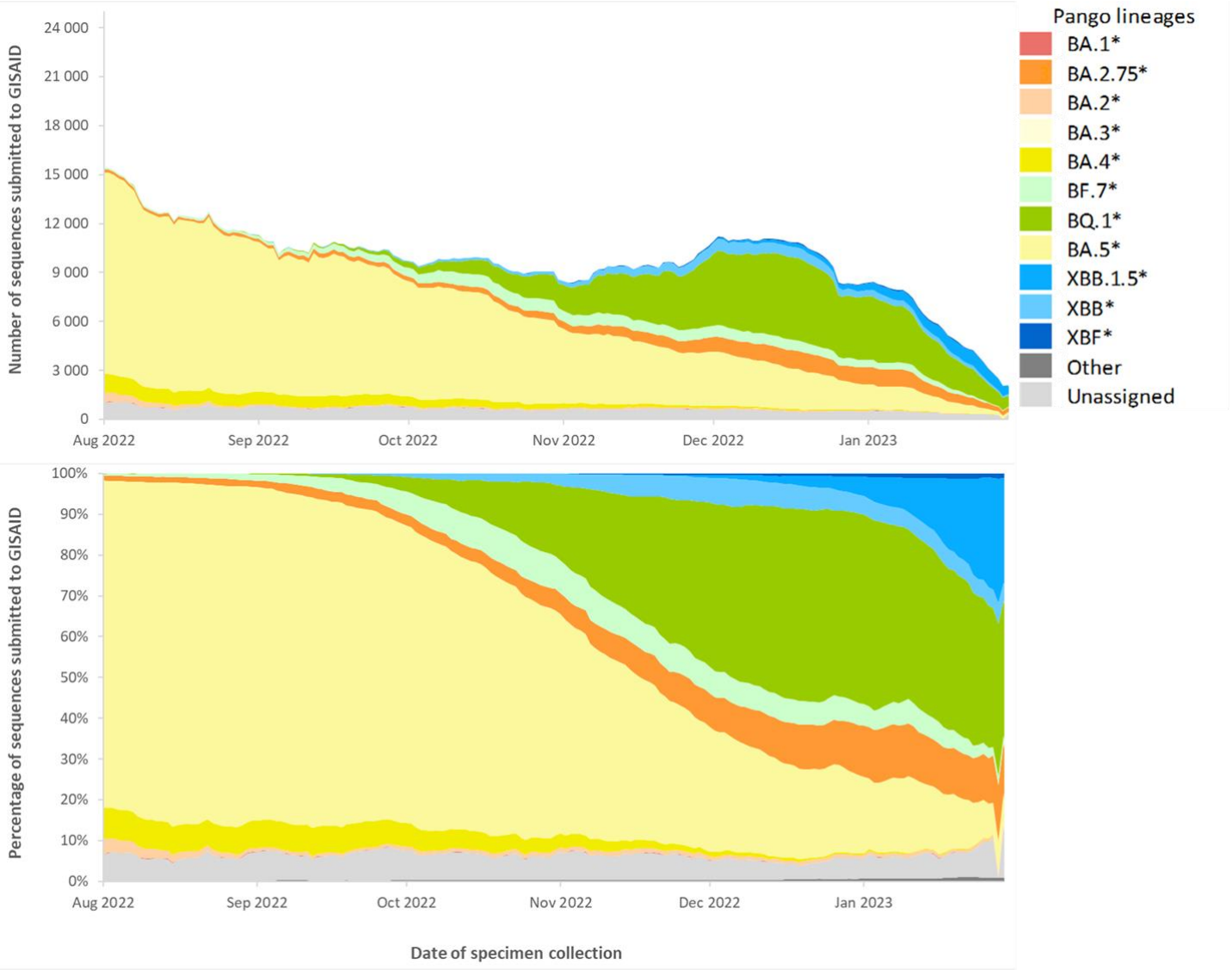


Figure 4 Panel A shows the number, and **Panel B** the percentage, of all circulating variants since July 2022. Omicron sister-lineages and additional Omicron VOC descendent lineages under further monitoring are shown. *BA.1*, BA.2*, BA.3*, BA.4* and BA.5** (* indicates inclusion of descendent lineages) include all BA.1, BA.2, BA.3, BA.4 and BA.5 pooled descendent lineages, except several Omicron subvariants under monitoring shown individually. The *Unassigned* category includes lineages pending for a PANGO lineage name, whereas the *Other* category includes lineages that are assigned but not listed in the legend. Source: SARS- CoV-2 sequence data and metadata from GISAID, from 1 August 2022 to 29 January 2023.

Table 2. Relative proportions of SARS-CoV-2 sequences from 26 December 2022 to 29 January 2023, by specimen collection date

Lineage	Countries	Sequences	2022-52	2023-01	2023-02	2023-03	2023-04
BA.1*	188	2 223 183	0.01	0.02	0.02	0.02	0.03
BA.2*	177	2 062 137	0.85	0.80	0.84	0.76	0.63
BA.3*	28	782	0.00	0.00	0.00	0.00	0.00
BA.4*	142	176 906	0.39	0.33	0.22	0.17	0.18
BA.5*	162	1 591 990	18.82	18.07	15.45	12.05	7.33
BF.7*	100	85 573	5.40	5.43	5.34	3.88	2.00
BQ.1*	123	329 645	46.46	43.46	41.26	38.35	33.37
BA.2.75*	112	99 594	12.47	12.87	11.45	10.99	12.43
XBB*	101	45 958	4.53	4.42	4.77	4.43	4.48
XBB.1.5*	67	28 335	4.64	7.47	12.69	20.99	26.11
XBF*	39	4494	0.83	0.98	1.18	1.34	1.19
Unassigned	88	263 776	4.96	5.44	6.12	5.96	11.36
Other	206	6 664 565	0.64	0.71	0.67	1.06	0.88

Table 2 shows the number of countries reporting the indicated lineages, the total number of sequences reported and the prevalence of the lineages for the last five epidemiological weeks. *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 several Omicron subvariants under monitoring shown individually. The *Unassigned* category includes lineages pending for a PANGO lineage name, whereas the *Other* category includes lineages other than those listed in the legend. Data source: sequences and metadata from GISAID, retrieved on 13 February 2023. Proportions are shown as percentage.

Vaccine effectiveness (VE) of primary series and booster vaccination against the Omicron variant of concern (VOC)

Forest plots displaying the effectiveness of COVID-19 vaccines against Omicron are available on View-hub.org and updated regularly (last updated 9 February 2023). All data are collected as part of an ongoing systematic review of COVID-19 vaccine effectiveness studies (methods described here). The following plots are available:

- Primary series and booster dose vaccine effectiveness (VE) for all vaccines with available data
- VE for various sub-populations of interest
- Absolute and relative vaccine effectiveness of a second booster dose (for more information on interpreting relative VE, see the June 29th Weekly Epidemiological Update)
- Duration of VE over time for vaccines with available data
- Absolute booster dose VE for bivalent vaccines

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

Emerging evidence on mRNA bivalent vaccines, which contain both ancestral strain virus and Omicron variant, show that a booster dose of a bivalent vaccine improves protection against symptomatic and severe disease compared to unvaccinated persons; in addition, persons receiving a second or third booster dose of bivalent vaccine had improved protection compared to persons receiving the first or second booster doses of monovalent mRNA vaccine, respectively. As 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; more evidence is needed to evaluate if the bivalent mRNA vaccines provide improved protection over the monovalent vaccines.

Neutralizing antibody studies can provide early insights into vaccine performance against new and emerging variants of concern and their subvariants. For more information about the capacity of COVID-19 vaccines to neutralize various Omicron sub-variants, please see a recent systematic review of post-vaccination neutralization responses to Omicron BA.1, BA.2, BA.3, and BA.4/BA.5. In addition, results of a living systematic review of neutralization studies are updated regularly on VIEW-hub.org (last updated 13 February 2023).

The totality of the evidence to date suggests that neutralizing antibody response of first booster vaccination against Omicron BA.1 is approximately six-fold lower compared to the ancestral strain, which is a greater reduction than was observed with previous VOCs. In addition, the median 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. Primary series neutralization against Omicron (without a booster) was too poor to enable accurate comparisons of fold reductions for subvariants.

Additional resources

- Tracking SARS-CoV-2 Variants
- WHO updated rapid risk assessment of XBB.1.5, published on 25 January 2023
- Genomic sequencing of SARS-CoV-2: a guide to implementation for maximum impact on public health
- VIEW-hub: repository for the most relevant and recent vaccine data

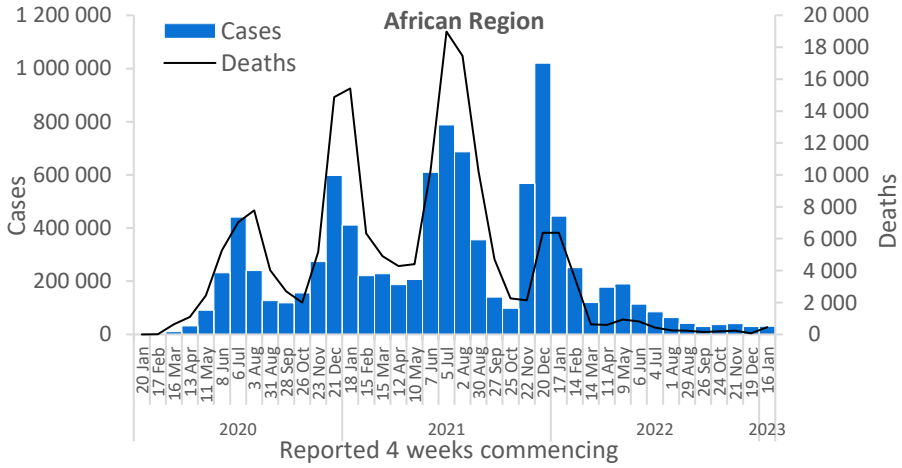
WHO regional overviews

Data for 16 January to 12 February 2023

African Region

The African Region reported over 23 000 new cases, a 23% decrease as compared to the previous 28-day period. Nine (18%) 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 the Republic of the Congo (nine vs one new cases; +800%), Mali (38 vs five new cases; +660%), and Zimbabwe (2634 vs 890 new cases; +196%). The highest numbers of new cases were reported from South Africa (5347 new cases; 9.0 new cases per 100 000; -18%), Zambia (5050 new cases; 27.5 new cases per 100 000; +74%), and Réunion (2770 new cases; 309.4 new cases per 100 000; -61%).

The number of new 28-day deaths in the Region increased by 22% as compared to the previous 28-day period, with 93 new deaths reported. The highest numbers of new deaths were reported from South Africa (27 new deaths; <1 new death per 100 000; no deaths reported the previous 28-day period), Zimbabwe (20 new deaths; <1 new death per 100 000; +43%), and Zambia (15 new deaths; <1 new death per 100 000; similar to the previous 28-day period).

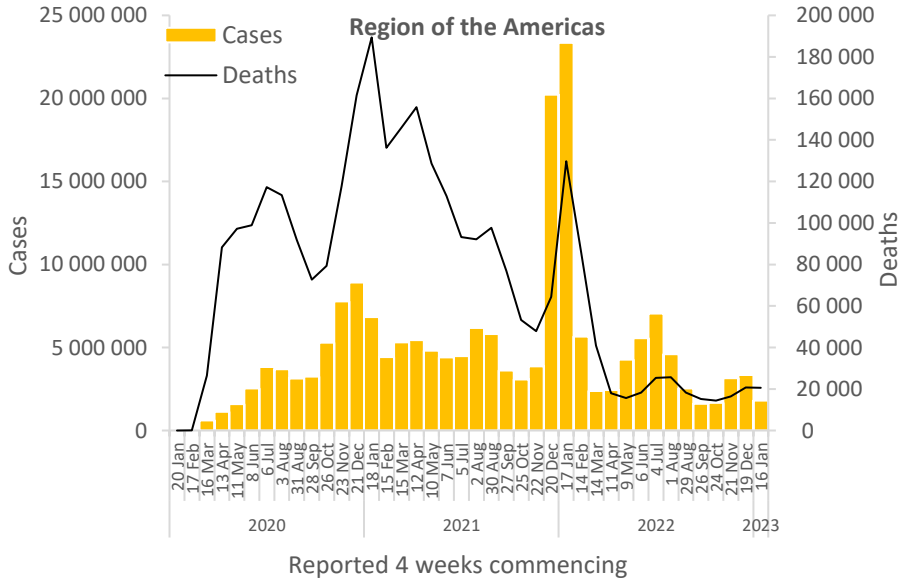


Updates from the African Region

Region of the Americas

The Region of the Americas reported just under 1.8 million new cases, a 46% 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 Saint Lucia (121 vs 20 new cases; +505%), Turks and Caicos Islands (58 vs 16 new cases; +263%), and Jamaica (937 vs 299 new cases; +213%). The highest numbers of new cases were reported from the United States of America (1 165 050 new cases; 352.0 new cases per 100 000; -36%), Brazil (332 404 new cases; 156.4 new cases per 100 000; -54%), and Mexico (73 053 new cases; 56.7 new cases per 100 000; -41%).

The number of new 28-day deaths in the Region decreased by 1% as compared to the previous 28-day period, with 20 552 new deaths reported. The highest numbers of new deaths were reported from the United States of America (14 326 new deaths; 4.3 new deaths per 100 000; +12%), Brazil (2426 new deaths; 1.1 new deaths per 100 000; -29%), and Canada (889 new deaths; 2.4 new deaths per 100 000; -25%).

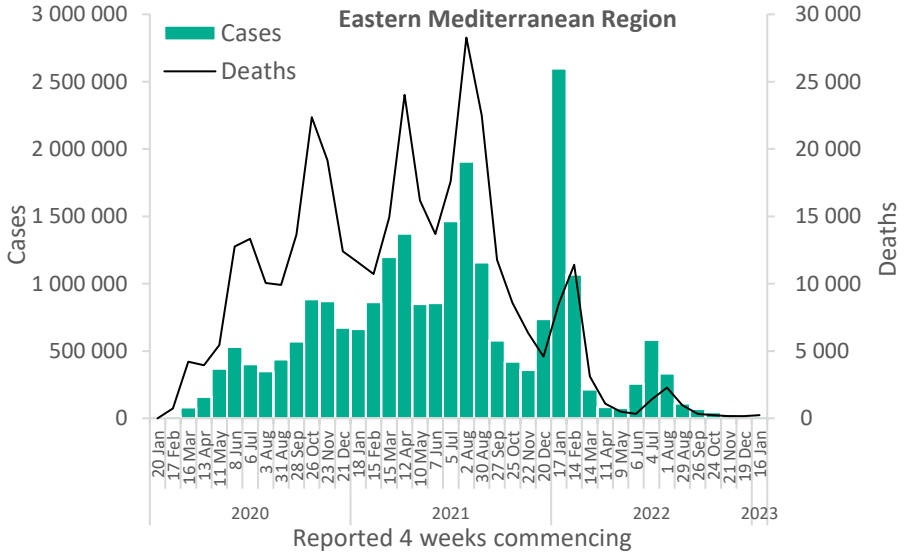


Updates from the Region of the Americas

Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 17 000 new cases, a 2% decrease 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 Tunisia (2748 vs 447 new cases; +515%), Sudan (56 vs 39 new cases; +44%), and Egypt (110 vs 81 new cases; +36%). The highest numbers of new cases were reported from Lebanon (4770 new cases; 69.9 new cases per 100 000; +32%), the Islamic Republic of Iran (2872 new cases; 3.4 new cases per 100 000; +32%), and Tunisia (2748 new cases; 23.3 new cases per 100 000; +515%).

The number of new 28-day deaths in the Region increased by 33% as compared to the previous 28-day period, with 231 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (55 new deaths; <1 new death per 100 000; -15%), Saudi Arabia (49 new deaths; <1 new death per 100 000; +2%), and Lebanon (42 new deaths; <1 new death per 100 000; +133%).

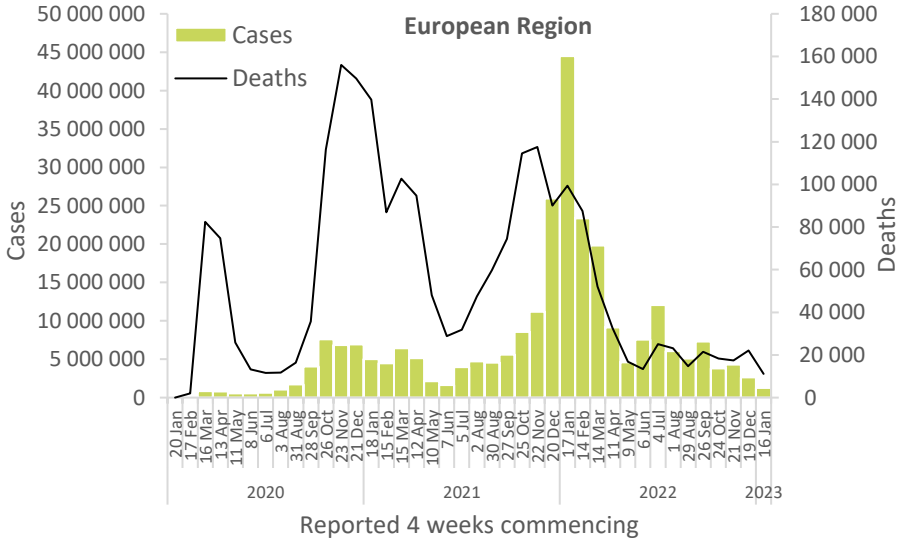


Updates from the Eastern Mediterranean Region

European Region

The European Region reported over 1.2 million new cases, a 52% decrease as compared to the previous 28-day period. Six (10%) of the 61 countries for which data are available reported increases in new cases of 20% or greater, with the highest proportional increases observed in Georgia (6795 vs 3528 new cases; +93%), Kosovo[1] (302 vs 170 new cases; +78%), and Armenia (285 vs 166 new cases; +72%). The highest numbers of new cases were reported from Germany (296 686 new cases; 356.7 new cases per 100 000; -51%), the Russian Federation (216 104 new cases; 148.1 new cases per 100 000; +54%), and Italy (138 179 new cases; 231.7 new cases per 100 000; -69%).

The number of new 28-day deaths in the Region decreased by 50% as compared to the previous 28-day period, with 11 173 new deaths reported. The highest numbers of new deaths were reported from the United Kingdom (2269 new deaths; 3.3 new deaths per 100 000; -47%), Italy (1393 new deaths; 2.3 new deaths per 100 000; -50%), and the Russian Federation (1153 new deaths; <1 new death per 100 000; -18%).

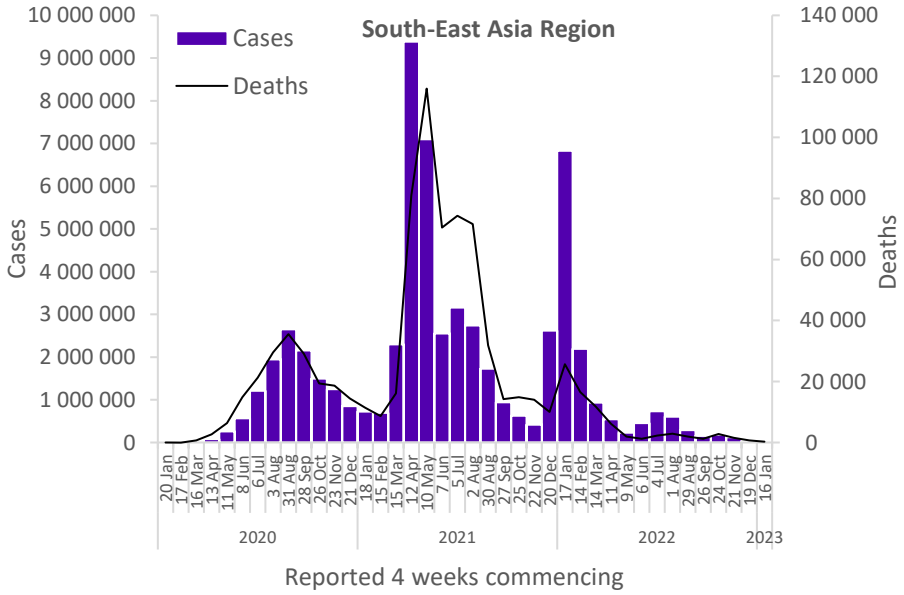


Updates from the European Region

South-East Asia Region

The South-East Asia Region reported over 12 000 new cases, a 59% decrease as compared to the previous 28-day period. No country has reported increases in new cases of 20% or greater compared to the previous 28-day period. The highest numbers of new cases were reported from Indonesia (6713 new cases; 2.5 new cases per 100 000; -59%), India (3078 new cases; <1 new case per 100 000; -40%), and Thailand (1743 new cases; 2.5 new cases per 100 000; -75%).

The number of new 28-day deaths in the Region decreased by 60% as compared to the previous 28-day period, with 271 new deaths reported. The highest numbers of new deaths were reported from Indonesia (137 new deaths; <1 new death per 100 000; -58%), Thailand (102 new deaths; <1 new death per 100 000; -64%), and India (24 new deaths; <1 new death per 100 000; -56%).

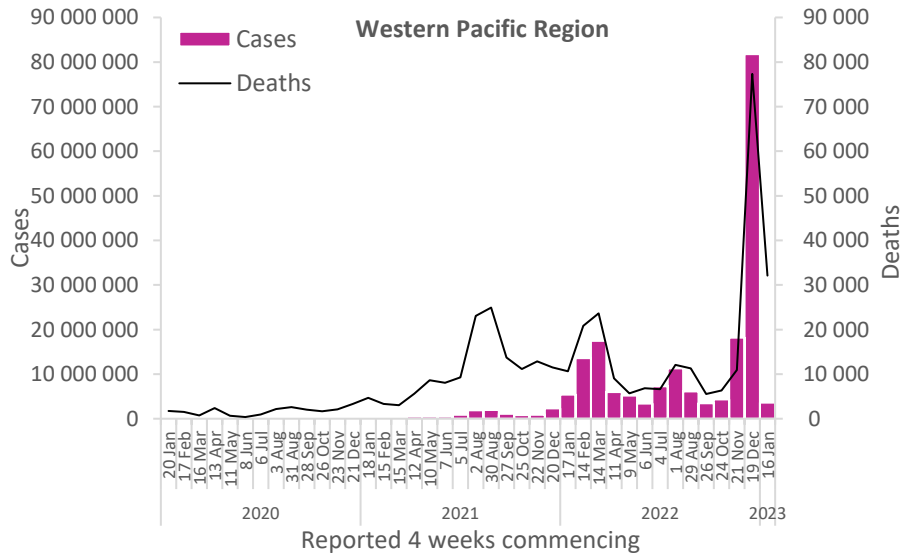


Updates from the South-East Asia Region

Western Pacific Region

The Western Pacific Region reported over 3.6 million new cases, a 96% decrease as compared to the previous 28-day period. One (3%) of the 35 countries for which data are available reported increases in new cases of 20% or greater: Samoa (106 vs 26 new cases; +308%). The highest numbers of new cases were reported from Japan (1 627 259 new cases; 1286.6 new cases per 100 000; -61%), China (1 272 035 new cases; 86.5 new cases per 100 000; -98%), and the Republic of Korea (543 308 new cases; 1059.7 new cases per 100 000; -66%).

The number of new 28-day deaths in the Region decreased by 58% as compared to the previous 28-day period, with 32 109 new deaths reported. The highest numbers of new deaths were reported from China (20 979 new deaths; 1.4 new deaths per 100 000; -68%), Japan (8294 new deaths; 6.6 new deaths per 100 000; -7%), and Australia (1511 new deaths; 5.9 new deaths per 100 000; +104%).



Updates from the Western Pacific Region

Hospitalizations and ICU admissions

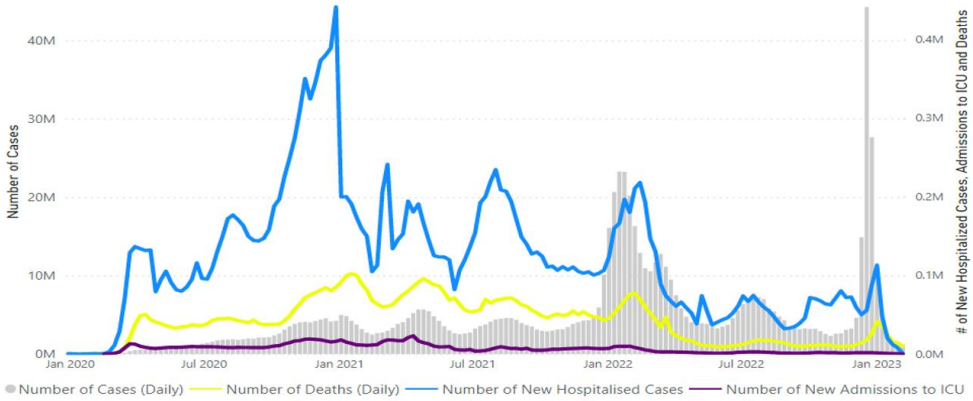
At the global level, during the past 28 days (from 9 January 2023 to 5 February 2023), a total of 88 814 new hospitalizations and 3008 new intensive care unit (ICU) admissions were reported. This represents a decrease in both new hospitalizations and ICU admissions of 53% and 24%, respectively, compared to the previous 28 days (2 January to 29 January 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, 47 (20%) countries reported data to WHO on new hospitalizations at least once. The region with the highest proportion of countries reporting data on new hospitalizations was the European Region (25 countries; 41%), followed by the Eastern Mediterranean Region (five countries; 23%), the Region of the Americas (seven countries; 13%), the African Region (six countries; 12%), the Western Pacific Region (three countries; 9%), and the South-East Asia Region (one country; 9%). The proportion of countries that consistently [#] reported new hospital admissions for the period was 11% (26 countries).

Among 15 countries that reported consistently during the period with more than 200 total new hospitalizations, no country showed an increasing trend compared to the previous 28 days period (12 December 2022 to 8 January 2023)

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 region with the highest proportion of countries reporting data on new ICU admissions was the European Region (25 countries; 41%) followed by the Eastern Mediterranean Region (five countries; 23%), the Region of the Americas (five countries; 9%), the Western Pacific Region (two countries; 6%), the African Region (one country; 2%). No country in the South-East Asia Region reported data on new ICU admissions during the past 28 days. The proportion of countries that consistently reported new ICU admissions for the period was 7% (16 countries).
Among 10 countries that reported consistently during the period with more than 40 total new ICU admissions, only one country showed an increasing trend compared to the previous 28 days period: Lithuania (116 vs 73; +59%).

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



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

[#] "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.

Annex 1. Data, table, and figure notes

Data presented are based on official laboratory-confirmed COVID-19 cases and deaths reported to WHO by country/territories/areas, largely based upon WHO case definitions and surveillance guidance. While steps are taken to ensure accuracy and reliability, all data are subject to continuous verification and change, and caution must be taken when interpreting these data as several factors influence the counts presented, with variable underestimation of true case and death incidences, and variable delays to reflecting these data at the global level. Case detection, inclusion criteria, testing strategies, reporting practices, and data cut-off and lag times differ between countries/territories/areas. A small number of countries/territories/areas report combined probable and laboratory-confirmed cases. Differences are to be expected between information products published by WHO, national public health authorities, and other sources.

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

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

[1] All references to Kosovo should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). In the map, the number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes.
[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).

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

Annex 2. SARS-CoV-2 variants assessment and classification

WHO, in collaboration with national authorities, institutions and researchers, routinely assesses if variants of SARS-CoV-2 alter transmission or disease characteristics, or impact the effectiveness of vaccines, therapeutics, diagnostics or public health and social measures (PHSM) applied to control disease spread. Potential variants of concern (VOCs), variants of interest (VOIs) or variants under monitoring (VUMs) are regularly assessed based on the risk posed to global public health.

The classifications of variants will be revised as needed to reflect the continuous evolution of circulating variants and their changing epidemiology. Criteria for variant classification, and the lists of currently circulating and previously circulating VOCs, VOIs and VUMs, are available on the WHO Tracking SARS-CoV-2 variants website. National authorities may choose to designate other variants and are strongly encouraged to investigate and report newly emerging variants and their impact.

WHO continues to monitor SARS-CoV-2 variants, including descendent lineages of VOCs, to track changes in prevalence and viral characteristics. The current trends describing the circulation of Omicron descendent lineages should be interpreted with due consideration of the limitations of the COVID-19 surveillance systems. These include differences in sequencing capacity and sampling strategies between countries, changes in sampling strategies over time, reductions in tests conducted and sequences shared by countries, and delays in uploading sequence data to GISAID.[8]

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