# COVID-19 Weekly Epidemiological Update

**Edition 43, published 8 June 2021**

In this edition:

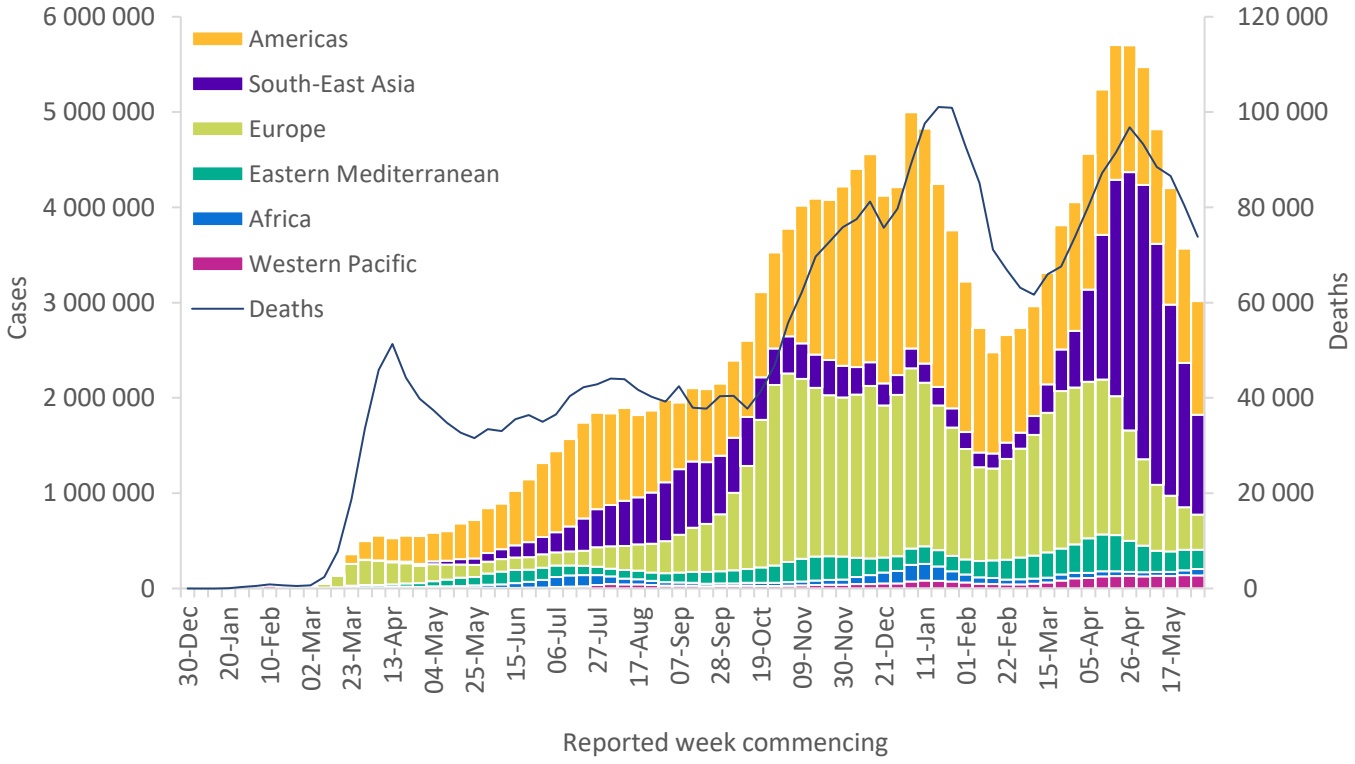


## Global overview

**Data as of 6 June 2021**

Global case and death incidences continued to decrease with over 3 million new weekly cases and over 73 000 new deaths, a 15% and an 8% decrease respectively, compared to the previous week (Figure 1). The European and South-East Asia Regions reported marked declines in the number of new cases in the past week, whereas the African Region reported an increase compared to the previous week (Table 1). The Region of the Americas as well as the Eastern Mediterranean and the Western Pacific Regions reported similar numbers compared to the previous week. The number of new deaths reported in the past week decreased in the European and South-East Asia Regions and increased in the Western Pacific Region. Death incidences remained stable in the Region of the Americas as well as the Eastern Mediterranean and African Regions. Despite the downward trend in global case and death incidences for a sixth and fifth consecutive week respectively, many countries across all six regions have reported rises in the number of cases and deaths.

**Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 6 June 2021****




**See *Annex 3: Data, table and figure notes*

The highest numbers of new cases were reported from India (914 539 new cases; 33% decrease), Brazil (449 478 new cases; 7% increase), Argentina (212 975 new cases; 3% decrease), Colombia (175 479 new cases; 17% increase), and the United States of America (99 103 new cases; 35% decrease).

**Table 1. Newly reported and cumulative COVID-19 cases and deaths, by WHO Region, as of 6 June 2021****

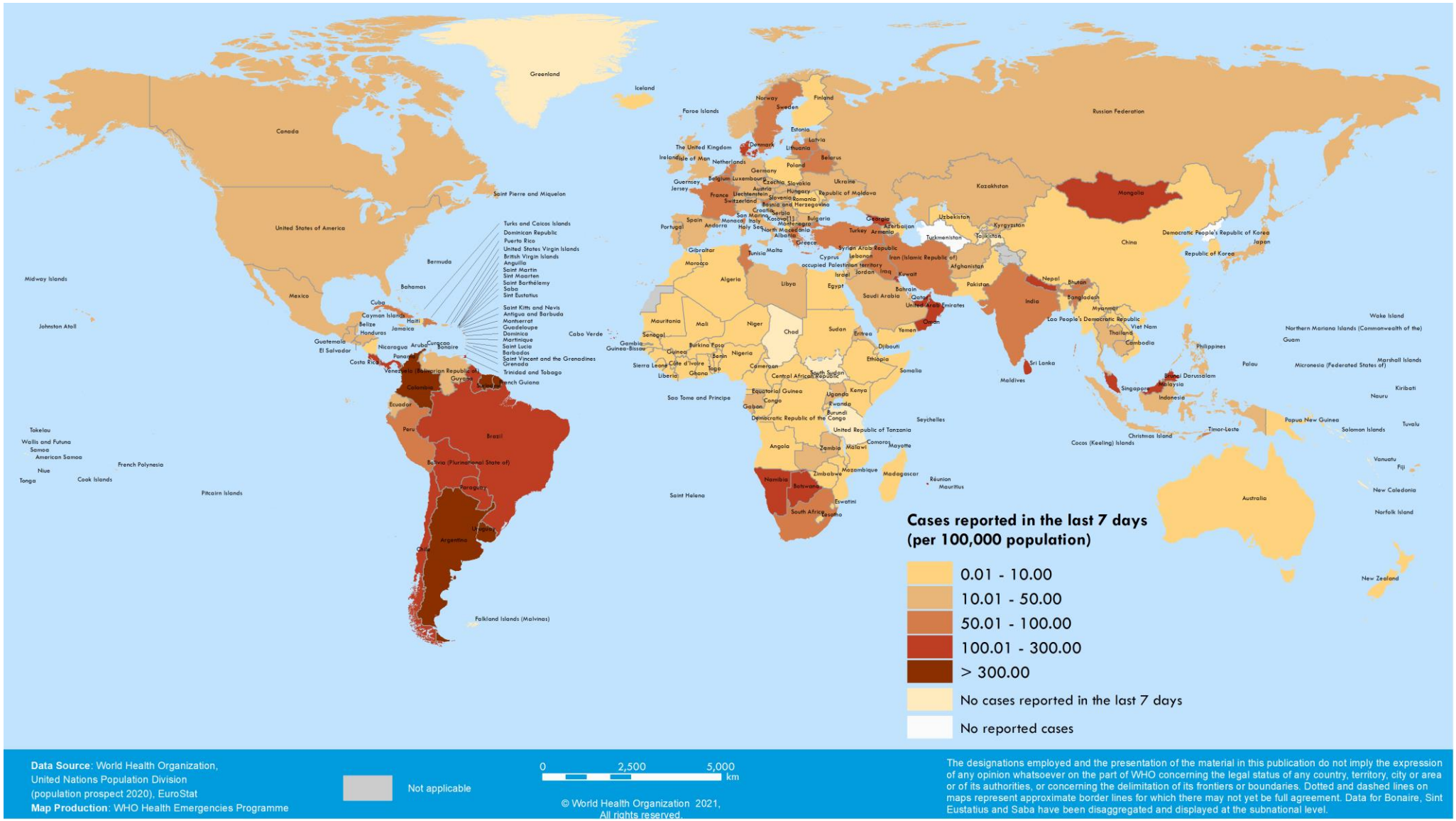
| WHO Region | New cases in last 7 days (%) | Change in new cases in last 7 days * | Cumulative cases (%) | New deaths in last 7 days (%) | Change in new deaths in last 7 days * | Cumulative deaths (%) |
|---|---|---|---|---|---|---|
| Americas | 1 191 047 (39%) | -1% | 68 370 018 (40%) | 34 392 (47%) | 4% | 1 794 865 (48%) |
| Europe | 368 874 (12%) | -17% | 54 629 665 (32%) | 8 890 (12%) | -21% | 1 157 890 (31%) |
| South-East Asia | 1 049 694 (35%) | -31% | 32 654 915 (19%) | 23 369 (32%) | -21% | 425 123 (11%) |
| Eastern Mediterranean | 202 208 (7%) | -5% | 10 278 904 (6%) | 3 503 (5%) | -1% | 205 145 (6%) |
| Africa | 65 943 (2%) | 25% | 3 563 825 (2%) | 1 167 (2%) | 2% | 88 274 (2%) |
| Western Pacific | 138 239 (5%) | -1% | 3 139 006 (2%) | 2 486 (3%) | 19% | 47 634 (1%) |
| **Global** | **3 016 005 (100%)** | **-15%** | **172 637 097 (100%)** | **73 807 (100%)** | **-8%** | **3 718 944 (100%)** |

**Percent change in the number of newly confirmed cases/deaths in past seven days, compared to seven days prior*
**See *Annex 3: Data, table and figure notes*

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

- WHO COVID-19 Dashboard
- WHO COVID-19 Weekly Operational Update and previous editions of the Weekly Epidemiological Update

## Figure 2. COVID-19 cases per 100 000 population reported by countries, territories and areas, 31 May – 6 June 2021**




**See *Annex 3: Data, table and figure notes*

## Special Focus: Update on SARS-CoV-2 Variants of Interest (VOIs) and Variants of Concern (VOCs)

WHO, in collaboration with national authorities, institutions and researchers, routinely assesses if variants of SARS-CoV-2 result in changes in transmissibility, clinical presentation and severity, or if they result in changes in the implementation of public health and social measures (PHSM) by national health authorities. Systems have been established to detect "signals" of potential Variants of Concern (VOCs) or Variants of Interest (VOIs) and assess these based on the risk posed to global public health. Table 2 lists currently designated global VOIs and VOCs. National authorities may choose to designate other variants of local interest/concern. Here we provide an update on emerging evidence surrounding phenotypic characteristics and the geographical distribution of designated VOCs.

On 31 May 2021, WHO announced new easy-to-say/easy-to-remember VOI and VOC labels to facilitate public communication about SARS-CoV-2 variants and the 1 June 2021 edition of the WEU outlined the changes in labelling of the VOCs and VOIs, as well as updates to the classifications of variants B.1.617.1, B.1.617.3 and B.1.616.

### Table 2: SARS-CoV-2 Variants of Concern (VOCs) and Variants of Interest (VOIs), as of 8 June 2021

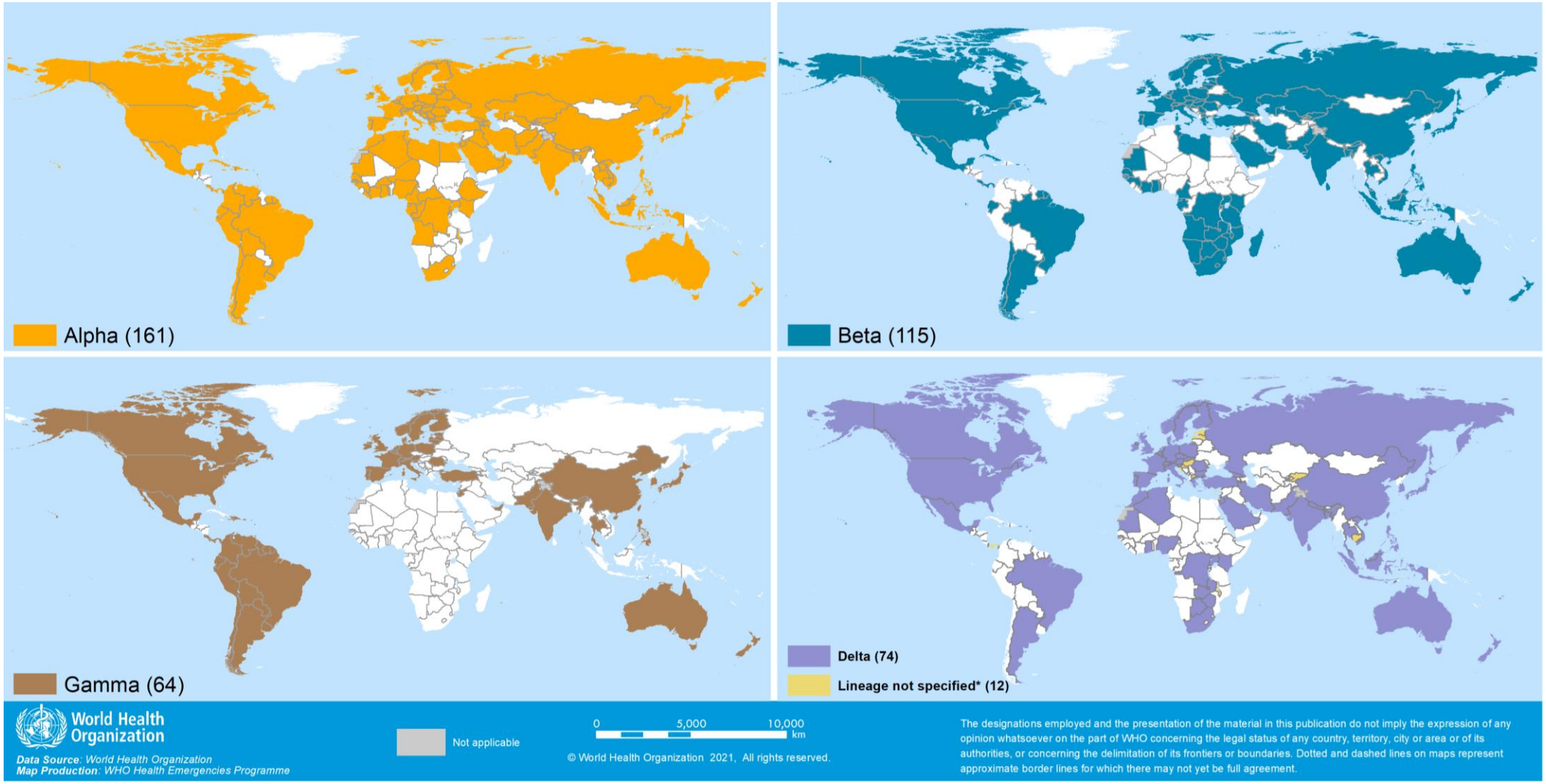
| WHO label | Pango lineage | GISAID clade | Nextstrain clade | Earliest documented samples | Date of designation |
|---|---|---|---|---|---|
| **Variants of Concern (VOCs)** | | | | | |
| Alpha | B.1.1.7 | GRY (formerly GR/501Y.V1) | 20I/501Y.V1 | United Kingdom, Sep-2020 | 18-Dec-2020 |
| Beta | B.1.351 | GH/501Y.V2 | 20H/501Y.V2 | South Africa, May-2020 | 18-Dec-2020 |
| Gamma | P.1 | GR/501Y.V3 | 20J/501Y.V3 | Brazil, Nov-2020 | 11-Jan-2021 |
| Delta | B.1.617.2 | G/452R.V3 | 21A/S:478K | India, Oct-2020 | VOI: 4-Apr-2021<br>VOC: 11-May-2021 |
| **Variants of Interest (VOIs)** | | | | | |
| Epsilon | B.1.427/ B.1.429 | GH/452R.V1 | 20C/S.452R | United States of America, Mar-2020 | 5-Mar-2021 |
| Zeta | P.2 | GR | 20B/S.484K | Brazil, Apr-2020 | 17-Mar-2021 |
| Eta | B.1.525 | G/484K.V3 | 20A/S484K | Multiple countries, Dec-2020 | 17-Mar-2021 |
| Theta | P.3 | GR | 20B/S:265C | Philippines, Jan-2021 | 24-Mar-2021 |
| Iota | B.1.526 | GH | 20C/S:484K | United States of America, Nov-2020 | 24-Mar-2021 |
| Kappa | B.1.617.1 | G/452R.V3 | 21A/S:154K | India, Oct-2020 | 4-Apr-2021 |

## Table 3: Summary of phenotypic impacts* of Variants of Concern (VOCs)

| WHO label | Alpha | Beta | Gamma | Delta |
|---|---|---|---|---|
| **Transmissibility** | Increased transmissibility and secondary attack rate[1] | Increased transmissibility[2] | Increased transmissibility[1] | Increased transmissibility and secondary attack rate[3,4],[5] |
| **Disease severity** | Not confirmed, possible increased risk of hospitalization[6], severity and mortality[7] | Not confirmed, possible increased risk of in-hospital mortality[8,9] | Not confirmed, possible increased risk of hospitalization[10] | Not confirmed, possible increased risk of hospitalization[5] |
| **Risk of reinfection** | Neutralizing activity retained,[11] risk of reinfection remain similar[12,13] | Reduction in neutralizing activity reported; T cell response elicited by D614G virus remains effective[14–17] | Moderate reduction in neutralizing activity reported[18,19] | Reduction in neutralizing activity reported[20] |
| **Impacts on diagnostics** | Limited impact – S gene target failure (SGTF); no impact on overall result from multiple target RT-PCR, No impact on Ag RDTs observed[21] | No impact on RT-PCR or Ag RDTs observed[16] | None reported to date | None reported to date |
| **Impacts on vaccine efficacy/effectiveness** | Protection retained against disease<br>• Severe disease: No/minimal loss: Pfizer BioNTech-Comirnaty[22–27]<br>• Symptomatic disease: No/minimal loss: AstraZeneca-Vaxzevria, Novavax-Covavax, PfizerBioNTech-Comirnaty[23,24,27–30]<br>• Infection: No/minimal loss: Pfizer BioNTech-Comirnaty[31]<br>• Asymptomatic infection: No/minimal loss: Pfizer BioNTech-Comirnaty.[23,32] Inconclusive/moderate-substantial loss, limited sample size: AstraZeneca-Vaxzevria[29] | Reduced protection against disease; limited evidence<br>• Severe disease: No/minimal loss: Janssen Ad26.COV 2.5, PfizerBioNTech-Comirnaty[24,33]<br>• Mild-moderate disease: No/minimal loss: Janssen-Ad26. COV 2.5.[33] Moderate loss: Novavax-Covavax.[34] Inconclusive/ substantial loss, limited sample size: AstraZeneca-Vaxzevria[35]<br>• Infection: Moderate loss: PfizerBioNTech-Comirnaty[24]<br>• Asymptomatic infection: No evidence | Protection likely against disease; very limited evidence, on only one vaccine<br>• Symptomatic Disease: No/minimal loss: Sinovac-CoronaVac[36,37]<br>• Infection: No/minimal loss: Sinovac-CoronaVac[37] | Protection likely against disease; very limited evidence on only two vaccines<br>• Symptomatic Disease: No/minimal loss: Pfizer BioNTech-Comirnaty, AstraZeneca- Vaxzevria.[38] Minimal/modest loss: *single dose* of PfizerBioNTech-Comirnaty, AstraZeneca-Vaxzevria[38] |
| **Impacts on neutralization by vaccine** | • No/minimal loss: Bharat-Covaxin, Gamaleya-Sputnik V, Moderna-mRNA-1273, Novavax-Covavax, Pfizer BioNTech-Comirnaty, BeijingCNBG-BBIBP-CorV, Sinovac-CoronaVac[17,38–63]<br>• Minimal/moderate loss: AstraZeneca-Vaxzevria[29,53] | • Minimal/modest loss: Beijing CNBG-BBIBP-CorV, Sinovac-CoronaVac, Anhui ZL - Recombinant[64–66]<br>• Minimal to substantial loss: Moderna-mRNA-1273, Pfizer BioNTech-Comirnaty[17,40,44,46–48,50,52–54,60,62,63,67–73]<br>• Moderate to substantial loss: AstraZeneca-Vaxzevria, Gamaleya- Sputnik V, Janssen-Ad26.COV 2.5, Novavax-Covavax[46,55,70,70,74] | • No/minimal loss:AstraZeneca-Vaxzevria,Sinovac-CoronaVac[53,75]<br>• Minimal/moderate loss: Moderna-mRNA-1273, Pfizer BioNTech-Comirnaty[17,40,41,50,52,53,59,62,76,77] | • Modest/moderate loss: Pfizer BioNTech Comirnaty, Bharat-Covaxin[60,78,79] (Note: sublineage of B.1.617 not specified in Bharat-Covaxin study)<br>• Substantial loss: *single dose* of AstraZeneca-Vaxzevria[78] |

**Generalized findings as compared to previously/co-circulating variants. Based on emerging evidence, including non-peer-reviewed preprint articles and reports, all subject to ongoing investigation and revision.*

**Figure 3. Countries, territories and areas reporting variants Alpha (B.1.1.7), Beta (B.1.351), Gamma (P.1) and Delta (B.1.617.2), as of 8 June 2021****




**Includes countries/territories/areas reporting the detection of B.1.617 without further specification of lineage at this time. These will be reallocated as further details become available.*

***Countries/territories/areas highlighted include both official and unofficial reports of VOC detections, and do not presently differentiate between detections among travellers (e.g., at Points of Entry) or local community cases. Please see Annex 2 for further details.*

**Phenotypic characteristics**

Available evidence on phenotypic impacts of VOCs and vaccine performance against VOCs are summarised in Tables 3, as well as in previous editions of the WEU.

Recent studies of the Delta variant in the United Kingdom of Great Britain and Northern Ireland suggest a possible increased risk of severe disease, and support previous observations of increased transmissibility.[5] An analysis comparing Delta and Alpha variant confirmed cases in the United Kingdom from 29 March to 20 May 2021 showed the Delta variant was associated with a possible increased risk of hospitalization (hazard ratio 2.61, 95%CI 1.56-4.36), and an increased risk of emergency care attendance or hospitalization (hazard ratio 1.67, 1.25-2.23) within 14 days of specimen collection, as compared to the Alpha variant. A second analysis based on cases reported in the United Kingdom from 29 March to 11 May 2021 (variant data as of 25 May 2021) found that the secondary attack rate was higher among contacts of Delta cases compared to contacts of Alpha cases (2.6% vs. 1.6% among contacts of cases that have travelled; 8.2% vs. 12.4% among contacts of cases that have not travelled). Further analyses are required to better understand and confirm these findings.

**VOC impacts on vaccines**

Since the update on VOC impacts on vaccines on 25 May, two studies have provided further evidence of the effectiveness of Pfizer BioNTech-Comirnaty vaccine against VOCs. A study from Canada found two doses of the vaccine to be 90% (95% CI: 85-94%) and 88% (95% CI: 61-96%) effective against symptomatic disease ≥7 days post second dose caused by variants Alpha and Beta/Gamma, respectively, among adults 16 years and older. Vaccine effectiveness (VE) against hospitalization/death ≥0 days post second dose was 94% (95%CI: 55-99%) for Alpha and 100% (95% CI not available) for Beta/Gamma. VE of a single dose of Pfizer BioNTech-Comirnaty against symptomatic disease (≥14 days after immunization) was 61% (95% CI: 59-66%), 43% (95% CI: 22-59%), and 61% (95% CI: 53-67%) for Alpha, Beta, and for Gamma, respectively, underscoring the importance of two doses of vaccine in preventing symptomatic disease. Samples bearing the 501Y mutation without the E484K mutation were assumed to be Alpha while samples bearing the 501Y mutation with the E484K mutation were assumed to be either Beta or Gamma.[27] Samples bearing the 501Y mutation without the E484K mutation were assumed to be Alpha while samples bearing the 501Y mutation with the E484K mutation were assumed to be either Beta or Gamma.[27] Samples bearing the 501Y mutation without the E484K mutation were assumed to be Alpha while samples bearing the 501Y mutation with the E484K mutation were assumed to be either Beta or Gamma.[27]

A previously highlighted study from Qatar found two doses of Pfizer BioNTech-Comirnaty to be highly effective against Alpha infection (VE 89.5%) and severe disease (VE 100%); the vaccine was also highly effective against severe disease caused by Beta with a VE of 100% but somewhat reduced against infection (VE 75%) due to this variant.[24] A follow-up analysis (not yet peer-reviewed) to this study evaluated the effectiveness of one dose of Pfizer BioNTech-Comirnaty against infection and severe disease caused by Alpha and Beta variants. At 1-7 days and 8-14 days post vaccination, low to no effectiveness against infection and severe disease was observed for disease events caused by these variants. At 15-21 days post vaccination, VE estimates against infection and severe disease due to Alpha were 65.5% (95% CI: 58.2-71.5%) and 72.0% (95% CI: 32.0-90.0%), respectively. VE estimates against infection and severe disease due to Beta were 46.5% (95% CI: 38.7-53.3%) and 56.5% (95% CI: 0.0-82.8%), respectively. These findings underscore the importance of two doses in preventing infection and severe disease caused by Alpha and Beta. Of note, infections that were not due to Alpha were assumed to be caused by Beta variant as national surveillance did not detect any other strains circulating during much of the study period.[80]

Two recent studies provide evidence of reduced neutralization capacity of COVID-19 vaccines against variant Delta. One study found a 5.8-fold reduction in neutralization against Delta compared to a reference strain in 159 samples from individuals who received two doses of Pfizer BioNTech-Comirnaty [median time after second dose: 28 days (IQR: 21-37)]; 2.6- and 4.9-fold reductions were observed against Alpha and Beta variants, respectively, relative to the reference strain.[60] Findings from a second study (not yet peer-reviewed)

show a 3-fold reduction in neutralization capacity against Delta relative to Alpha among sera collected from 16 individuals five weeks after receipt of second dose of Pfizer BioNTech-Comirnaty; a 16-fold reduction was observed against Beta relative to Alpha. Most samples (81-100%) were able to neutralize Alpha, Beta and Delta five weeks after receipt of the second dose; findings remained consistent at 13 weeks after second dose with the exception of the Beta strain whereby only 46% of samples were able to neutralize the variant. Authors also found that a single dose of AstraZeneca-Vaxzevria, while able to neutralize Alpha, was less effective at neutralizing Beta or Delta.[78]

Two recent studies (not yet peer reviewed) provide evidence of the impact of heterologous vaccination on neutralization capacity against variants. In both studies, individuals received AstraZeneca-Vaxzevria as a first dose followed by a Pfizer BioNTech-Comirnaty booster. The first of these studies compared 26 individuals receiving heterologous vaccination to 14 individuals receiving two doses of Pfizer BioNTech-Comirnaty. Overall, authors report a strong neutralization response in heterologous vaccinated individuals against Alpha, Beta and B.1.617 (lineage not specified) exceeding neutralization titers of the homologous vaccination group, though the difference for B.1.617 was not statistically significant. Results also show that, among the heterologous group, a two-fold reduction in neutralization capacity was observed against Beta relative to Alpha, though neutralization was still achieved; no such reduction was observed for B.1.617. In addition, CD4+ or CD8+ T cells were detected two weeks after heterologous vaccination, with results similar to those from studies evaluating a single dose of AstraZeneca-Vaxzevria and homologous Pfizer BioNTech-Comirnaty vaccination.[81] The second study compared the AstraZeneca-Vaxzevria/Pfizer BioNTech-Comirnaty heterologous group to a homologous group receiving two doses of AstraZeneca-Vaxzevria and found higher neutralization against Alpha, Beta and Gamma in the heterologous group. Increased CD4+ and CD8+ T cell reactivity was also observed in the heterologous group.[82] Together, these studies provide evidence that a heterologous vaccination regimen is at least as protective as homologous vaccinations.

**Geographic distribution**

As surveillance activities to detect SARS-CoV-2 variants are strengthened at local and national levels, including by strategic genomic sequencing, the number of countries/areas/territories (hereafter countries) reporting VOCs has continued to increase (Figure 3, Annex 2). This distribution should be interpreted with due consideration of surveillance limitations, including differences in sequencing capacities and sampling strategies between countries

Public health authorities are encouraged to continue to strengthen surveillance and sequencing capacities and apply a systematic approach to provide a representative indication of the extent of transmission of SARS-CoV-2 variants based on the local context, and in the investigation of unusual epidemiological events. Environmental surveillance has the potential to support other early warning surveillance systems for monitoring the spread of SARS-CoV-2 infections, including variants. A recent study in the United Kingdom demonstrated the ability to detect co-circulating SARS-CoV-2 variants and identify changes in viral RNA sequences in wastewater.[83] In Spain, weekly wastewater estimates of the proportion of variant Alpha in 32 different locations reflected the trends in reported sequenced clinical cases in most regions. Moreover, wastewater surveillance allowed the identification of variant Alpha circulation in new areas within Spain before detection by the public health authorities using clinical specimens.[84]

**WHO recommendations**

Virus evolution is expected, and the more SARS-CoV-2 circulates, the more opportunities it has to evolve. Reducing transmission through established and proven disease control methods such as those outlined in the COVID-19 Strategic Preparedness and Response Plan, as well as avoiding introductions into animal populations, are crucial aspects of the global strategy to reduce the occurrence of mutations that have negative public health implications. PHSM remain critical to curb the spread of SARS-CoV-2 and its variants. Evidence from multiple countries with extensive transmission of VOCs has indicated that PHSM, including infection prevention and control (IPC) measures in health facilities, have been effective in reducing COVID-19 case incidence, which has led to a reduction in hospitalizations and deaths among COVID-19 patients. National

and local authorities are encouraged to continue strengthening existing PHSM, IPC and disease control activities. Authorities are also encouraged to strengthen surveillance and sequencing capacities and apply a systematic approach to provide a representative indication of the extent of transmission of SARS-CoV-2 variants based on the local context, and to detect unusual events.

## Additional resources

- Tracking SARS-CoV-2 variants
- COVID-19 new variants: Knowledge gaps and research
- Genomic sequencing of SARS-CoV-2: a guide to implementation for maximum impact on public health
- Considerations for implementing and adjusting PHSM in the context of COVID-19
- COVID-19 Situation Reports from WHO Regional Offices and partners: AFRO, AMRO/PAHO, EMRO, EURO/ECDC, SEARO, WPRO
- ACT accelerator diagnostic pillar, FIND test directory

## References


1. Curran J, Dol J, Boulos L, et al. Transmission characteristics of SARS-CoV-2 variants of concern Rapid Scoping Review. medRxiv. Published online January 1, 2021:2021.04.23.21255515. doi:10.1101/2021.04.23.21255515
2. Tegally H, Wilkinson E, Giovanetti M, et al. Emergence of a SARS-CoV-2 variant of concern with mutations in spike glycoprotein. Nature. Published online 2021. https://doi.org/10.1038/s41586-021-03402-9
3. Cherian S, Potdar V, Jadhav S, et al. Convergent evolution of SARS-CoV-2 spike mutations, L452R, E484Q and P681R, in the second wave of COVID-19 in Maharashtra, India. bioRxiv. Published online January 1, 2021:2021.04.22.440932. doi:10.1101/2021.04.22.440932
4. Public Health England. SARS-CoV-2 Variants of Concern and Variants under Investigation in England. Technical Briefing 10. Public Health England; 2021. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/984274/Variants_of_Concern_VOC_Technical_Briefing_10_England.pdf
5. Public Health England. SARS-CoV-2 Variants of Concern and Variants under Investigation in England Technical Briefing 14.; 2021. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/991343/Variants_of_Concern_VOC_Technical_Briefing_14.pdf
6. Bager P, Wohlfahrt J, Fonager J, Albertsen. Increased Risk of Hospitalisation Associated with Infection with SARS-CoV-2 Lineage B.1.1.7 in Denmark. doi:Bager, Peter and Wohlfahrt, Jan and Fonager, Jannik and Albertsen, Mads and Yssing Michaelsen, Thomas and Holten Møller, Camilla and Ethelberg, Steen and Legarth, Rebecca and Fischer Button, Mia Sara and Gubbels, Sophie Madeleine and Voldstedlund, Marianne and Mølbak, Kåre and Skov, Robert Leo and Fomsgaard, Anders and Grove Krause, Tyra, Increased Risk of Hospitalisation Associated with Infection with SARS-CoV-2 Lineage B.1.1.7 in Denmark. Available at SSRN: https://ssrn.com/abstract=3792894 or http://dx.doi.org/10.2139/ssrn.3792894
7. NERVTAG paper on COVID-19 variant of concern B.1.1.7. GOVUK. Published online 2021. https://www.gov.uk/government/publications/nervtag-paper-on-covid-19-variant-of-concern-b117, http://files/64/nervtag-paper-on-covid-19-variant-of-concern-b117.html %[2021/02/08/18:37:19
8. Pearson CA, Eggo. Estimates of severity and transmissibility of novel South Africa SARS-CoV-2 variant 501Y.V2. https://cmmid.github.io/topics/covid19/reports/sa-novel-variant/2021_01_11_Transmissibility_and_severity_of_501Y_V2_in_SA.pdf
9. Jassat W MC. Increased Mortality among Individuals Hospitalised with COVID-19 during the Second Wave in South Africa.; 2021. https://www.medrxiv.org/content/10.1101/2021.03.09.21253184v1
10. Funk T, Pharris A, Spiteri G, et al. Characteristics of SARS-CoV-2 variants of concern B.1.1.7, B.1.351 or P.1: data from seven EU/EEA countries, weeks 38/2020 to 10/2021. Eurosurveillance. 2021;26(16). doi:https://doi.org/10.2807/1560-7917.ES.2021.26.16.2100348
11. Muik A, Wallisch A-K, Sänger B, et al. Neutralization of SARS-CoV-2 lineage B.1.1.7 pseudovirus by BNT162b2 vaccine–elicited human sera. Science. Published online 2021:eabg6105. https://science.sciencemag.org/content/sci/early/2021/01/28/science.abg6105.full.pdf
12. Gallais F, Gantner P, Bruel T, et al. Anti-SARS-CoV-2 Antibodies Persist for up to 13 Months and Reduce Risk of Reinfection. medRxiv. Published online January 1, 2021:2021.05.07.21256823. doi:10.1101/2021.05.07.21256823
13. Graham MS, Sudre CH, May A, et al. Changes in symptomatology, reinfection, and transmissibility associated with the SARS-CoV-2 variant B.1.1.7: an ecological study. Lancet Public Health. 2021;6(5):e335-e345. doi:10.1016/S2468-2667(21)00055-4
14. Wibmer CK, Ayres F, Hermanus T, et al. SARS-CoV-2 501Y.V2 escapes neutralization by South African COVID-19 donor plasma. Nat Med. Published online March 2021. https://www.ncbi.nlm.nih.gov/pubmed/33654292
15. Li R, Ma X, Deng J, et al. Differential efficiencies to neutralize the novel mutants B.1.1.7 and 501Y.V2 by collected sera from convalescent COVID-19 patients and RBD nanoparticle-vaccinated rhesus macaques. Cell Mol Immunol. Published online February 2021. https://www.ncbi.nlm.nih.gov/pubmed/33580167
16. Cele S, Gazy I, Jackson L, et al. Escape of SARS-CoV-2 501Y.V2 variants from neutralization by convalescent plasma. :19. https://www.medrxiv.org/content/10.1101/2021.01.26.21250224v1
17. Caniels TG, Bontjer I, Straten K van der, et al. Emerging SARS-CoV-2 variants of concern evade humoral immune responses from infection and vaccination. medRxiv. Published online June 1, 2021:2021.05.26.21257441. doi:10.1101/2021.05.26.21257441
18. Sabino EC, Buss LF, Carvalho MPS, et al. Resurgence of COVID-19 in Manaus, Brazil, despite high seroprevalence. The Lancet. 2021;397(10273):452-455. https://linkinghub.elsevier.com/retrieve/pii/S0140673621001835
19. Naveca F, Nasciment V, Souza V, et al. Phylogenetic relationship of SARS-CoV-2 sequences from Amazonas with emerging Brazilian variants harboring mutations E484K and N501Y in the Spike protein. Virological. Published online 2021. https://virological.org/t/phylogenetic-relationship-of-sars-cov-2-sequences-from-amazonas-with-emerging-brazilian-variants-harboring-mutations-e484k-and-n501y-in-the-spike-protein/585
20. Planas D, Veyer D, Baidaliuk A, et al. Reduced Sensitivity of Infectious SARS-CoV-2 Variant B.1.617.2 to Monoclonal Antibodies and Sera from Convalescent and Vaccinated Individuals. Microbiology; 2021. doi:10.1101/2021.05.26.445838
21. SARS-CoV-2 lateral flow antigen tests: evaluation of VUI-202012/01. GOVUK. https://www.gov.uk/government/publications/sars-cov-2-lateral-flow-antigen-tests-evaluation-of-vui-20201201/sars-cov-2-lateral-flow-antigen-tests-evaluation-of-vui-20201201, http://files/62/sars-cov-2-lateral-flow-antigen-tests-evaluation-of-vui-20201201.html %[2021/02/08/16:54:26

22. Goldberg Y, Mandel M, Woodbridge Y, et al. Protection of previous SARS-CoV-2 infection is similar to that of BNT162b2 vaccine protection: A three-month nationwide experience from Israel. medRxiv. Published online April 2021:2021.04.20.21255670-2021.04.20.21255670. doi:10.1101/2021.04.20.21255670
23. Haas EJ, Angulo FJ, McLaughlin JM, et al. Impact and effectiveness of mRNA BNT162b2 vaccine against SARS-CoV-2 infections and COVID-19 cases, hospitalisations, and deaths following a nationwide vaccination campaign in Israel: an observational study using national surveillance data. The Lancet. 2021;0(0). doi:10.1016/S0140-6736(21)00947-8
24. Abu-Raddad LJ, Chemaitelly H, Butt AA, National Study Group for COVID-19 Vaccination. Effectiveness of the BNT162b2 Covid-19 Vaccine against the B.1.1.7 and B.1.351 Variants. The New England journal of medicine. Published online May 2021. doi:10.1056/NEJMc2104974
25. Lopez Bernal J, Andrews N, Gower C, et al. Effectiveness of BNT162b2 MRNA Vaccine and ChAdOx1 Adenovirus Vector Vaccine on Mortality Following COVID-19. https://khub.net/documents/135939561/430986542/Effectiveness+of+BNT162b2+mRNA+vaccine+and+ChAdOx1+adenovirus+vector+vaccine+on+mortality+following+COVID-19.pdf/9884d371-8cc8-913c-211c-c2d7ce4dd1c3
26. Ismail SA, Vilaplana TG, Elgohari S, et al. Effectiveness of BNT162b2 mRNA and ChAdOx1 adenovirus vector COVID-19 vaccines on risk of hospitalisation among older adults in England: an observational study using surveillance data. :18.
27. Chung H, He S, Nasreen S, et al. Effectiveness of BNT162b2 and mRNA-1273 COVID-19 vaccines against symptomatic SARS-CoV-2 infection and severe COVID-19 outcomes in Ontario, Canada. Published online 2021:30.
28. Heath PT, Eva Galiza FP, David Neil Baxter M, et al. Efficacy of the NVX-CoV2373 Covid-19 Vaccine Against the B.1.1.7 Variant. medRxiv. Published online May 2021:2021.05.13.21256639-2021.05.13.21256639. doi:10.1101/2021.05.13.21256639
29. Emary KRW, Golubchik T, Aley PK, et al. Efficacy of ChAdOx1 nCoV-19 (AZD1222) vaccine against SARS-CoV-2 variant of concern 202012/01 (B.1.1.7): an exploratory analysis of a randomised controlled trial. The Lancet. 2021;397(10282):1351-1362. doi:10.1016/S0140-6736(21)00628-0
30. Lopez Bernal J, Andrews N, Gower C, et al. Effectiveness of the Pfizer-BioNTech and Oxford-AstraZeneca vaccines on covid-19 related symptoms, hospital admissions, and mortality in older adults in England: test negative case-control study. BMJ (Clinical research ed). 2021;373:n1088-n1088. doi:10.1136/bmj.n1088
31. Pritchard E, Matthews PC, Stoesser N, et al. Impact of vaccination on SARS-CoV-2 cases in the community: a population-based study using the UK's COVID-19 Infection Survey. medRxiv. Published online April 2021:2021.04.22.21255913-2021.04.22.21255913. doi:10.1101/2021.04.22.21255913
32. Jones NK, Rivett L, Seaman S, et al. Single-dose BNT162b2 vaccine protects against asymptomatic SARS-CoV-2 infection. eLife. 2021;10. doi:10.7554/elife.68808
33. Sadoff J, Gray G, Vandebosch A, et al. Safety and Efficacy of Single-Dose Ad26.COV2.S Vaccine against Covid-19. New England Journal of Medicine. Published online April 2021:NEJMoa2101544-NEJMoa2101544. doi:10.1056/NEJMoa2101544
34. Shinde V, Bhikha S, Hoosain Z, et al. Efficacy of NVX-CoV2373 Covid-19 Vaccine against the B.1.351 Variant. New England Journal of Medicine. Published online May 2021:NEJMoa2103055-NEJMoa2103055. doi:10.1056/NEJMoa2103055
35. Madhi SA, Baillie V, Cutland CL, et al. Efficacy of the ChAdOx1 nCoV-19 Covid-19 Vaccine against the B.1.351 Variant. New England Journal of Medicine. Published online March 2021:NEJMoa2102214-NEJMoa2102214. doi:10.1056/NEJMoa2102214
36. Hitchings MD, Ranzani OT, Sergio Scaramuzzini Torres M, et al. Effectiveness of CoronaVac in the setting of high SARS-CoV-2 P.1 variant transmission in Brazil: A test-negative case-control study. medRxiv. Published online April 2021:2021.04.07.21255081-2021.04.07.21255081. doi:10.1101/2021.04.07.21255081
37. Ranzani OT, Hitchings M, Neto MD, et al. Effectiveness of the CoronaVac vaccine in the elderly population during a P.1 variant-associated epidemic of COVID-19 in Brazil: A test-negative case-control study. medRxiv. Published online May 21, 2021:2021.05.19.21257472. doi:10.1101/2021.05.19.21257472
38. Lopez Bernal J, Andrews N, Gower C, et al. Effectiveness of COVID-19 vaccines against the B.1.617.2 variant. doi:https://doi.org/10.1101/2021.05.22.21257658
39. Edara VV, Floyd K, Lai L, et al. Infection and mRNA-1273 vaccine antibodies neutralize SARS-CoV-2 UK variant. medRxiv : the preprint server for health sciences. Published online February 2021:2021.02.02.21250799-2021.02.02.21250799. doi:10.1101/2021.02.02.21250799
40. Garcia-Beltran WF, Lam EC, St. Denis K, et al. Multiple SARS-CoV-2 variants escape neutralization by vaccine-induced humoral immunity. Cell. 2021;0(0). doi:10.1016/j.cell.2021.03.013
41. Liu Y, Liu J, Xia H, et al. Neutralizing Activity of BNT162b2-Elicited Serum. New England Journal of Medicine. 2021;384(15):1466-1468. doi:10.1056/nejmc2102017
42. Muik A, Wallisch A-K, Sänger B, et al. Neutralization of SARS-CoV-2 lineage B.1.1.7 pseudovirus by BNT162b2 vaccine–elicited human sera. Science. 2021;371(6534):1152-1153. doi:10.1126/science.abg6105
43. Trinité B, Pradenas E, Marfil S, et al. Previous SARS-CoV-2 infection increases B.1.1.7 cross-neutralization by vaccinated individuals. Equal contribution. bioRxiv. Published online March 2021:2021.03.05.433800-2021.03.05.433800. doi:10.1101/2021.03.05.433800
44. Wang Z, Schmidt F, Weisblum Y, et al. mRNA vaccine-elicited antibodies to SARS-CoV-2 and circulating variants. Nature. 2021;592(7855):616-616. doi:10.1038/s41586-021-03324-6
45. Wang P, Nair MS, Liu L, et al. Antibody Resistance of SARS-CoV-2 Variants B.1.351 and B.1.1.7. Nature. Published online March 2021:1-6. doi:10.1038/s41586-021-03398-2
46. Shen X, Tang H, Pajon R, et al. Neutralization of SARS-CoV-2 Variants B.1.429 and B.1.351. New England Journal of Medicine. Published online April 2021:NEJMc2103740-NEJMc2103740. doi:10.1056/nejmc2103740
47. Wu K, Werner AP, Moliva JI, et al. mRNA-1273 vaccine induces neutralizing antibodies against spike mutants from global SARS-CoV-2 variants. bioRxiv : the preprint server for biology. Published online January 2021:2021.01.25.427948-2021.01.25.427948. doi:10.1101/2021.01.25.427948
48. Planas D, Bruel T, Grzelak L, et al. Sensitivity of infectious SARS-CoV-2 B.1.1.7 and B.1.351 variants to neutralizing antibodies. Nature Medicine. Published online March 2021:1-8. doi:10.1038/s41591-021-01318-5
49. Becker M, Dulovic A, Junker D, et al. Immune response to SARS-CoV-2 variants of concern in vaccinated individuals. Nat Commun. 2021;12(1):3109. doi:10.1038/s41467-021-23473-6
50. McCallum M, Bassi J, De Marco A, et al. SARS-CoV-2 immune evasion by variant B.1.427/B.1.429. bioRxiv. Published online April 2021:2021.03.31.437925-2021.03.31.437925. doi:10.1101/2021.03.31.437925
51. Skelly DT, Harding Sir William AC, Gilbert-Jaramillo Sir William J, et al. Vaccine-induced immunity provides more robust heterotypic immunity than natural infection to emerging SARS-CoV-2 variants of concern. Published online February 2021. doi:10.21203/rs.3.rs-226857/v1
52. Hoffmann M, Arora P, Groß R, et al. SARS-CoV-2 variants B.1.351 and P.1 escape from neutralizing antibodies. Cell. 2021;184(9):2384-2393.e12. doi:10.1016/j.cell.2021.03.036
53. Dejnirattisai W, Zhou D, Supasa P, et al. Antibody evasion by the P.1 strain of SARS-CoV-2. Cell. 2021;0(0). doi:10.1016/j.cell.2021.03.055
54. Kuzmina A, Khalaila Y, Voloshin O, et al. SARS-CoV-2 spike variants exhibit differential infectivity and neutralization resistance to convalescent or post-vaccination sera. Cell Host and Microbe. 2021;29(4):522-528.e2. doi:10.1016/j.chom.2021.03.008
55. Ikegame S, A Siddiquey MN, Hung C-T, et al. Qualitatively distinct modes of Sputnik V vaccine-neutralization escape by SARS-CoV-2 Spike variants. medRxiv. Published online April 2021:2021.03.31.21254660-2021.03.31.21254660. doi:10.1101/2021.03.31.21254660

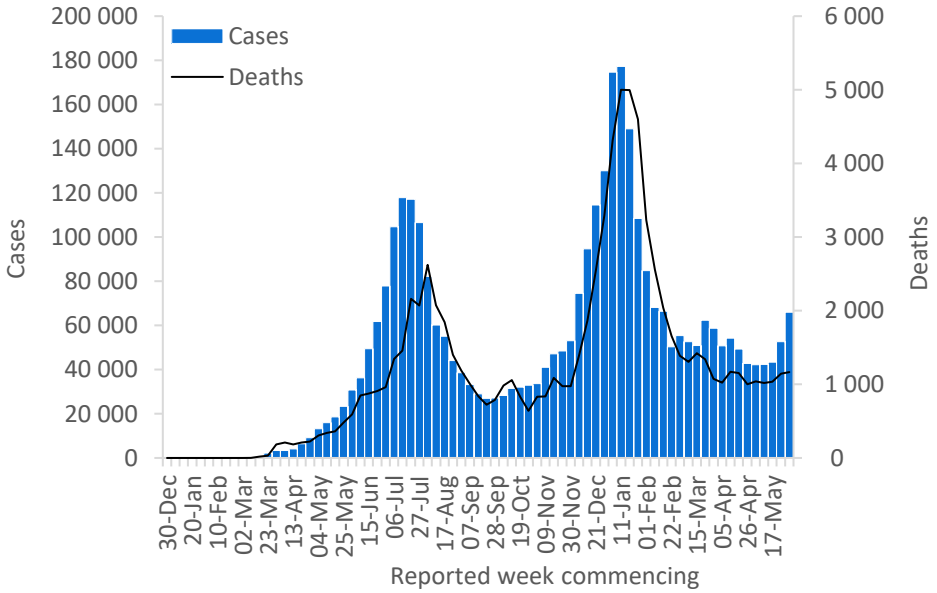
56. Gonzalez C, Saade C, Bal A, et al. Live virus neutralisation testing in convalescent patients and subjects vaccinated 1 against 19A, 20B, 20I/501Y.V1 and 20H/501Y.V2 isolates of SARS-CoV-2 2 3. medRxiv. Published online May 2021:2021.05.11.21256578-2021.05.11.21256578. doi:10.1101/2021.05.11.21256578
57. Liu Y, Liu J, Xia H, et al. BNT162b2-Elicited Neutralization against New SARS-CoV-2 Spike Variants. New England Journal of Medicine. Published online May 2021:NEJMc2106083-NEJMc2106083. doi:10.1056/NEJMc2106083
58. Collier AY, McMahan K, Yu J, et al. Immunogenicity of COVID-19 mRNA Vaccines in Pregnant and Lactating Women. Published online 2021. doi:10.1001/jama.2021.7563
59. Pegu A, O'Connell S, Schmidt SD, et al. Durability of mRNA-1273-induced antibodies against SARS-CoV-2 variants. bioRxiv. Published online May 2021:2021.05.13.444010-2021.05.13.444010. doi:10.1101/2021.05.13.444010
60. Wall EC, Wu M, Harvey R, et al. Neutralising antibody activity against SARS-CoV-2 VOCs B.1.617.2 and B.1.351 by BNT162b2 vaccination. The Lancet. 2021;0(0). doi:10.1016/S0140-6736(21)01290-3
61. Liu J, Bodnar BH, Wang X, et al. Correlation of vaccine-elicited antibody levels and neutralizing activities against SARS-CoV-2 and its variants. bioRxiv. Published online May 31, 2021:2021.05.31.445871. doi:10.1101/2021.05.31.445871
62. Anichini G, Terrosi C, Gori Savellini G, Gandolfo C, Franchi F, Cusi MG. Neutralizing Antibody Response of Vaccinees to SARS-CoV-2 Variants. Vaccines. 2021;9(5):517. doi:10.3390/vaccines9050517
63. Tada T, Dcosta BM, Samanovic MI, et al. Convalescent-Phase Sera and Vaccine-Elicited Antibodies Largely Maintain Neutralizing Titer against Global SARS-CoV-2 Variant Spikes. mBio. Published online June 1, 2021:e0069621. doi:10.1128/mBio.00696-21
64. Huang B, Dai L, Wang H, et al. Neutralization of SARS-CoV-2 VOC 501Y.V2 by human antisera elicited by both 1 inactivated BBIBP-CorV and recombinant dimeric RBD ZF2001 vaccines 2 3 Authors. bioRxiv. Published online February 2021:2021.02.01.429069-2021.02.01.429069. doi:10.1101/2021.02.01.429069
65. Wang G-L, Wang Z-Y, Duan L-J, et al. Susceptibility of Circulating SARS-CoV-2 Variants to Neutralization. New England Journal of Medicine. Published online April 2021:NEJMc2103022-NEJMc2103022. doi:10.1056/nejmc2103022
66. Cao Y, Yisimayi A, Bai Y, et al. Humoral immune response to circulating SARS-CoV-2 variants elicited by inactivated and RBD-subunit vaccines. Cell Research. Published online May 21, 2021:1-10. doi:10.1038/s41422-021-00514-9
67. Becker M, Dulovic A, Junker D, et al. Immune response to SARS-CoV-2 variants of concern in vaccinated individuals. medRxiv. Published online March 2021:2021.03.08.21252958-2021.03.08.21252958. doi:10.1101/2021.03.08.21252958
68. Bates TA, Leier HC, Lyski ZL, et al. Neutralization of SARS-CoV-2 variants by convalescent and vaccinated serum. medRxiv. Published online April 2021:2021.04.04.21254881-2021.04.04.21254881. doi:10.1101/2021.04.04.21254881
69. Stamatatos L, Czartoski J, Wan Y-H, et al. mRNA vaccination boosts cross-variant neutralizing antibodies elicited by SARS-CoV-2 infection. Science. Published online March 2021:eabg9175-eabg9175. doi:10.1126/science.abg9175
70. Zhou D, Dejnirattisai W, Supasa P, et al. Evidence of escape of SARS-CoV-2 variant B.1.351 from natural and vaccine-induced sera. Cell. 2021;189(0):1-14. doi:10.1016/j.cell.2021.02.037
71. Chang X, Sousa Augusto G, Liu X, et al. BNT162b2 mRNA COVID-19 vaccine induces antibodies of broader cross-reactivity than natural infection but recognition of mutant viruses is up to 10-fold reduced. bioRxiv. Published online March 2021:2021.03.13.435222-2021.03.13.435222. doi:10.1101/2021.03.13.435222
72. Edara VV, Norwood C, Floyd K, et al. Infection- and vaccine-induced antibody binding and neutralization of the B.1.351 SARS-CoV-2 variant. Cell Host and Microbe. 2021;29(4):516-521.e3. doi:10.1016/j.chom.2021.03.009
73. Ferreira I, Datir R, Papa G, et al. SARS-CoV-2 B.1.617 emergence and sensitivity to vaccine-elicited antibodies. bioRxiv. Published online May 2021:2021.05.08.443253-2021.05.08.443253. doi:10.1101/2021.05.08.443253
74. COVID-19 vaccinesWHO Meeting on correlates of protection. Accessed June 4, 2021. https://www.who.int/news-room/events/detail/2021/06/01/default-calendar/covid-19-vaccineswho-meeting-on-correlates-of-protection
75. Palacios R, Batista AP, Albuquerque CSN, et al. Efficacy and Safety of a COVID-19 Inactivated Vaccine in Healthcare Professionals in Brazil: The PROFISCOV Study. SSRN Electronic Journal. Published online April 2021. doi:10.2139/ssrn.3822780
76. Wu K, Werner AP, Koch M, et al. Serum Neutralizing Activity Elicited by mRNA-1273 Vaccine. New England Journal of Medicine. 2021;384(15):1468-1470. doi:10.1056/NEJMc2102179
77. Wang P, Casner RG, Nair MS, et al. Increased Resistance of SARS-CoV-2 Variant P.1 to Antibody Neutralization. bioRxiv. Published online April 9, 2021:2021.03.01.433466. doi:10.1101/2021.03.01.433466
78. Planas D, Veyer D, Baidaliuk A, et al. Reduced sensitivity of infectious SARS-CoV-2 variant B.1.617.2 to monoclonal antibodies and sera from convalescent and vaccinated individuals. bioRxiv. Published online May 27, 2021:2021.05.26.445838. doi:10.1101/2021.05.26.445838
79. Yadav P, Sapkal GN, Abraham P, et al. Neutralization of variant under investigation B.1.617 with sera of BBV152 vaccinees. bioRxiv. Published online April 2021:2021.04.23.441101-2021.04.23.441101. doi:10.1101/2021.04.23.441101
80. Abu-Raddad LJ, Chemaitelly H, Yassine HM, et al. Pfizer-BioNTech mRNA BNT162b2 Covid-19 vaccine protection against variants of concern after one versus two doses. J Travel Med. Published online May 28, 2021. doi:10.1093/jtm/taab083
81. Groß R, Zanoni M, Seidel A, et al. Heterologous ChAdOx1 NCoV-19 and BNT162b2 Prime-Boost Vaccination Elicits Potent Neutralizing Antibody Responses and T Cell Reactivity. Infectious Diseases (except HIV/AIDS); 2021. doi:10.1101/2021.05.30.21257971
82. Barros-Martins J, Hammerschmidt S, Cossmann A, et al. Humoral and cellular immune response against SARS-CoV-2 variants following heterologous and homologous ChAdOx1 nCoV-19/BNT162b2 vaccination. medRxiv. Published online June 3, 2021:2021.06.01.21258172. doi:10.1101/2021.06.01.21258172
83. Martin J, Klapsa D, Wilton T, et al. Tracking SARS-CoV-2 in Sewage: Evidence of Changes in Virus Variant Predominance during COVID-19 Pandemic. Viruses. 2020;12(10):1144. doi:10.3390/v12101144
84. Carcereny A, Martínez-Velázquez A, Bosch A, et al. Monitoring emergence of SARS-CoV-2 B.1.1.7 Variant through the Spanish National SARS-CoV-2 Wastewater Surveillance System (VATar COVID-19) from December 2020 to March 2021. medRxiv. Published online January 1, 2021:2021.05.27.21257918. doi:10.1101/2021.05.27.21257918

# WHO regional overviews

## African Region

The African Region reported just under 66 000 new cases, a 25% increase compared to the previous week, and over 1100 new deaths, a number similar to that of the previous week. The region reported an increase in weekly case incidence by over 20% for a second consecutive week, while death incidence increased for a third consecutively, though by a lower rate. The highest numbers of new cases were reported from South Africa (32 421 new cases; 54.7 new cases per 100 000 population; a 22% increase), Uganda (5745 new cases; 12.6 new cases per 100 000; a 137% increase), and Zambia (4789 new cases; 26.0 new cases per 100 000; a 191% increase).

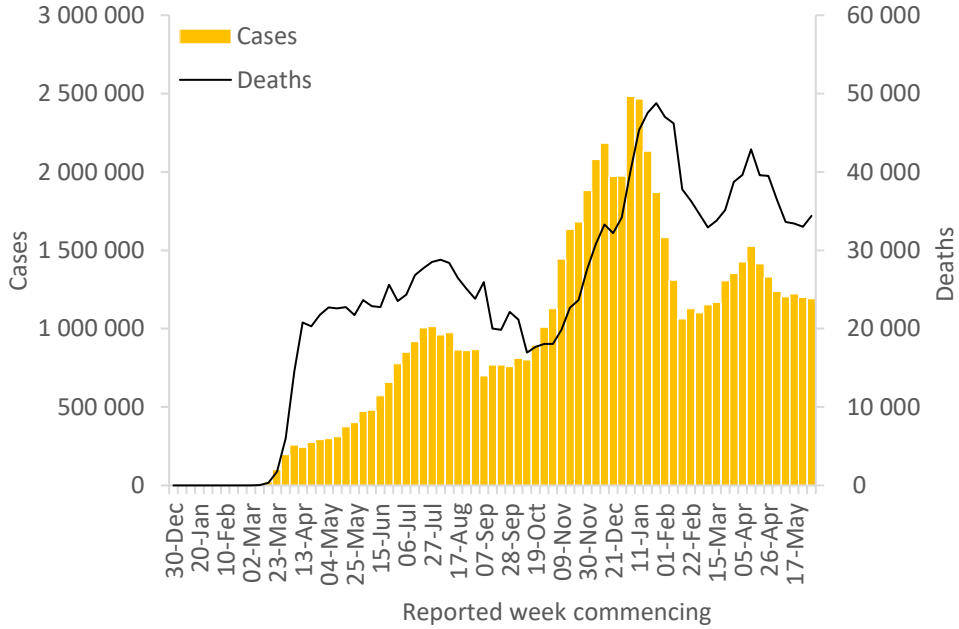
The highest numbers of new deaths were reported from South Africa (566 new deaths; 1.0 new deaths per 100 000 population; a 4% decrease), Kenya (123 new deaths; 0.2 new deaths per 100 000; a 34% increase), and Namibia (87 new deaths; 3.4 new deaths per 100 000; a 58% increase).




## Region of the Americas

The Region of the Americas reported just under 1.2 million new cases and over 34 000 new deaths, both figures similar to those of the previous week. Case incidence overall continued to decrease since mid-April 2021; however, high numbers in both cases and deaths continue to be observed in many countries, most notably in parts of South and Central America. The highest numbers of new cases were reported from Brazil (449 478 new cases; 211.5 new cases per 100 000; a 7% increase), Argentina (212 975 new cases; 471.2 new cases per 100 000; a 3% decrease), and Colombia (175 479 new cases; 344.9 new cases per 100 000; a 17% increase).

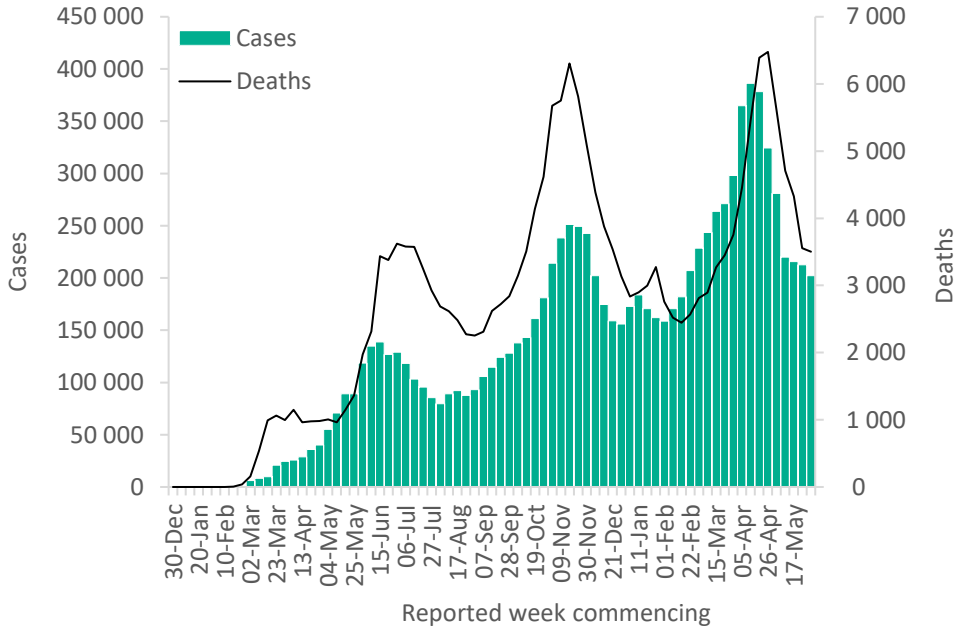
The highest numbers of new deaths were reported from Brazil (11 797 new deaths; 5.5 new deaths per 100 000; a 7% decrease), Mexico (5496 new deaths; 4.3 new deaths per 100 000; a 203% increase), and Argentina (3718 new deaths; 8.2 new deaths per 100 000; a 13% increase).



## Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 202 000 new cases and over 3500 new deaths. Overall, weekly case and death incidence has continued a general downward trend; however, surges in transmission have been observed in several countries. The highest numbers of new cases were reported from the Islamic Republic of Iran (67 533 new cases; 80.4 new cases per 100 000; a 3% decrease), Iraq (28 070 new cases; 69.8 new cases per 100 000; a 5% decrease), and Pakistan (14 272 new cases; 6.5 new cases per 100 000; a 24% decrease).

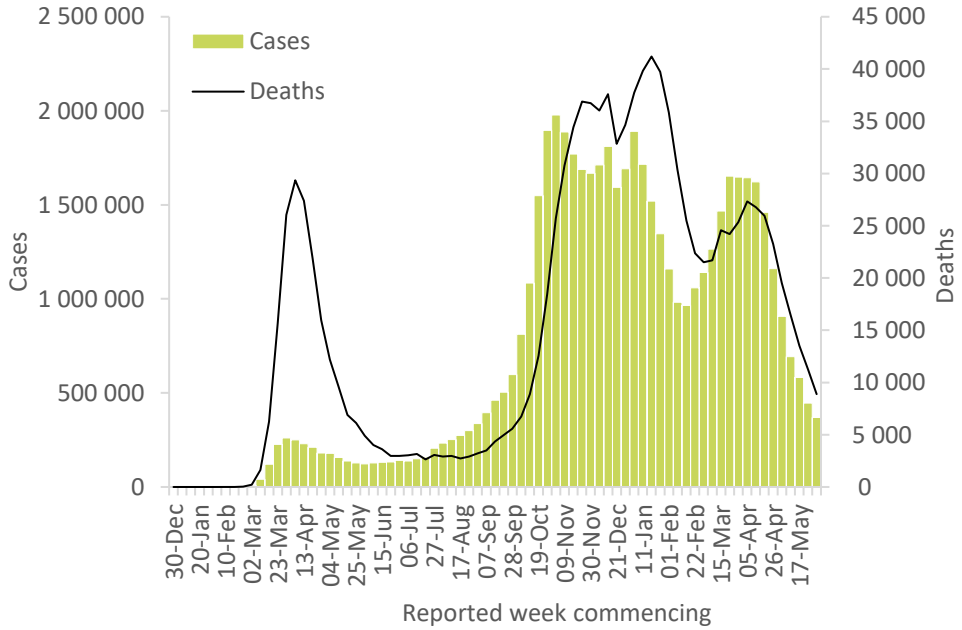
The highest numbers of new deaths were reported from the Islamic Republic of Iran (1200 new deaths; 1.4 new deaths per 100 000; a 12% decrease), Pakistan (509 new deaths; 0.2 new deaths per 100 000; similar to the previous week), and Tunisia (374 new deaths; 3.2 new deaths per 100 000; a 5% decrease).




## European Region

The European Region reported over 368 000 new cases and just under 8900 new deaths, a 17% and a 21% decrease respectively compared to the previous week. Steep declines in both case and death incidences continued for a tenth and eighth consecutive week, respectively. The highest numbers of new cases were reported from the Russian Federation (62 995 new cases; 43.2 new cases per 100 000; a 2% increase), France (47 528 new cases; 73.1 new cases per 100 000; a 22% decrease), and Turkey (46 616 new cases; 55.3 new cases per 100 000; a 19% decrease).

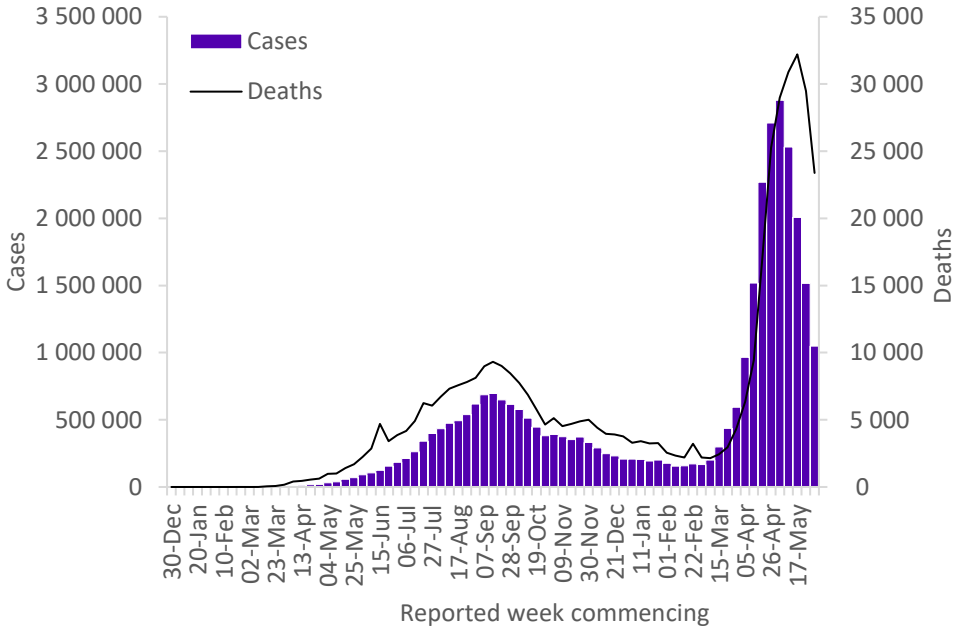
The highest numbers of new deaths were reported from the Russian Federation (2625 new deaths; 1.8 new deaths per 100 000; a number similar to that of the previous week), Germany (816 new deaths; 1.0 new deaths per 100 000; a 20% decrease), and Turkey (797 new deaths; 0.9 new deaths per 100 000; a 34% decrease).



## South-East Asia Region

The South-East Asia Region reported over 1.0 million new cases and over 23 000 new deaths, a 31% and a 21% decrease respectively compared to the previous week. Overall, case and death incidences continued to sharply decline in line with trends in India; however, marked increases have been observed elsewhere in the region. The highest numbers of new cases were reported from India (914 539 new cases; 66.3 new cases per 100 000; a 33% decrease), Indonesia (40 280 new cases; 14.7 new cases per 100 000; similar to the previous week), and Nepal (31 678 new cases; 108.7 new cases per 100 000; a 34% decrease).

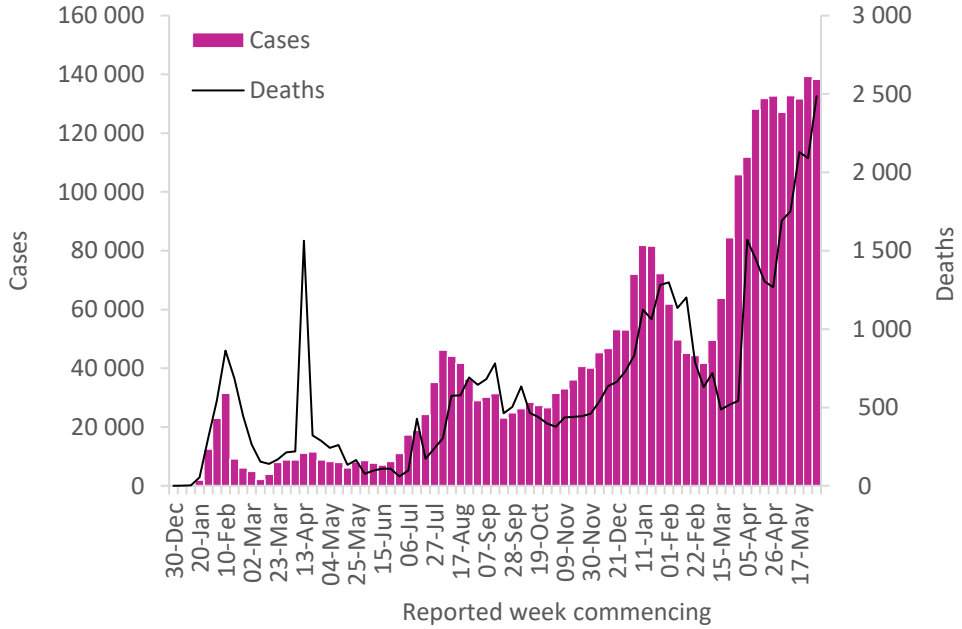
The highest numbers of new deaths were reported from India (20 787 new deaths; 1.5 new deaths per 100 000; a 22% decrease), Indonesia (1187 new deaths; 0.4 new deaths per 100 000; a 12% increase), and Nepal (636 new deaths; 2.2 new deaths per 100 000; a 37% decrease).




## Western Pacific Region

The Western Pacific Region reported over 138 000 new cases, a number similar to that of the previous week, and over 2400 new deaths, a 19% increase compared to the previous week. During the past week, the region recorded its highest incidence of deaths and second highest cases incidence to date. The highest numbers of new cases were reported from Malaysia (52 040 new cases; 160.8 new cases per 100 000; a 3% decrease), the Philippines (45 681 new cases; 41.7 new cases per 100 000; a 19% increase), and Japan (18 649 new cases; 14.7 new cases per 100 000; a 32% decrease).

The highest numbers of new deaths were reported from the Philippines (1010 new deaths; 0.9 new deaths per 100 000; a 30% increase), Malaysia (641 new deaths; 2.0 new deaths per 100 000; a 42% increase), and Japan (603 new deaths; 0.5 new deaths per 100 000; a 12% decrease).



## Key weekly updates

### WHO Director-General's key messages

- In his opening remarks at the media briefing on COVID-19 – 7 June 2021, the Director-General reminded us that although the number of cases and deaths have been decreasing for over a month, we are increasingly seeing a two-track pandemic: where many countries still face an extremely dangerous situation, while some of those with the highest vaccination rates are starting to talk about ending restrictions.
- On 12 June, leaders of G7 countries will meet for their annual summit. The Director-General urges the G7 not just to commit to sharing doses, but to commit to sharing them in June and July. The inequitable distribution of vaccines has allowed the virus to continue spreading, increasing the chances of a variant emerging that renders vaccines less effective and the biggest barrier to ending the pandemic remains sharing: of doses, of resources, of technology.

### Upcoming meetings

- 10 June 2021, 1pm CEST: Global Consultation on SARS-CoV-2 Variants of Concern and their Impact on Public Health Interventions – register here.

### Updates and publications

- The Sinovac COVID-19 vaccine: What you need to know
- Background document on the inactivated vaccine Sinovac-CoronaVac against COVID-19
- Interim recommendations for use of the inactivated COVID-19 vaccine, CoronaVac, developed by Sinovac
- Guidance on developing a national deployment and vaccination plan for COVID-19 vaccines
- Use of medical and non-medical/fabric masks for community outreach activities during the COVID-19 pandemic
- How to manage COVID-19 vaccines without Vaccine Viral Monitors (VVM) at vaccination service points?
- Revised scope and direction for the Smart Vaccination Certificate and WHO's role in the Global Health Trust Framework
- Statement on protection of health care in complex humanitarian emergencies
- Developing guidelines for fighting COVID-19: Fascinating to merge local and global expertise

## Technical guidance and other resources

- Technical guidance
- WHO Coronavirus Disease (COVID-19) Dashboard
- Weekly COVID-19 Operational Updates
- WHO COVID-19 case definitions
- COVID-19 Supply Chain Inter-Agency Coordination Cell Weekly Situational Update
- Research and Development
- Online courses on COVID-19 in official UN languages and in additional national languages
- The Strategic Preparedness and Response Plan (SPRP) outlining the support the international community can provide to all countries to prepare and respond to the virus
- Updates from WHO regions:
  - African Region
  - Region of the Americas
  - Eastern Mediterranean Region
  - South-East Asia Region
  - European Region
  - Western Pacific Region
- Recommendations and advice for the public:
  - Protect yourself
  - Questions and answers
  - Travel advice
- EPI-WIN: tailored information for individuals, organizations and communities
- WHO Academy COVID-19 mobile learning app

# Annex

## Annex 1. COVID-19 confirmed cases and deaths reported in the last seven days by countries, territories and areas, and WHO Region, as of 6 June 2021**

| Reporting Country/Territory/Area[i] | New cases in last 7 days | Cumulative cases | Cumulative cases per 100 thousand population | New deaths in last 7 days | Cumulative deaths | Cumulative deaths per 100 thousand population | Transmission classification[ii] |
|---|---|---|---|---|---|---|---|
| **Africa** | **65 943** | **3 563 825** | **317.7** | **1 167** | **88 274** | **7.9** | |
| South Africa | 32 421 | 1 691 491 | 2 852.0 | 566 | 56 929 | 96.0 | Community transmission |
| Uganda | 5 745 | 51 676 | 113.0 | 12 | 374 | 0.8 | Community transmission |
| Zambia | 4 789 | 99 540 | 541.5 | 27 | 1 303 | 7.1 | Community transmission |
| Namibia | 3 398 | 58 057 | 2 284.9 | 87 | 905 | 35.6 | Community transmission |
| Botswana | 2 451 | 58 764 | 2 498.9 | 35 | 866 | 36.8 | Community transmission |
| Algeria | 2 225 | 130 681 | 298.0 | 50 | 3 510 | 8.0 | Community transmission |
| Kenya | 1 840 | 172 325 | 320.5 | 123 | 3 264 | 6.1 | Community transmission |
| Ethiopia | 1 605 | 272 805 | 237.3 | 58 | 4 201 | 3.7 | Community transmission |
| Angola | 1 414 | 35 594 | 108.3 | 37 | 794 | 2.4 | Community transmission |
| Democratic Republic of the Congo | 1 380 | 32 796 | 36.6 | 15 | 797 | 0.9 | Community transmission |
| Cameroon | 947 | 78 929 | 297.3 | 5 | 1 275 | 4.8 | Community transmission |
| Seychelles | 865 | 12 238 | 12 443.7 | 2 | 42 | 42.7 | Community transmission |
| Cabo Verde | 730 | 31 003 | 5 576.2 | 4 | 267 | 48.0 | Community transmission |
| Nigeria | 471 | 166 756 | 80.9 | 46 | 2 117 | 1.0 | Community transmission |
| Ghana | 413 | 94 188 | 303.1 | 2 | 786 | 2.5 | Community transmission |
| Eritrea | 400 | 4 461 | 125.8 | 0 | 14 | 0.4 | Community transmission |
| Madagascar | 397 | 41 631 | 150.3 | 30 | 859 | 3.1 | Community transmission |
| Rwanda | 382 | 27 162 | 209.7 | 10 | 359 | 2.8 | Community transmission |
| Mozambique | 358 | 71 082 | 227.4 | 1 | 837 | 2.7 | Community transmission |
| Mauritania | 322 | 19 785 | 425.5 | 3 | 466 | 10.0 | Community transmission |
| Senegal | 300 | 41 631 | 248.6 | 7 | 1 145 | 6.8 | Community transmission |
| Côte d'Ivoire | 281 | 47 476 | 180.0 | 5 | 306 | 1.2 | Community transmission |
| Congo | 262 | 11 920 | 216.0 | 2 | 155 | 2.8 | Community transmission |

| Reporting Country/Territory/Area[i] | New cases in last 7 days | Cumulative cases | Cumulative cases per 100 thousand population | New deaths in last 7 days | Cumulative deaths | Cumulative deaths per 100 thousand population | Transmission classification[ii] |
|---|---|---|---|---|---|---|---|
| Zimbabwe | 235 | 39 168 | 263.5 | 11 | 1 605 | 10.8 | Community transmission |
| Gabon | 226 | 24 591 | 1 104.8 | 4 | 154 | 6.9 | Community transmission |
| Burundi | 151 | 4 905 | 41.3 | 2 | 8 | 0.1 | Community transmission |
| Togo | 101 | 13 533 | 163.5 | 0 | 125 | 1.5 | Community transmission |
| Equatorial Guinea | 97 | 8 626 | 614.8 | 0 | 118 | 8.4 | Community transmission |
| Guinea | 83 | 23 255 | 177.1 | 1 | 162 | 1.2 | Community transmission |
| Liberia | 72 | 2 251 | 44.5 | 0 | 86 | 1.7 | Community transmission |
| Mauritius | 65 | 1 458 | 114.6 | 1 | 18 | 1.4 | Clusters of cases |
| Malawi | 55 | 34 384 | 179.7 | 2 | 1 156 | 6.0 | Community transmission |
| Eswatini | 47 | 18 636 | 1 606.3 | 1 | 673 | 58.0 | Community transmission |
| Mali | 31 | 14 296 | 70.6 | 1 | 518 | 2.6 | Community transmission |
| Niger | 28 | 5 438 | 22.5 | 0 | 192 | 0.8 | Community transmission |
| Sierra Leone | 28 | 4 168 | 52.3 | 0 | 79 | 1.0 | Community transmission |
| Guinea-Bissau | 26 | 3 787 | 192.4 | 0 | 68 | 3.5 | Community transmission |
| Benin | 24 | 8 082 | 66.7 | 1 | 102 | 0.8 | Community transmission |
| Burkina Faso | 22 | 13 452 | 64.4 | 1 | 167 | 0.8 | Community transmission |
| Central African Republic | 16 | 7 101 | 147.0 | 0 | 98 | 2.0 | Community transmission |
| Lesotho | 12 | 10 837 | 505.9 | 0 | 326 | 15.2 | Community transmission |
| Chad | 11 | 4 939 | 30.1 | 1 | 174 | 1.1 | Community transmission |
| Sao Tome and Principe | 8 | 2 353 | 1 073.6 | 0 | 37 | 16.9 | Community transmission |
| Comoros | 7 | 3 956 | 454.9 | 0 | 146 | 16.8 | Community transmission |
| Gambia | 6 | 5 999 | 248.2 | 0 | 179 | 7.4 | Community transmission |
| South Sudan | 0 | 10 688 | 95.5 | 0 | 115 | 1.0 | Community transmission |
| United Republic of Tanzania | 0 | 509 | 0.9 | 0 | 21 | 0.0 | Pending |
| **Territories[iii]** | | | | | | | |
| Réunion | 1 174 | 26 075 | 2 912.4 | 14 | 203 | 22.7 | Community transmission |
| Mayotte | 22 | 19 347 | 7 091.6 | 0 | 173 | 63.4 | Community transmission |

| Reporting Country/Territory/Area[i] | New cases in last 7 days | Cumulative cases | Cumulative cases per 100 thousand population | New deaths in last 7 days | Cumulative deaths | Cumulative deaths per 100 thousand population | Transmission classification[ii] |
|---|---|---|---|---|---|---|---|
| **Americas** | **1 191 047** | **68 370 018** | **6 684.8** | **34 392** | **1 794 865** | **175.5** | |
| Brazil | 449 478 | 16 841 408 | 7 923.2 | 11 797 | 470 842 | 221.5 | Community transmission |
| Argentina | 212 975 | 3 915 397 | 8 663.2 | 3 718 | 80 411 | 177.9 | Community transmission |
| Colombia | 175 479 | 3 518 046 | 6 914.0 | 3 683 | 90 890 | 178.6 | Community transmission |
| United States of America | 99 103 | 33 015 604 | 9 974.4 | 2 984 | 591 276 | 178.6 | Community transmission |
| Chile | 50 510 | 1 420 266 | 7 429.6 | 769 | 29 816 | 156.0 | Community transmission |
| Peru | 28 611 | 1 976 166 | 5 993.5 | 2 770 | 185 813 | 563.6 | Community transmission |
| Uruguay | 26 292 | 308 490 | 8 880.7 | 398 | 4 516 | 130.0 | Community transmission |
| Mexico | 20 853 | 2 429 631 | 1 884.4 | 5 496 | 228 568 | 177.3 | Community transmission |
| Paraguay | 19 999 | 368 183 | 5 162.0 | 717 | 9 609 | 134.7 | Community transmission |
| Bolivia (Plurinational State of) | 18 887 | 383 457 | 3 285.0 | 523 | 14 900 | 127.6 | Community transmission |
| Canada | 15 233 | 1 389 508 | 3 681.6 | 239 | 25 679 | 68.0 | Community transmission |
| Costa Rica | 13 877 | 327 979 | 6 438.4 | 191 | 4 153 | 81.5 | Community transmission |
| Dominican Republic | 9 155 | 299 681 | 2 762.6 | 24 | 3 652 | 33.7 | Community transmission |
| Venezuela (Bolivarian Republic of) | 9 105 | 239 252 | 841.4 | 103 | 2 698 | 9.5 | Community transmission |
| Cuba | 7 744 | 147 831 | 1 305.2 | 60 | 1 003 | 8.9 | Community transmission |
| Guatemala | 7 555 | 261 392 | 1 459.0 | 159 | 8 280 | 46.2 | Community transmission |
| Ecuador | 6 688 | 431 429 | 2 445.3 | 288 | 20 773 | 117.7 | Community transmission |
| Honduras | 4 588 | 241 039 | 2 433.6 | 170 | 6 454 | 65.2 | Community transmission |
| Panama | 4 268 | 381 122 | 8 833.0 | 24 | 6 389 | 148.1 | Community transmission |
| Trinidad and Tobago | 3 181 | 25 801 | 1 843.6 | 98 | 556 | 39.7 | Community transmission |
| Suriname | 1 704 | 16 009 | 2 729.0 | 50 | 332 | 56.6 | Community transmission |
| Haiti | 1 024 | 15 282 | 134.0 | 16 | 323 | 2.8 | Community transmission |
| El Salvador | 895 | 74 141 | 1 143.1 | 25 | 2 266 | 34.9 | Community transmission |
| Guyana | 735 | 17 459 | 2 219.7 | 23 | 403 | 51.2 | Community transmission |
| Jamaica | 527 | 48 901 | 1 651.4 | 22 | 964 | 32.6 | Community transmission |
| Bahamas | 170 | 11 930 | 3 033.7 | 2 | 232 | 59.0 | Clusters of cases |

| Reporting Country/Territory/Area[i] | New cases in last 7 days | Cumulative cases | Cumulative cases per 100 thousand population | New deaths in last 7 days | Cumulative deaths | Cumulative deaths per 100 thousand population | Transmission classification[ii] |
|---|---|---|---|---|---|---|---|
| Nicaragua | 116 | 5 949 | 89.8 | 1 | 187 | 2.8 | Community transmission |
| Saint Lucia | 73 | 5 108 | 2 781.7 | 3 | 80 | 43.6 | Community transmission |
| Belize | 70 | 12 861 | 3 234.4 | 1 | 325 | 81.7 | Community transmission |
| Saint Vincent and the Grenadines | 41 | 2 068 | 1 864.1 | 0 | 12 | 10.8 | Community transmission |
| Barbados | 20 | 4 029 | 1 402.0 | 0 | 47 | 16.4 | Community transmission |
| Saint Kitts and Nevis | 10 | 78 | 146.6 | 0 | 0 | 0.0 | Clusters of cases |
| Antigua and Barbuda | 4 | 1 263 | 1 289.7 | 0 | 42 | 42.9 | Clusters of cases |
| Dominica | 0 | 188 | 261.1 | 0 | 0 | 0.0 | Clusters of cases |
| Grenada | 0 | 161 | 143.1 | 0 | 1 | 0.9 | Sporadic cases |
| **Territories[iii]** | | | | | | | |
| French Guiana | 962 | 24 725 | 8 278.0 | 5 | 121 | 40.5 | Community transmission |
| Puerto Rico | 464 | 138 949 | 4 856.9 | 17 | 2 516 | 87.9 | Community transmission |
| Guadeloupe | 234 | 17 108 | 4 275.7 | 5 | 260 | 65.0 | Community transmission |
| Saint Martin | 104 | 2 113 | 5 465.7 | 7 | 22 | 56.9 | Community transmission |
| United States Virgin Islands | 95 | 3 560 | 3 409.1 | 1 | 28 | 26.8 | Community transmission |
| Martinique | 81 | 12 060 | 3 213.7 | 2 | 97 | 25.8 | Community transmission |
| Aruba | 61 | 11 018 | 10 319.8 | 0 | 107 | 100.2 | Community transmission |
| Sint Maarten | 44 | 2 448 | 5 708.7 | 0 | 28 | 65.3 | Community transmission |
| Turks and Caicos Islands | 8 | 2 420 | 6 250.3 | 0 | 17 | 43.9 | Clusters of cases |
| Cayman Islands | 6 | 587 | 893.2 | 0 | 2 | 3.0 | Sporadic cases |
| Saint Barthélemy | 6 | 1 029 | 10 409.7 | 0 | 1 | 10.1 | Clusters of cases |
| Curaçao | 5 | 12 276 | 7 481.1 | 0 | 122 | 74.3 | Community transmission |
| Bonaire | 4 | 1 589 | 7 597.4 | 0 | 17 | 81.3 | Community transmission |
| Bermuda | 3 | 2 494 | 4 004.9 | 1 | 33 | 53.0 | Community transmission |
| Anguilla | 0 | 109 | 726.6 | 0 | 0 | 0.0 | Clusters of cases |
| British Virgin Islands | 0 | 289 | 955.8 | 0 | 1 | 3.3 | Clusters of cases |
| Falkland Islands (Malvinas) | 0 | 63 | 1 808.8 | 0 | 0 | 0.0 | Sporadic cases |

| Reporting Country/Territory/Area[i] | New cases in last 7 days | Cumulative cases | Cumulative cases per 100 thousand population | New deaths in last 7 days | Cumulative deaths | Cumulative deaths per 100 thousand population | Transmission classification[ii] |
|---|---|---|---|---|---|---|---|
| Montserrat | 0 | 20 | 400.1 | 0 | 1 | 20.0 | No cases |
| Saba | 0 | 7 | 362.1 | 0 | 0 | 0.0 | Sporadic cases |
| Saint Pierre and Miquelon | 0 | 25 | 431.4 | 0 | 0 | 0.0 | No cases |
| Sint Eustatius | 0 | 20 | 637.1 | 0 | 0 | 0.0 | No cases |
| **Eastern Mediterranean** | **202 208** | **10 278 904** | **1 406.5** | **3 503** | **205 145** | **28.1** | |
| Iran (Islamic Republic of) | 67 533 | 2 960 751 | 3 525.0 | 1 200 | 80 941 | 96.4 | Community transmission |
| Iraq | 28 070 | 1 221 678 | 3 037.3 | 184 | 16 518 | 41.1 | Community transmission |
| Pakistan | 14 272 | 930 511 | 421.3 | 509 | 21 189 | 9.6 | Community transmission |
| United Arab Emirates | 13 934 | 581 197 | 5 876.4 | 23 | 1 696 | 17.1 | Community transmission |
| Bahrain | 13 883 | 249 582 | 14 667.7 | 152 | 1 091 | 64.1 | Community transmission |
| Tunisia | 10 408 | 353 782 | 2 993.4 | 374 | 12 948 | 109.6 | Community transmission |
| Kuwait | 9 183 | 315 900 | 7 397.1 | 30 | 1 794 | 42.0 | Community transmission |
| Afghanistan | 8 463 | 79 224 | 203.5 | 226 | 3 145 | 8.1 | Community transmission |
| Saudi Arabia | 8 278 | 456 562 | 1 311.4 | 106 | 7 440 | 21.4 | Community transmission |
| Oman | 7 433 | 222 799 | 4 362.9 | 80 | 2 401 | 47.0 | Community transmission |
| Egypt | 6 512 | 267 171 | 261.1 | 308 | 15 309 | 15.0 | Clusters of cases |
| Jordan | 4 180 | 739 319 | 7 246.0 | 73 | 9 516 | 93.3 | Community transmission |
| Morocco | 2 327 | 521 195 | 1 412.0 | 35 | 9 173 | 24.9 | Community transmission |
| Libya | 2 138 | 186 953 | 2 720.8 | 21 | 3 137 | 45.7 | Community transmission |
| Qatar | 1 414 | 218 455 | 7 582.5 | 12 | 566 | 19.6 | Community transmission |
| Lebanon | 1 291 | 541 423 | 7 932.4 | 40 | 7 758 | 113.7 | Community transmission |
| Sudan | 525 | 36 004 | 82.1 | 69 | 2 697 | 6.2 | Clusters of cases |
| Syrian Arab Republic | 199 | 24 639 | 140.8 | 27 | 1 790 | 10.2 | Community transmission |
| Somalia | 76 | 14 729 | 92.7 | 5 | 773 | 4.9 | Community transmission |
| Yemen | 45 | 6 780 | 22.7 | 5 | 1 325 | 4.4 | Community transmission |
| Djibouti | 29 | 11 556 | 1 169.6 | 0 | 154 | 15.6 | Clusters of cases |
| **Territories[iii]** | | | | | | | |

| Reporting Country/Territory/Area[i] | New cases in last 7 days | Cumulative cases | Cumulative cases per 100 thousand population | New deaths in last 7 days | Cumulative deaths | Cumulative deaths per 100 thousand population | Transmission classification[ii] |
|---|---|---|---|---|---|---|---|
| occupied Palestinian territory | 2 015 | 338 694 | 6 639.2 | 24 | 3 784 | 74.2 | Community transmission |
| **Europe** | **368 874** | **54 629 665** | **5 854.8** | **8 890** | **1 157 890** | **124.1** | |
| Kosovo [1] | 104 | 107 443 | | 1 | 2 234 | | Community transmission |
| Russian Federation | 62 995 | 5 126 437 | 3 512.8 | 2 625 | 123 787 | 84.8 | Clusters of cases |
| France | 47 528 | 5 605 201 | 8 618.2 | 553 | 109 096 | 167.7 | Community transmission |
| Turkey | 46 616 | 5 282 594 | 6 263.5 | 797 | 48 068 | 57.0 | Community transmission |
| The United Kingdom | 30 724 | 4 511 673 | 6 646.0 | 61 | 127 836 | 188.3 | Community transmission |
| Germany | 21 219 | 3 700 367 | 4 449.3 | 816 | 89 222 | 107.3 | Community transmission |
| Italy | 17 098 | 4 230 153 | 7 092.6 | 470 | 126 472 | 212.1 | Clusters of cases |
| Netherlands | 17 048 | 1 661 454 | 9 544.4 | 60 | 17 675 | 101.5 | Community transmission |
| Spain | 16 219 | 3 693 012 | 7 802.3 | 68 | 80 099 | 169.2 | Community transmission |
| Ukraine | 13 045 | 2 214 517 | 5 063.6 | 710 | 51 182 | 117.0 | Community transmission |
| Sweden | 9 355 | 1 078 062 | 10 438.7 | 8 | 14 523 | 140.6 | Community transmission |
| Kazakhstan | 9 067 | 450 868 | 2 401.2 | 144 | 7 465 | 39.8 | Clusters of cases |
| Belgium | 8 899 | 1 070 801 | 9 293.2 | 95 | 25 033 | 217.3 | Community transmission |
| Greece | 8 394 | 408 789 | 3 813.8 | 229 | 12 253 | 114.3 | Community transmission |
| Belarus | 7 272 | 398 909 | 4 221.6 | 79 | 2 900 | 30.7 | Community transmission |
| Denmark | 6 202 | 285 636 | 4 905.5 | 2 | 2 518 | 43.2 | Community transmission |
| Georgia | 5 495 | 349 098 | 8 751.1 | 153 | 4 910 | 123.1 | Community transmission |
| Portugal | 3 821 | 852 034 | 8 275.5 | 9 | 17 032 | 165.4 | Clusters of cases |
| Poland | 3 186 | 2 875 136 | 7 574.5 | 414 | 74 152 | 195.4 | Community transmission |
| Switzerland | 2 699 | 694 181 | 8 020.9 | 4 | 10 215 | 118.0 | Community transmission |
| Ireland | 2 532 | 263 689 | 5 311.6 | 0 | 4 941 | 99.5 | Community transmission |
| Kyrgyzstan | 2 418 | 106 973 | 1 639.6 | 44 | 1 847 | 28.3 | Clusters of cases |
| Czechia | 2 358 | 1 663 517 | 15 555.7 | 55 | 30 159 | 282.0 | Community transmission |
| Austria | 2 267 | 642 429 | 7 217.4 | 39 | 10 373 | 116.5 | Community transmission |
| Lithuania | 2 254 | 276 453 | 9 894.2 | 50 | 4 307 | 154.1 | Community transmission |

| Reporting Country/Territory/Area[i] | New cases in last 7 days | Cumulative cases | Cumulative cases per 100 thousand population | New deaths in last 7 days | Cumulative deaths | Cumulative deaths per 100 thousand population | Transmission classification[ii] |
|---|---|---|---|---|---|---|---|
| Norway | 2 140 | 126 169 | 2 350.6 | 2 | 785 | 14.6 | Clusters of cases |
| Hungary | 1 976 | 806 008 | 8 250.2 | 146 | 29 770 | 304.7 | Community transmission |
| Latvia | 1 759 | 134 677 | 7 059.7 | 37 | 2 407 | 126.2 | Community transmission |
| Slovenia | 1 721 | 255 218 | 12 177.2 | 9 | 4 707 | 224.6 | Clusters of cases |
| Uzbekistan | 1 598 | 101 722 | 303.9 | 6 | 696 | 2.1 | Clusters of cases |
| Serbia | 1 516 | 713 562 | 10 301.6 | 65 | 6 909 | 99.7 | Community transmission |
| Croatia | 1 424 | 357 565 | 8 811.0 | 72 | 8 086 | 199.3 | Community transmission |
| Romania | 1 316 | 1 078 742 | 5 581.0 | 478 | 30 725 | 159.0 | Community transmission |
| Bulgaria | 1 205 | 419 426 | 6 033.6 | 156 | 17 813 | 256.2 | Clusters of cases |
| Azerbaijan | 924 | 334 647 | 3 300.5 | 33 | 4 936 | 48.7 | Clusters of cases |
| Slovakia | 746 | 390 436 | 7 153.6 | 65 | 12 404 | 227.3 | Clusters of cases |
| Estonia | 633 | 130 119 | 9 790.9 | 12 | 1 263 | 95.0 | Clusters of cases |
| Armenia | 544 | 223 180 | 7 531.6 | 26 | 4 458 | 150.4 | Community transmission |
| Bosnia and Herzegovina | 422 | 204 360 | 6 228.9 | 173 | 9 395 | 286.4 | Community transmission |
| Finland | 401 | 92 770 | 1 679.0 | 11 | 959 | 17.4 | Community transmission |
| Cyprus | 387 | 72 750 | 8 192.5 | 3 | 363 | 40.9 | Clusters of cases |
| Republic of Moldova | 327 | 255 432 | 6 332.0 | 32 | 6 132 | 152.0 | Community transmission |
| Luxembourg | 293 | 70 182 | 11 209.2 | 4 | 818 | 130.6 | Community transmission |
| Montenegro | 188 | 99 804 | 15 890.8 | 8 | 1 591 | 253.3 | Clusters of cases |
| North Macedonia | 161 | 155 407 | 7 459.4 | 50 | 5 448 | 261.5 | Clusters of cases |
| Israel | 112 | 839 566 | 9 699.8 | 10 | 6 418 | 74.1 | Community transmission |
| Albania | 77 | 132 374 | 4 599.8 | 2 | 2 451 | 85.2 | Clusters of cases |
| Andorra | 65 | 13 758 | 17 806.3 | 0 | 127 | 164.4 | Community transmission |
| Malta | 39 | 30 568 | 5 940.6 | 0 | 419 | 81.4 | Clusters of cases |
| Iceland | 28 | 6 604 | 1 813.6 | 0 | 30 | 8.2 | Community transmission |
| Liechtenstein | 10 | 3 111 | 8 029.0 | 0 | 57 | 147.1 | Sporadic cases |
| Monaco | 5 | 2 508 | 6 390.8 | 1 | 33 | 84.1 | Sporadic cases |

| Reporting Country/Territory/Area[i] | New cases in last 7 days | Cumulative cases | Cumulative cases per 100 thousand population | New deaths in last 7 days | Cumulative deaths | Cumulative deaths per 100 thousand population | Transmission classification[ii] |
|---|---|---|---|---|---|---|---|
| Holy See | 0 | 26 | 3 213.8 | 0 | 0 | 0.0 | Sporadic cases |
| San Marino | 0 | 5 090 | 14 997.9 | 0 | 90 | 265.2 | Community transmission |
| Tajikistan | 0 | 13 714 | 143.8 | 0 | 91 | 1.0 | Pending |
| **Territories[iii]** | | | | | | | |
| Faroe Islands | 29 | 741 | 1 516.4 | 0 | 1 | 2.0 | Sporadic cases |
| Gibraltar | 7 | 4 300 | 12 763.1 | 0 | 94 | 279.0 | Clusters of cases |
| Isle of Man | 5 | 1 597 | 1 878.1 | 0 | 29 | 34.1 | No cases |
| Guernsey | 1 | 823 | 1 276.6 | 3 | 17 | 26.4 | Community transmission |
| Greenland | 0 | 40 | 70.5 | 0 | 0 | 0.0 | No cases |
| Jersey | 0 | 3 243 | 3 008.5 | 0 | 69 | 64.0 | Community transmission |
| **South-East Asia** | **1 049 694** | **32 654 915** | **1 615.5** | **23 369** | **425 123** | **21.0** | |
| India | 914 539 | 28 809 339 | 2 087.6 | 20 787 | 346 759 | 25.1 | Clusters of cases |
| Indonesia | 40 280 | 1 850 206 | 676.4 | 1 187 | 51 449 | 18.8 | Community transmission |
| Nepal | 31 678 | 585 100 | 2 008.1 | 636 | 7 799 | 26.8 | Community transmission |
| Thailand | 23 160 | 177 467 | 254.3 | 224 | 1 236 | 1.8 | Clusters of cases |
| Sri Lanka | 21 764 | 202 357 | 945.0 | 251 | 1 656 | 7.7 | Clusters of cases |
| Bangladesh | 11 928 | 809 314 | 491.4 | 252 | 12 801 | 7.8 | Community transmission |
| Maldives | 4 632 | 67 538 | 12 494.5 | 24 | 182 | 33.7 | Clusters of cases |
| Timor-Leste | 907 | 7 659 | 580.9 | 1 | 17 | 1.3 | Community transmission |
| Myanmar | 727 | 144 253 | 265.1 | 7 | 3 223 | 5.9 | Clusters of cases |
| Bhutan | 79 | 1 682 | 218.0 | 0 | 1 | 0.1 | Clusters of cases |
| **Western Pacific** | **138 239** | **3 139 006** | **159.8** | **2 486** | **47 634** | **2.4** | |
| Malaysia | 52 040 | 610 574 | 1 886.5 | 641 | 3 291 | 10.2 | Community transmission |
| Philippines | 45 681 | 1 262 250 | 1 151.9 | 1 010 | 21 732 | 19.8 | Community transmission |
| Japan | 18 649 | 760 323 | 601.2 | 603 | 13 523 | 10.7 | Clusters of cases |
| Mongolia | 7 357 | 63 978 | 1 951.6 | 39 | 307 | 9.4 | Clusters of cases |
| Republic of Korea | 4 242 | 144 152 | 281.2 | 16 | 1 973 | 3.8 | Clusters of cases |

| Reporting Country/Territory/Area[i] | New cases in last 7 days | Cumulative cases | Cumulative cases per 100 thousand population | New deaths in last 7 days | Cumulative deaths | Cumulative deaths per 100 thousand population | Transmission classification[ii] |
|---|---|---|---|---|---|---|---|
| Cambodia | 4 209 | 33 613 | 201.0 | 43 | 252 | 1.5 | Sporadic cases |
| China | 3 341 | 114 105 | 7.8 | 125 | 5 070 | 0.3 | Clusters of cases |
| Viet Nam | 1 672 | 8 580 | 8.8 | 6 | 53 | 0.1 | Clusters of cases |
| Papua New Guinea | 426 | 16 327 | 182.5 | 2 | 164 | 1.8 | Community transmission |
| Fiji | 244 | 604 | 67.4 | 0 | 4 | 0.4 | Sporadic cases |
| Singapore | 173 | 62 176 | 1 062.8 | 1 | 33 | 0.6 | Sporadic cases |
| Australia | 75 | 30 158 | 118.3 | 0 | 910 | 3.6 | Clusters of cases |
| Lao People's Democratic Republic | 49 | 1 957 | 26.9 | 0 | 3 | 0.0 | Sporadic cases |
| New Zealand | 10 | 2 326 | 48.2 | 0 | 26 | 0.5 | Sporadic cases |
| Brunei Darussalam | 3 | 244 | 55.8 | 0 | 3 | 0.7 | Sporadic cases |
| Solomon Islands | 0 | 20 | 2.9 | 0 | 0 | 0.0 | No cases |
| **Territories[iii]** | | | | | | | |
| Guam | 39 | 7 957 | 4 714.6 | 0 | 139 | 82.4 | Clusters of cases |
| French Polynesia | 29 | 18 889 | 6 724.3 | 0 | 142 | 50.6 | Sporadic cases |
| Marshall Islands | 0 | 4 | 6.8 | 0 | 0 | 0.0 | No cases |
| New Caledonia | 0 | 128 | 44.8 | 0 | 0 | 0.0 | Sporadic cases |
| Northern Mariana Islands (Commonwealth of the) | 0 | 183 | 317.9 | 0 | 2 | 3.5 | Pending |
| Samoa | 0 | 1 | 0.5 | 0 | 0 | 0.0 | No cases |
| Vanuatu | 0 | 3 | 1.0 | 0 | 0 | 0.0 | No cases |
| Wallis and Futuna | 0 | 454 | 4 037.0 | 0 | 7 | 62.2 | Sporadic cases |
| **Global** | **3 016 005** | **172 637 097** | | **73 807** | **3 718 944** | | |

*See *Annex 3: Data, table and figure notes*

## Annex 2. List of countries/territories/areas reporting Variants of Concern as of 8 June 2021**

| Country/Territory/Area | Alpha | Beta | Gamma | Delta | Delta+ |
|---|---|---|---|---|---|
| Afghanistan | ● | - | - | - | - |
| Albania | ● | - | - | - | - |
| Algeria | ● | - | - | ● | - |
| Angola | ● | ● | - | - | - |
| Argentina | ● | ● | ● | ● | - |
| Armenia | ○ | - | - | - | - |
| Aruba | ● | ● | ● | ● | - |
| Australia | ● | ● | ● | ○ | - |
| Austria | ● | ● | ● | ● | - |
| Azerbaijan | ● | - | - | - | - |
| Bahrain | ● | ● | - | ● | - |
| Bangladesh | ● | ● | - | ● | - |
| Barbados | ● | - | - | - | - |
| Belarus | ● | - | - | - | - |
| Belgium | ● | ● | ● | ● | - |
| Belize | ● | - | - | - | - |
| Bolivia (Plurinational State of) | ● | - | ● | - | - |
| Bonaire | ● | - | - | - | - |
| Bosnia and Herzegovina | ○ | - | - | - | - |
| Botswana | - | ● | - | ● | - |
| Brazil | ● | ● | ● | ● | - |
| Brunei Darussalam | ● | ● | - | - | - |
| Bulgaria | ● | - | - | ●* | - |
| Burkina Faso | ● | - | - | - | - |
| Cabo Verde | ● | - | - | - | - |
| Cambodia | ● | - | - | - | ● |
| Cameroon | ● | ● | - | - | - |
| Canada | ● | ● | ● | ● | - |
| Cayman Islands | ● | - | - | - | - |
| Central African Republic | ● | - | - | - | - |
| Chile | ● | ● | ● | - | - |
| China | ● | ● | ● | ○ | - |
| Colombia | ● | - | ● | - | - |
| Comoros | ● | ● | - | - | - |
| Congo | ● | - | - | - | - |
| Costa Rica | ● | ● | ● | - | - |
| Croatia | ● | ● | - | - | ○* |
| Cuba | ● | ● | - | - | - |
| Curaçao | ● | - | ● | - | ●* |
| Cyprus | ● | ● | - | - | ● |
| Czechia | ● | ● | - | ● | - |
| Côte d'Ivoire | ● | ● | - | - | - |
| Democratic Republic of the Congo | ● | ● | - | ● | - |
| Denmark | ● | ● | ● | ● | - |
| Dominica | ● | - | - | - | - |
| Dominican Republic | ● | - | ● | - | - |
| Ecuador | ● | ● | ● | - | - |
| Egypt | ● | - | - | - | - |
| Equatorial Guinea | ● | ● | - | - | - |
| Estonia | ● | ● | ○ | - | ○ |
| Eswatini | - | ● | - | - | - |
| Ethiopia | ○ | - | - | - | - |
| Faroe Islands | ● | - | ● | - | - |
| Fiji | - | - | - | ●* | - |
| Finland | ● | ● | ● | ● | - |
| France | ● | ● | ● | ● | - |
| French Guiana | ● | ● | ● | - | - |
| French Polynesia | ● | - | ● | - | - |
| Gabon | ● | ○ | - | - | - |
| Gambia | ● | - | - | ● | - |
| Georgia | ● | ○* | - | ●* | - |
| Germany | ● | ● | ● | ● | - |
| Ghana | ● | ● | - | ● | - |
| Gibraltar | ● | - | - | - | - |
| Greece | ● | ● | - | ● | - |
| Grenada | ● | - | - | - | - |
| Guadeloupe | ● | ● | - | - | ●* |
| Guam | ● | - | - | ●* | - |
| Guinea | ● | ● | - | - | - |
| Guinea-Bissau | ● | ● | - | - | - |
| Guyana | - | - | ● | - | - |
| Haiti | ● | - | ● | - | - |
| Hungary | ● | ○ | - | - | ○ |
| Iceland | ● | - | - | - | - |
| India | ● | ● | ● | ● | - |
| Indonesia | ● | ● | - | ● | - |
| Iran (Islamic Republic of) | ● | ● | - | ●* | - |
| Iraq | ● | - | - | - | - |
| Ireland | ● | ● | ● | ● | - |

| Country/Territory/Area | Alpha | Beta | Gamma | Delta | Delta+ |
|---|---|---|---|---|---|
| Israel | ● | ● | ● | ● | - |
| Italy | ● | ● | ● | ● | - |
| Jamaica | ● | - | - | - | - |
| Japan | ● | ● | ● | ● | - |
| Jordan | ● | ● | ● | ● | - |
| Kazakhstan | ○ | ○ | - | - | - |
| Kenya | ● | ● | - | ● | - |
| Kosovo[1] | ● | ○* | - | - | - |
| Kuwait | ● | - | - | - | - |
| Kyrgyzstan | ● | ● | - | - | ● |
| Lao People's Democratic Republic | ● | - | - | - | - |
| Latvia | ● | ● | ● | - | ○ |
| Lebanon | ● | - | - | - | - |
| Lesotho | - | ● | - | - | - |
| Liberia | ● | - | - | - | - |
| Libya | ● | ● | - | - | - |
| Liechtenstein | ● | - | - | - | - |
| Lithuania | ● | ● | ● | - | - |
| Luxembourg | ● | ● | ● | ● | - |
| Madagascar | - | ● | - | - | - |
| Malawi | ● | ● | - | - | ●* |
| Malaysia | ● | ● | - | ● | - |
| Malta | ● | ○ | ● | ○* | - |
| Martinique | ● | ● | - | - | - |
| Mauritania | ● | ● | - | ● | - |
| Mauritius | ○ | ● | - | - | - |
| Mayotte | ● | ● | - | - | - |
| Mexico | ● | ● | ● | ● | - |
| Monaco | ● | ○ | - | - | - |
| Montenegro | ● | - | - | - | - |
| Morocco | ● | - | - | ●* | - |
| Mozambique | - | ● | - | - | - |
| Namibia | - | ● | - | - | - |
| Nepal | ● | - | - | ● | - |
| Netherlands | ● | ● | ● | ● | - |
| New Caledonia | ● | - | - | - | - |
| New Zealand | ● | ● | ○ | ○ | - |
| Niger | ● | - | - | - | - |
| Nigeria | ● | - | - | ● | - |
| North Macedonia | ● | ● | - | - | ●* |
| Norway | ● | ● | ● | ● | - |
| Occupied Palestinian Territory | ● | ● | - | - | - |
| Oman | ● | - | - | - | - |
| Pakistan | ● | ● | ● | ●* | - |
| Panama | ● | ● | ● | - | ● |
| Paraguay | - | - | ● | - | - |
| Peru | ● | - | ● | - | - |
| Philippines | ● | ● | ● | ● | - |
| Poland | ● | ○ | ● | ● | - |
| Portugal | ● | ● | ● | ○ | - |
| Puerto Rico | ● | ● | ● | ● | - |
| Qatar | ● | ● | - | ● | - |
| Republic of Korea | ● | ● | ● | ○ | - |
| Republic of Moldova | ○ | - | - | - | - |
| Romania | ● | ● | ● | ● | - |
| Russian Federation | ● | ● | - | ● | - |
| Rwanda | ● | ○ | - | - | - |
| Réunion | ● | ● | ● | ○ | - |
| Saba | - | - | - | ●* | - |
| Saint Barthélemy | ● | - | - | - | - |
| Saint Lucia | ● | - | - | - | - |
| Saint Martin | ● | ● | - | - | - |
| Sao Tome and Principe | ● | - | - | - | - |
| Saudi Arabia | ● | ● | - | ●* | - |
| Senegal | ● | ● | - | - | - |
| Serbia | ● | - | - | - | - |
| Seychelles | - | ● | - | - | - |
| Singapore | ● | ● | ● | ● | - |
| Sint Maarten | ● | ● | - | ●* | - |
| Slovakia | ● | ● | - | ●* | - |
| Slovenia | ● | ● | ● | ● | - |
| South Africa | ● | ● | - | ● | - |
| Spain | ● | ● | ● | ● | - |
| Sri Lanka | ● | ● | - | ○ | - |
| Suriname | ● | ● | ● | - | - |
| Sweden | ● | ● | ● | ● | - |
| Switzerland | ● | ● | ○ | ● | - |
| Thailand | ● | ● | ● | ● | - |
| Togo | ● | ● | - | - | - |
| Trinidad and Tobago | ● | - | ● | - | - |
| Tunisia | ● | ● | - | - | - |
| Turkey | ● | ● | ● | ● | - |

| Country/Territory/Area | Alpha | Beta | Gamma | Delta | Delta+ |
|---|---|---|---|---|---|
| Turks and Caicos Islands | ● | - | - | - | - |
| Uganda | ● | ● | - | ● | - |
| Ukraine | ● | ○ | - | - | - |
| United Arab Emirates | ● | ● | ● | - | - |
| United Kingdom | ● | ● | ● | ● | - |
| United Republic of Tanzania | - | ● | - | - | - |

| Country/Territory/Area | Alpha | Beta | Gamma | Delta | Delta+ |
|---|---|---|---|---|---|
| United States of America | ● | ● | ● | ● | - |
| Uruguay | ● | - | ● | - | - |
| Uzbekistan | ● | ● | - | - | - |
| Venezuela (Bolivarian Republic of) | ●* | - | ● | - | - |
| Viet Nam | ● | ● | - | ● | - |

| Country/Territory/Area | Alpha | Beta | Gamma | Delta | Delta+ |
|---|---|---|---|---|---|
| Wallis and Futuna | ● | - | - | - | - |
| Zambia | - | ● | - | ● | - |
| Zimbabwe | - | ○ | - | ● | - |

**Newly reported in this update.*
*"Delta+" reflects countries/territories/areas reporting detection of B.1.617 without further specification of lineage at this time. These will be reallocated as further details become available.*
*"●" indicates that information for this variant was received by WHO from official sources.*
*"○" indicates that information for this variant was received by WHO from unofficial sources and will be reviewed as more information become available.*
***Includes countries/territories/areas reporting the detection of VOCs among travelers (e.g., imported cases detected at points of entry), or local cases (detected in the community). Efforts are ongoing to differentiate these in future reports. See also Annex 3: Data, table and figure notes.*

## Annex 3. Data, table and figure notes

Data presented are based on official laboratory-confirmed COVID-19 case 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 incidence, and variable delays to reflecting these data at 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. Due to public health authorities conducting data reconciliation exercises which remove large numbers of cases or deaths from their total counts, negative numbers may be displayed in the new cases/deaths columns as appropriate. When additional details become available that allow the subtractions to be suitably apportioned to previous days, graphics will be updated accordingly.

A record of historic data adjustment made is available upon request by emailing epi-data-support@who.int. Please specify the country(ies) of interest, time period(s), 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.

Global totals include 758 cases and 13 deaths reported from international conveyances.

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.

[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, number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes.

[i] Excludes countries, territories, and areas that have never reported a confirmed COVID-19 case (Annex 1), or the detection of a variant of concern (Annex 2).

[ii] Transmission classification is based on a process of country/territory/area self-reporting. Classifications are reviewed on a weekly basis and may be revised as new information becomes available. Differing degrees of transmission may be present within countries/territories/areas. For further information, please see: Considerations for implementing and adjusting public health and social measures in the context of COVID-19.

[iii] "Territories" include territories, areas, overseas dependencies and other jurisdictions of similar status.