COVID-19 Weekly Epidemiological Update

Edition 134 published 16 March 2023

In this edition:

- Global overview
- SARS-CoV-2 variants of concern and Omicron subvariants under monitoring
- COVID-19 vaccination status of health and care workers
- WHO regional overviews
- Hospitalizations and ICU admissions

Global overview

Data as of 12 March 2023

Globally, nearly 4.1 million new cases and 28,000 deaths were reported in the last 28 days (13 February to 12 March 2023), a decrease of 40% and 57%, respectively, compared to the previous 28 days (Figure 1, Table 1); however, there are significant regional differences including increases in some regions. As of 12 March 2023, over 760 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 reductions 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 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 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. 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 12 March 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 European Region (+20%), the Eastern Mediterranean Region (+18%), and the South-East Asia Region (+14%); while cases decreased in three WHO regions: the Western Pacific Region (-68%), the African Region (-52%), and the Region of the Americas (-28%). The number of newly reported 28-day deaths decreased across five regions: the Western Pacific Region (-83%), the African Region (-75%), the South-East Asia Region (-45%), the Region of the Americas (-37%), and the European Region (-26%); while deaths increased in the Eastern Mediterranean Region (+35%).

At the country level, the highest numbers of new 28-day cases were reported from the United States of America (919,961 new cases; +21%), Japan (380,898 new cases; -77%), China (370,020 new cases; -71%), the Russian Federation (350,376 new cases; +62%), and Germany (338,306 new cases; +10%). The highest numbers of new 28-day deaths were reported from the United States of America (9,303 new deaths; -35%), Japan (2,598 new deaths; -69%), the United Kingdom (2,217 new deaths; -25%), Brazil (1,648 new deaths; -32%), and China (1,586 new deaths; -92%).

Table 1. Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 12 March 2023**

<table>
<thead>
<tr>
<th>WHO Region</th>
<th>New cases in last 28 days (%)</th>
<th>Change in new cases in last 28 days *</th>
<th>Cumulative cases (%)</th>
<th>New deaths in last 28 days (%)</th>
<th>Change in new deaths in last 28 days *</th>
<th>Cumulative deaths (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>1,562,969 (38%)</td>
<td>20%</td>
<td>2,739,648,852 (36%)</td>
<td>9274 (33%)</td>
<td>-26%</td>
<td>2,199,316 (32%)</td>
</tr>
<tr>
<td>Americas</td>
<td>1,309,633 (32%)</td>
<td>-28%</td>
<td>1,909,269,469 (25%)</td>
<td>13,017 (47%)</td>
<td>-37%</td>
<td>2,936,788 (43%)</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>1,149,206 (28%)</td>
<td>-68%</td>
<td>2,016,835,355 (27%)</td>
<td>5,210 (19%)</td>
<td>-83%</td>
<td>4,072,021 (6%)</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>20,767 (1%)</td>
<td>18%</td>
<td>23,270,168 (3%)</td>
<td>286 (1%)</td>
<td>35%</td>
<td>349,683 (5%)</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>13,778 (&lt;1%)</td>
<td>14%</td>
<td>60,774,741 (8%)</td>
<td>148 (1%)</td>
<td>-45%</td>
<td>803,908 (12%)</td>
</tr>
<tr>
<td>Africa</td>
<td>12,712 (&lt;1%)</td>
<td>-52%</td>
<td>9,506,309 (1%)</td>
<td>26 (&lt;1%)</td>
<td>-75%</td>
<td>175,312 (3%)</td>
</tr>
<tr>
<td>Global</td>
<td>4,069,065 (100%)</td>
<td>-40%</td>
<td>760,120,838 (100%)</td>
<td>27,955 (100%)</td>
<td>-57%</td>
<td>6,872,221 (100%)</td>
</tr>
</tbody>
</table>

*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 12 March 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 12 March 2023**

**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 13 February to 13 March 2023 (28 days), 65 348 SARS-CoV-2 sequences were shared through GISAID. Among these, 64 324 sequences were of Omicron descendental lineages, accounting for over 98.4% of sequences reported globally.

The global variant landscape is characterized by a continuous increase in prevalence of the recombinant variant XBB and its descendental lineages. XBB is a recombinant of BA.2.10.1 and BA.2.75, first reported on 13 August 2022 and which has since spread to 115 countries. XBB was designated as an Omicron subvariant under monitoring due to its genetic constellation and initial evidence of high capacity to cause reinfection. XBB has subsequently diversified into 25 descendental lineages, three of which show continued growth advantage and an increase in prevalence, notably XBB.1.5, XBB.1.9 and XBB.1.9.1. The latter two share the same genetic constellation in the spike region and are expected to have similar phenotypic characteristics as XBB.1.5. WHO monitors all XBB descendental lineages and performs regular risk assessments.†

At a global level, XBB* (XBB and its descendental lineages, excluding XBB.1.5) and XBB.1.5 are increasing in prevalence in all WHO regions and have become dominant in five of the six WHO regions, the exception being the Western Pacific Region. Due to the growth advantage of this recombinant variant, the replacement of former circulating variants was anticipated. Despite some regional differences, such as either higher proportions of XBB* or of XBB.1.5, the replacement patterns of XBB* and XBB.1.5 are shared among countries and regions (Table 3). In the Western Pacific Region, there are several co-circulating variants, and XBB and its descendental variants are rising.

Importantly, based on available information from global, regional and country-based epidemiological reports, XBB* and XBB.1.5 pose a similar level of public health risk compared to the other Omicron descendental lineages. XBB.1.5 does show a growth advantage and a higher immune escape capacity, while evidence from multiple countries does not suggest that XBB and XBB.1.5 are associated with increased severity or mortality. In countries where the variant has driven an increase in cases, the waves are significantly smaller in scale compared to previous waves.

BA.1, BA.3 and BA.4 collectively accounted for less than 0.1% of sequences in week 8. BA.2 and BA.5 have both declined in prevalence; they accounted for 13.1% and 20.1% in week 8 (as compared to 15.2% and 46.8% in week 4). The pooled class of recombinants has increased in prevalence to 46.7% in week 8 (from 31.2% in week 4). Unassigned sequences (all presumed Omicron while awaiting descendental lineage assignment) accounted for 20.1% of the shared sequences in week 8.

WHO has updated its tracking system and working definitions for variants of SARS-CoV-2 to better correspond to the current global variant landscape. Each Omicron sublineage will be independently evaluated and classified based on its phenotype. Therefore, from 15 March 2023, the WHO variant tracking system will consider the classification of each Omicron sublineage independently, and not automatically classify it as a VOC solely because it is a sublineage of the established VOC Omicron.

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* Indicates inclusion of descendental lineage
† XBB.1.5 rapid risk assessment: https://www.who.int/docs/default-source/coronaviruse/22022024xbb.1.5ra.pdf
Figure 4. Panel A and B: The number and percentage of SARS-CoV-2 sequences, from 1 September to 26 February 2023

Figure 4 Panel A shows the number, and Panel B the percentage, of all circulating variants since July 2022. Omicron BA.1, BA.2, BA.3, BA.4 and BA.5 and their 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 the 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 September to 26 February 2023.
Table 2. Relative proportions of SARS-CoV-2 sequences from 30 January to 26 February 2023, by specimen collection date

<table>
<thead>
<tr>
<th>Lineage</th>
<th>Countries</th>
<th>Sequences</th>
<th>2023-04</th>
<th>2023-05</th>
<th>2023-06</th>
<th>2023-07</th>
<th>2023-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA.1*</td>
<td>189</td>
<td>2 232 340</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>BA.2*</td>
<td>182</td>
<td>2 069 495</td>
<td>0.86</td>
<td>1.03</td>
<td>1.01</td>
<td>1.34</td>
<td>1.82</td>
</tr>
<tr>
<td>BA.3*</td>
<td>28</td>
<td>782</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>BA.4*</td>
<td>145</td>
<td>178 112</td>
<td>0.16</td>
<td>0.13</td>
<td>0.06</td>
<td>0.07</td>
<td>0.02</td>
</tr>
<tr>
<td>BA.5*</td>
<td>167</td>
<td>1 620 923</td>
<td>11.45</td>
<td>9.02</td>
<td>7.12</td>
<td>5.15</td>
<td>4.09</td>
</tr>
<tr>
<td>BA.2.75*</td>
<td>116</td>
<td>93 885</td>
<td>8.13</td>
<td>7.83</td>
<td>6.66</td>
<td>3.82</td>
<td>2.63</td>
</tr>
<tr>
<td>BF.7*</td>
<td>106</td>
<td>92 821</td>
<td>3.88</td>
<td>3.30</td>
<td>2.79</td>
<td>1.97</td>
<td>0.90</td>
</tr>
<tr>
<td>BQ.1*</td>
<td>137</td>
<td>379 063</td>
<td>31.50</td>
<td>26.74</td>
<td>22.23</td>
<td>18.46</td>
<td>15.06</td>
</tr>
<tr>
<td>XBB*</td>
<td>115</td>
<td>60 627</td>
<td>5.09</td>
<td>5.76</td>
<td>6.16</td>
<td>7.97</td>
<td>9.69</td>
</tr>
<tr>
<td>XBB.1.5*</td>
<td>82</td>
<td>69 267</td>
<td>24.41</td>
<td>28.73</td>
<td>32.33</td>
<td>30.30</td>
<td>35.05</td>
</tr>
<tr>
<td>XBF*</td>
<td>44</td>
<td>6935</td>
<td>1.42</td>
<td>1.58</td>
<td>1.45</td>
<td>1.58</td>
<td>1.15</td>
</tr>
<tr>
<td>Unassigned</td>
<td>94</td>
<td>281 634</td>
<td>6.09</td>
<td>7.49</td>
<td>11.71</td>
<td>19.22</td>
<td>20.08</td>
</tr>
<tr>
<td>Other</td>
<td>207</td>
<td>6 678 493</td>
<td>0.75</td>
<td>1.05</td>
<td>1.12</td>
<td>1.46</td>
<td>0.80</td>
</tr>
</tbody>
</table>

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 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 the 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 March 2023. Proportions are shown as percentages.
Table 3. Relative proportions of SARS-CoV-2 XBB* and XBB.1.5* sequences from 30 January to 26 February 2023, by specimen collection date

<table>
<thead>
<tr>
<th>Region / Lineage</th>
<th>Countries</th>
<th>Sequences</th>
<th>2022-04</th>
<th>2023-05</th>
<th>2023-06</th>
<th>2023-07</th>
<th>2023-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR /XBB.1.5*</td>
<td>4</td>
<td>358</td>
<td>12.05</td>
<td>53.52</td>
<td>73.05</td>
<td>94.44</td>
<td>na</td>
</tr>
<tr>
<td>AFR /XBB*</td>
<td>14</td>
<td>504</td>
<td>8.43</td>
<td>8.59</td>
<td>9.93</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>EUR /XBB.1.5*</td>
<td>34</td>
<td>18 102</td>
<td>11.46</td>
<td>16.63</td>
<td>22.72</td>
<td>25.35</td>
<td>29.87</td>
</tr>
<tr>
<td>EUR /XBB*</td>
<td>36</td>
<td>17 589</td>
<td>4.63</td>
<td>6.28</td>
<td>8.42</td>
<td>9.83</td>
<td>11.02</td>
</tr>
<tr>
<td>EMR /XBB.1.5*</td>
<td>3</td>
<td>38</td>
<td>6.82</td>
<td>3.47</td>
<td>6.17</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>EMR /XBB*</td>
<td>12</td>
<td>863</td>
<td>78.03</td>
<td>80.56</td>
<td>81.48</td>
<td>100</td>
<td>na</td>
</tr>
<tr>
<td>SEAR /XBB.1.5*</td>
<td>3</td>
<td>78</td>
<td>6.06</td>
<td>5.20</td>
<td>4.88</td>
<td>12.50</td>
<td>22.86</td>
</tr>
<tr>
<td>SEAR /XBB*</td>
<td>7</td>
<td>6 147</td>
<td>53.10</td>
<td>50.29</td>
<td>59.76</td>
<td>62.50</td>
<td>68.57</td>
</tr>
<tr>
<td>AMR /XBB.1.5*</td>
<td>28</td>
<td>49 861</td>
<td>47.02</td>
<td>56.03</td>
<td>56.03</td>
<td>48.21</td>
<td>58.22</td>
</tr>
<tr>
<td>AMR /XBB*</td>
<td>31</td>
<td>25 000</td>
<td>5.63</td>
<td>3.96</td>
<td>2.80</td>
<td>2.65</td>
<td>3.37</td>
</tr>
<tr>
<td>WPR /XBB.1.5*</td>
<td>10</td>
<td>830</td>
<td>1.10</td>
<td>2.00</td>
<td>3.04</td>
<td>6.73</td>
<td>8.93</td>
</tr>
<tr>
<td>WPR /XBB*</td>
<td>15</td>
<td>10 524</td>
<td>2.88</td>
<td>5.35</td>
<td>5.44</td>
<td>10.48</td>
<td>14.77</td>
</tr>
</tbody>
</table>

Table 3 shows the number of countries reporting XBB.1.5 and XBB (* indicates inclusion of descendent lineages), the total number of sequences reported and the prevalence of the lineages for the last five weeks. Data source: sequences and metadata from GISAID, retrieved on 13 March 2023. Proportions are shown as percentages. “na” indicates that sequence information is not available for that week. AFR = African Region; EUR = European Region; EMR = Eastern Mediterranean Region; SEAR = South-East Asia Region; AMR = Region of the Americas; WPR = Western Pacific Region.

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
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 March 2023). All data are collected as part of an ongoing systematic review of COVID-19 VE studies (methods described here). The following plots are available:

- Primary series and booster dose VE for all vaccines with available data
- 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 VE from 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, studies show reduced VE of COVID-19 primary series vaccines against the Omicron variant for all outcomes (infection, symptomatic disease, and severe disease) compared to those that have been observed for the original SARS-CoV-2 strain and the four previous VOCs. Importantly though, VE estimates against the Omicron variant remain higher for severe disease than the other 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 for symptomatic disease and infection declining more in the first six months after the first booster vaccination 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 mRNA from both the 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. Since the bivalent mRNA vaccines have been evaluated over 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).

Neutralizing antibody studies can provide early insights into vaccine performance against new and emerging variants. For more information about the capacity of COVID-19 vaccines to neutralize various Omicron subvariants, 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 9 March 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 the 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 further reductions of neutralization capacity against the new subvariants BQ.1/BQ.1.1 and XBB/XBB.1/XBB.1.5. The neutralization capacity of the primary series against Omicron (without a booster) was too poor to enable accurate comparisons of fold-reductions for subvariants.
COVID-19 vaccination status of health and care workers

Health and care workers (HCWs) are at the forefront of the COVID-19 response, putting them at high risk of infection. As a result, HCWs constitute a priority group for COVID-19 vaccination.¹ Many countries have incorporated the vaccination of HCWs as a priority in their COVID-19 national deployment and vaccination plans.⁵ This prioritization serves a dual purpose: to minimize the risk of illness and death among HCWs and to safeguard the continued delivery of essential health services.** This prioritization has generally resulted in a high uptake of COVID-19 vaccines among HCWs. However, country and regional disparities persist – particularly in low- and middle-income countries, due to the global inequity in COVID-19 vaccine availability and distribution††, as well as differences in vaccination uptake.

Primary COVID-19 vaccine series: As of 28 February 2023, data from 143 Member States shows significant progress in the COVID-19 vaccination coverage among HCWs worldwide, with 93% reported as fully vaccinated and 5% partially vaccinated. The African Region is the region with the lowest vaccination coverage of all health and care workers, with a coverage of 72% by the end of 2022.‡‡ In addition, slight variations were noted among World Bank income groups, with low-income countries (LICs) reporting 85% vaccination coverage, lower-middle income countries (LMICs) and upper-middle income countries (UMICs) reporting 94%, and high-income countries (HICs) reporting 95% coverage (Table 4). Only 39% of countries (56 out of 143) reported full vaccination among HCWs (based on International Labour Organisation estimates of the number of HCWs).§§

As the COVID-19 pandemic continues to evolve, it is recommended to administer booster doses alongside the primary COVID-19 vaccine series to maintain protection against SARS-CoV-2, especially among high-risk populations such as HCWs.*** Ensuring that HCWs are adequately protected against SARS-CoV-2 has the added advantage that health systems can continue to meet their staffing needs and provide essential services without disruption to patients’ care.

Booster dose: Out of the 143 Member States that reported data, 91 indicated the administration of COVID-19 vaccination booster doses among HCWs. This suggests that some countries either lack data or have not included booster doses in their national vaccination protocols. Among the 91 countries that reported booster doses, the coverage was 69%, compared to 91% for the primary COVID-19 vaccine series. The African Region had the lowest coverage rate at 16%. In contrast to the primary vaccination series, the proportion of HCWs vaccinated with a booster dose varied considerably by income group, with the lowest proportion (57%) observed among UMICs, followed by 62% among HICs, 65% among LICs and 79% among LMICs.

In conclusion, while globally there has been significant progress in the administration of the primary COVID-19 vaccine series among HCWs, the provision of booster doses has fallen behind. To ensure the continued protection of


HCWs, it is essential to prioritize the administration of booster doses among HCWs across all regions and income groups.

Table 4. COVID-19 primary series and booster dose vaccination among HCWs by WHO region and Income group

<table>
<thead>
<tr>
<th>WHO Regions (N countries)</th>
<th>Health workforce sizea (million)</th>
<th>Number of HCW, in million, (%) fully vaccinated</th>
<th>WHO Regions (N countries)</th>
<th>Health workforce sizea (million)</th>
<th>Number of HCW, in million, (%) fully vaccinated</th>
<th>Number of HCW, in million, (%) booster vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Pacific (27)</td>
<td>35.2</td>
<td>33.4 (98%)</td>
<td>Europe (28)</td>
<td>9.2</td>
<td>7.9 (85%)</td>
<td>4.2 (46%)</td>
</tr>
<tr>
<td>Europe (39)</td>
<td>15.8</td>
<td>13.4 (85%)</td>
<td>South-East Asia (6)</td>
<td>8.5</td>
<td>8.5 (100%)</td>
<td>8.5 (100%)</td>
</tr>
<tr>
<td>South-East Asia (8)</td>
<td>8.6</td>
<td>8.6 (100%)</td>
<td>Americas (15)</td>
<td>7.7</td>
<td>7.6 (99%)</td>
<td>6.8 (89%)</td>
</tr>
<tr>
<td>Americas (19)</td>
<td>8.2</td>
<td>8.2 (99%)</td>
<td>Eastern Mediterranean (10)</td>
<td>4.6</td>
<td>3.7 (80%)</td>
<td>2.4 (52%)</td>
</tr>
<tr>
<td>Eastern Mediterranean (12)</td>
<td>4.8</td>
<td>3.8 (78%)</td>
<td>Africa (21)</td>
<td>2.5</td>
<td>1.7 (68%)</td>
<td>0.4 (16%)</td>
</tr>
<tr>
<td>Africa (38)</td>
<td>4.3</td>
<td>3.1 (72%)</td>
<td>West Pacific (11)</td>
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<td>0.7 (100%)</td>
<td>0.6 (92%)</td>
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<tr>
<td>Total (143)</td>
<td>77.0</td>
<td>71.4 (93%)</td>
<td>Total (91)</td>
<td>33.3</td>
<td>30.1 (91%)</td>
<td>23.0 (69%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Income groupb (N countries)</th>
<th>Health workforce sizea (million)</th>
<th>Number of HCW, in million, (%) fully vaccinated</th>
<th>Income groupb (N countries)</th>
<th>Health workforce sizea (million)</th>
<th>Number of HCW, in million, (%) fully vaccinated</th>
<th>Number of HCW, in million, (%) booster vaccinated</th>
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<td>LIC (54)</td>
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<td>12.3 (85%)</td>
<td>LIC (37)</td>
<td>12.0</td>
<td>10.3 (86%)</td>
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<td>LMIC (40)</td>
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<td>29.4 (94%)</td>
<td>LMIC (27)</td>
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<td>11.6 (93%)</td>
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<td>UMIC (25)</td>
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<td>5.1 (94%)</td>
<td>UMIC (13)</td>
<td>4.1</td>
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<td>2.4 (57%)</td>
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<td>HIC (24)</td>
<td>25.8</td>
<td>24.6 (95%)</td>
<td>HIC (14)</td>
<td>4.7</td>
<td>4.4 (93%)</td>
<td>2.9 (62%)</td>
</tr>
<tr>
<td>Total (143)</td>
<td>77.0</td>
<td>71.4 (93%)</td>
<td>Total (91)</td>
<td>33.3</td>
<td>30.1 (91%)</td>
<td>23.0 (69%)</td>
</tr>
</tbody>
</table>

Source: Data reported to WHO as of February 2023. The primary source of COVID-19 vaccination coverage data was the WHO/UNICEF electronic Joint Reporting Form (eJRF) on immunization, used by countries to report vaccination data on a monthly basis. The eJRF data were supplemented by region-specific data collection such as The European Surveillance System (TESSy), and the data collection frameworks used in African, South-East Asian, and Western Pacific regions. For further information on method available in Nabaggala et al International Journal for Equity in Health 2022:

a Estimated size of health and care sector was extracted from ILOStat 2021.
b World Bank income groups: LIC: Low-income countries, LMIC: Lower-middle income countries, UMIC: Upper-middle income countries, HIC: High income countries.
WHO regional overviews
Data for 13 February to 12 March 2023

African Region

The African Region reported over 12 000 new cases, a 52% 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 Chad (27 vs one new cases; +2600%), Senegal (19 vs five new cases; +280%), and Mali (231 vs 61 new cases; +279%). The highest numbers of new cases were reported from South Africa (6828 new cases; 11.5 new cases per 100 000; -4%), Zambia (1445 new cases; 7.9 new cases per 100 000; -71%), and Zimbabwe (669 new cases; 4.5 new cases per 100 000; -79%).

The number of new 28-day deaths in the region decreased by 75% as compared to the previous 28-day period, with 26 new deaths reported. The highest numbers of new deaths were reported from Zimbabwe (nine new deaths; <1 new death per 100 000; -61%), Zambia (eight new deaths; <1 new death per 100 000; -47%), and Mozambique (three new deaths; <1 new death per 100 000; -57%).

Updates from the African Region

Region of the Americas

The Region of the Americas reported over 1.3 million new cases, a 28% 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 the United States of America (919 961 new cases; 277.9 new cases per 100 000; -21%), Brazil (155 181 new cases; 73.0 new cases per 100 000; -53%), and Mexico (72 509 new cases; 56.2 new cases per 100 000; -16%).

The number of new 28-day deaths in the region decreased by 37% as compared to the previous 28-day period, with 13 011 new deaths reported. The highest numbers of new deaths were reported from the United States of America (9303 new deaths; 2.8 new deaths per 100 000; -35%), Brazil (1648 new deaths; <1 new death per 100 000; -32%), and Canada (618 new deaths; 1.6 new deaths per 100 000; -38%).

Updates from the Region of the Americas
Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 20 000 new cases, an 18% increase as compared to the previous 28-day period. Seven (32%) 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 (585 vs 193 new cases; +203%), the Islamic Republic of Iran (7392 vs 2872 new cases; +157%), and Pakistan (895 vs 479 new cases; +87%). The highest numbers of new cases were reported from the Islamic Republic of Iran (7392 new cases; 8.8 new cases per 100 000; +157%), the United Arab Emirates (3256 new cases; 32.9 new cases per 100 000; +41%), and Lebanon (3000 new cases; 44 new cases per 100 000; -37%).

The number of new 28-day deaths in the region increased by 35% as compared to the previous 28-day period, with 286 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (162 new deaths; <1 new death per 100 000; +195%), Lebanon (41 new deaths; <1 new death per 100 000; -2%), and Saudi Arabia (30 new deaths; <1 new death per 100 000; -39%).

European Region

The European Region reported over 1.5 million new cases, a 20% increase 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 Kyrgyzstan (109 vs 13 new cases; +738%), Poland (63 014 vs 16 380 new cases; +285%), and Armenia (1226 vs 372 new cases; +230%). The highest numbers of new cases were reported from the Russian Federation (350 376 new cases; 240.1 new cases per 100 000; +62%), Germany (338 306 new cases; 406.8 new cases per 100 000; +10%), and Austria (144 969 new cases; 1628.7 new cases per 100 000; +69%).

The number of new 28-day deaths in the region decreased by 26% as compared to the previous 28-day period, with 9274 new deaths reported. The highest numbers of new deaths were reported from the United Kingdom (2217 new deaths; 3.3 new deaths per 100 000; -25%), the Russian Federation (1035 new deaths; <1 new death per 100 000; -10%), and Germany (982 new deaths; 1.2 new deaths per 100 000; -15%).

Updates from the Eastern Mediterranean Region

Updates from the European Region
South-East Asia Region

The South-East Asia Region reported over 13 000 new cases, a 14% increase as compared to the previous 28-day period. Two (18%) of the 11 countries for which data are available reported increases in new cases of 20% or greater: India (6374 vs 3078 new cases; +107%), and the Maldives (21 vs 15 new cases; +40%). The highest numbers of new cases were reported from India (6374 new cases; <1 new case per 100 000; +107%), Indonesia (6268 new cases; 2.3 new cases per 100 000; -7%), and Thailand (676 new cases; 1.0 new case per 100 000; -61%).

The number of new 28-day deaths in the region decreased by 45% as compared to the previous 28-day period, with 148 new deaths reported. The highest numbers of new deaths were reported from Indonesia (84 new deaths; <1 new death per 100 000; -39%), India (31 new deaths; <1 new death per 100 000; +29%), and Thailand (30 new deaths; <1 new death per 100 000; -71%).

Western Pacific Region

The Western Pacific Region reported over 1.1 million new cases, a 68% decrease as compared to the previous 28-day period. Three (9%) 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 Nauru (469 vs 194 new cases; +142%), Singapore (13 234 vs 10 216 new cases; +30%), and the Marshall Islands (59 vs 46 new cases; +28%). The highest numbers of new cases were reported from Japan (380 898 new cases; 301.2 new cases per 100 000; -77%), China (370 020 new cases; 25.1 new cases per 100 000; -71%), and the Republic of Korea (284 532 new cases; 555 new cases per 100 000; -48%).

The number of new 28-day deaths in the region decreased by 83% as compared to the previous 28-day period, with 5210 new deaths reported. The highest numbers of new deaths were reported from Japan (2598 new deaths; 2.1 new deaths per 100 000; -69%), China (1586 new deaths; <1 new death per 100 000; -92%), and the Republic of Korea (367 new deaths; <1 new death per 100 000; -53%).

Updates from the South-East Asia Region

Updates from the Western Pacific Region
Hospitalizations and ICU admissions

At the global level, during the past 28 days (6 February to 5 March 2023), a total of 54,420 new hospitalizations and 2,403 new intensive care unit (ICU) admissions were reported. This represents a reduction in new hospitalizations and ICU admissions of 53% and 32%, respectively, compared to the previous 28 days (9 January to 5 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, 45 (19%) 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 (four countries; 18%), the South-East Asia Region (two countries; 18%), the Region of the Americas (seven countries; 13%), the Western Pacific Region (three countries; 9%), and the African Region (four countries; 8%). The proportion of countries that consistently reported new hospital admissions for the period was 11% (26 countries).

Among 26 countries consistently reporting new hospitalizations, eight (31%) registered an increase of 20% or greater during the 28 days compared to the previous 28 days period: Czechia (1,656 vs 799; +107%), Belgium (2,563 vs 1,517; +69%), Slovakia (1,016 vs 610; +67%), the Netherlands (1,941 vs 1,255; +55%), Tunisia (71 vs 47; +51%), Luxembourg (70 vs 47; +49%), Malta (66 vs 48; +38%), and Ukraine (12,618 vs 9,627; +31%). The highest numbers of new hospitalizations were reported from Ukraine (12,618 vs 9,627; +31%), France (7,107 vs 9,516; -25%), Italy (5,236 vs 8,025; -35%), Greece (3,793 vs 5,359; -29%), and Spain (3,254 vs 5,243; -38%).

Across the six WHO regions, in the past 28 days, a total of 29 (12%) 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 (17 countries; 28%) followed by the Eastern Mediterranean Region (three countries; 14%), the Western Pacific Region (three countries; 9%), the South-East Asia Region (one country; 9%), the Region of the Americas (three countries; 5%), and the African Region (two countries; 4%). The proportion of countries that consistently reported new ICU admissions for the period was 7% (16 countries).

Among 16 countries that consistently reported ICU admission data, two (13%) showed an increase of 20% or greater in new ICU admissions during the 28 days period compared to the previous 28 days: the Netherlands (138 vs 69; +100%) and Czechia (122 vs 77; +58%). The highest numbers of new ICU admissions were reported from France (725 vs 1,097; -34%), Ukraine (435 vs 387; +12%), Italy (241 vs 348; -31%), and the Netherlands (138 vs 69; +100%).

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# "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, and ICU admissions reported weekly to WHO, as of 05 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 except, 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, 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.5
References


