COVID-19 Weekly Epidemiological Update

Edition 64, published 2 November 2021

In this edition:

Global overview

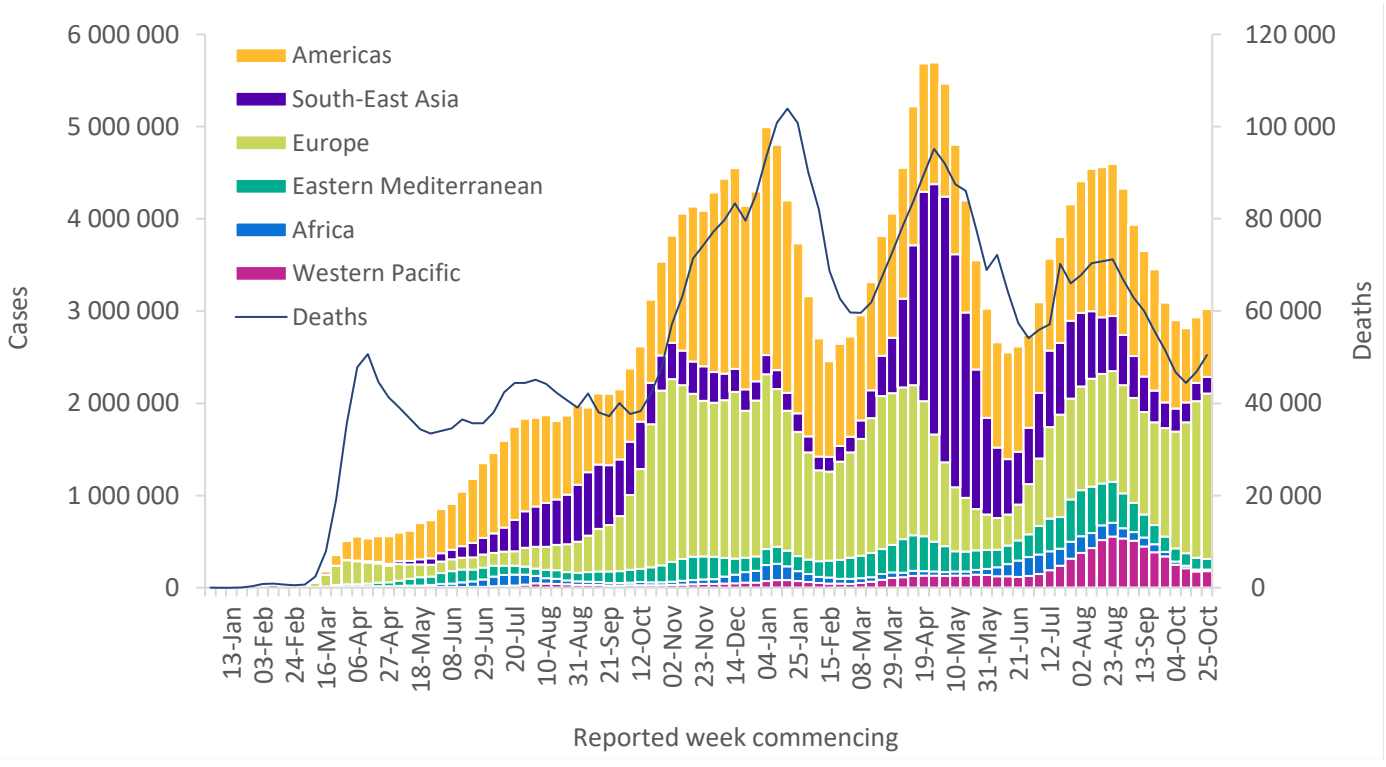
Data as of 31 October 2021

During the week 25 to 31 October 2021, a slight upward trend (3% increase) in new weekly cases was observed, with just over 3 million new cases reported (Figure 1). Apart from the WHO European Region, which reported a 6% increase in new weekly cases as compared to the previous week, other regions reported declines or stable trends (Table 1). The largest decreases were reported from the Eastern Mediterranean Region (12%), followed by the South-East Asia and African Regions (both 9%).

New weekly deaths increased by 8% as compared with the previous week, with over 50 000 new fatalities. The observed rise in new weekly deaths has been mainly driven by the South-East Asia Region, which reported the largest increase (50%), followed by the European Region (12%) and the Western Pacific Region (10%).

As of 31 October, over 246 million confirmed cases and nearly 5 million deaths have been reported.

Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 31 October 2021**



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

The regions reporting the highest weekly case incidence rates per 100 000 population were the European Region (192.3 new cases per 100 000 population) and the Region of the Americas (71.8 new cases per 100 000 population); the same two regions reported the highest weekly incidence in deaths, of 2.6 and 1.5 per 100 000 population, respectively.

The highest numbers of new cases were reported from the United States of America (528 455 new cases; 7% increase), the United Kingdom (285 028 new cases; 14% decrease), the Russian Federation (272 147 new cases; 9% increase), Turkey (182 027 new cases; 8% decrease), and Ukraine (152 897 new cases; 14% increase).

Table 1. Newly reported and cumulative COVID-19 cases and deaths, by WHO Region, as of 31 October 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 (%)
Europe	1 794 518 (59%)	6%	76 784 507 (31%)	24 243 (48%)	12%	1 425 509 (29%)
Americas	734 610 (24%)	3%	93 626 813 (38%)	15 283 (30%)	-4%	2 294 397 (46%)
South-East Asia	180 759 (6%)	-9%	43 963 132 (18%)	4 966 (10%)	50%	692 879 (14%)
Western Pacific	178 088 (6%)	2%	9 421 344 (4%)	2 936 (6%)	10%	129 627 (3%)
Eastern Mediterranean	113 790 (4%)	-12%	16 350 052 (7%)	2 320 (5%)	-4%	301 077 (6%)
Africa	19 869 (1%)	-9%	6 151 145 (2%)	729 (1%)	-13%	150 611 (3%)
Global	**3 021 634 (100%)**	**3%**	**246 297 757 (100%)**	**50 477 (100%)**	**8%**	**4 994 113 (100%)**

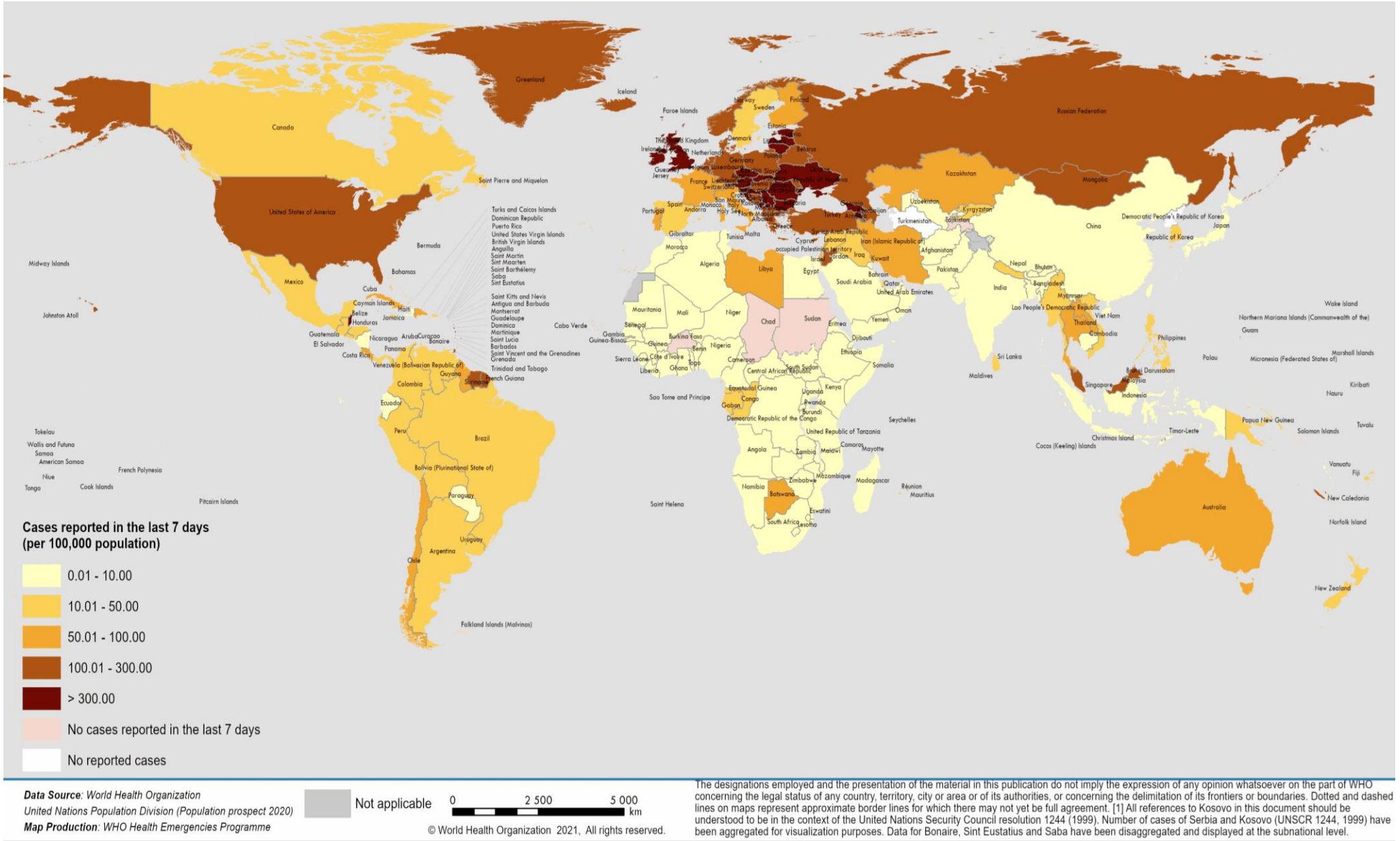
**Percent change in the number of newly confirmed cases/deaths in past seven days, compared to seven days prior*

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

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

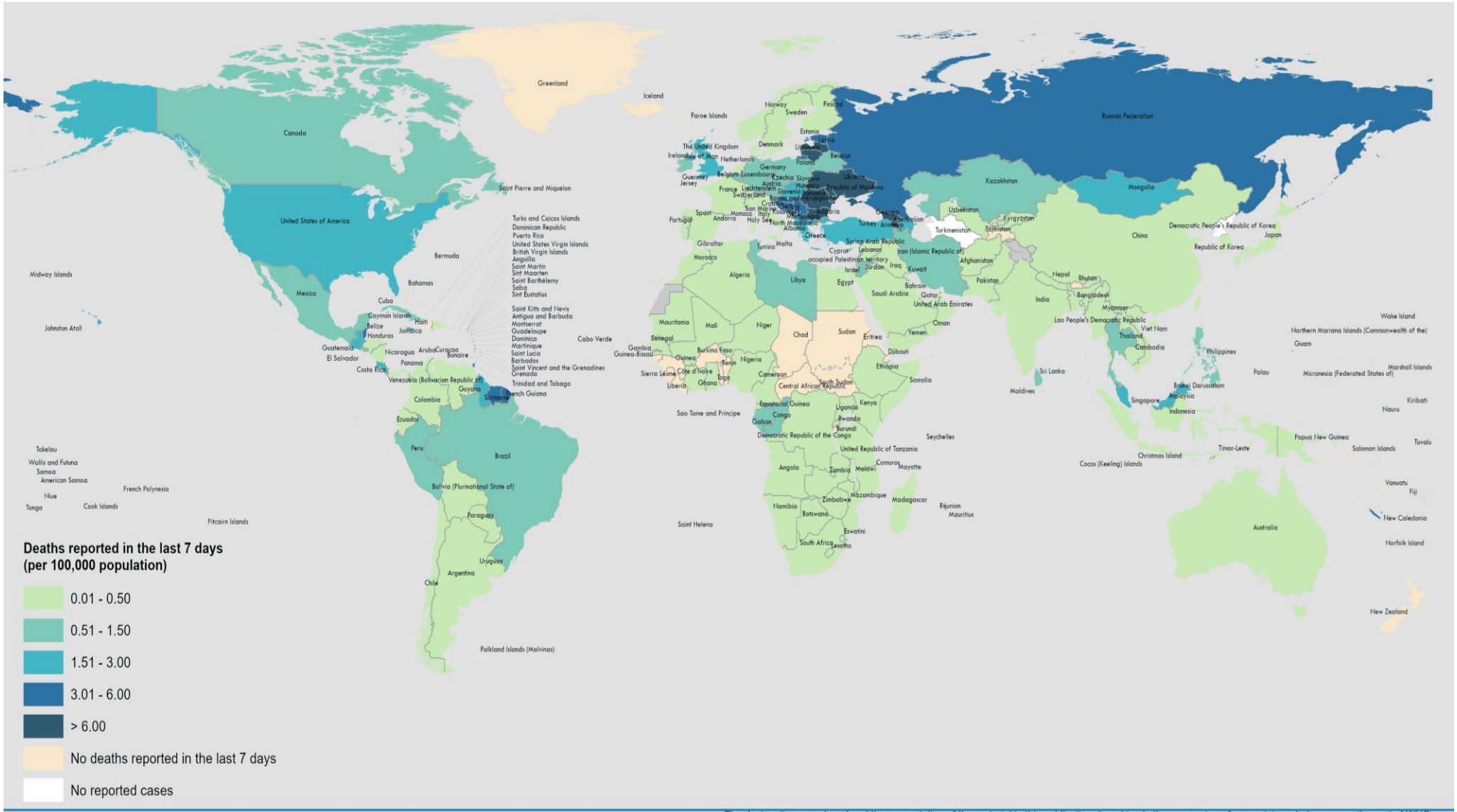
- WHO COVID-19 Dashboard
- WHO COVID-19 Weekly Operational Update and previous editions of the Weekly Epidemiological Update

Figure 2. COVID-19 cases per 100 000 population reported by countries, territories and areas, 25-31 October 2021**



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

Figure 3. COVID-19 deaths per 100 000 population reported by countries, territories and areas, 25-31 October 2021**



***Data Source**: World Health Organization*
United Nations Population Division (Population prospect 2020)
***Map Production**: WHO Health Emergencies Programme*

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. [1] All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). Number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes. Data for Bonaire, Sint Eustatius and Saba have been disaggregated and displayed at the subnational level.

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

Special Focus: Update on SARS-CoV-2 Variants of Interest and Variants of Concern

WHO, in collaboration with national authorities, institutions and researchers, routinely assesses if variants of SARS-CoV-2 alter transmission or disease characteristics, or impact effectiveness of vaccines, therapeutics, diagnostics or public health and social measures (PHSM) applied by national authorities to control disease spread. "Signals" of potential Variants of Concern (VOCs) or Variants of Interest (VOIs) are detected and assessed based on the risk posed to global public health. As evidence becomes available, classification for VOIs or VOCs will be revised to reflect the continuous evolution of circulating variants and their changing epidemiology. Criteria for variant classification, and the current lists of VOCs, VOIs and other Variants Under Monitoring, are available on the WHO Tracking SARS-Cov-2 variants website. National authorities may choose to designate other variants of local interest/concern and are encouraged to investigate and report on impacts of these variants.

Geographic spread and prevalence of VOCs

The current global genetic epidemiology of SARS-CoV-2 is characterized by a predominance of the Delta variant, with declining prevalence of other variants among sequences submitted to publicly available datasets or detections reported to WHO (Figure 4, Annex 2). Delta has outcompeted other variants, including other VOCs, in most countries. Of 842 510 sequences uploaded to GISAID with specimens collected in the last 60 days[a], 838 398 (99.5%) were Delta, 1545 (0.2%) Gamma, 584 (0.1%) Alpha, 43 (<0.1%) Beta, and 0.2% comprised other circulating variants (including VOIs Mu and Lambda). Sub-regional and country-level variation continues to be observed; most notably within some South American countries, where the progression of the Delta variant has been more gradual, and other variants (e.g., Gamma, Lambda, Mu) still contribute a large proportion of reported sequences. Moreover, global VOCs distribution should be interpreted with due consideration of surveillance limitations, including differences in sequencing capacities, sampling strategies between countries and delays in reporting.

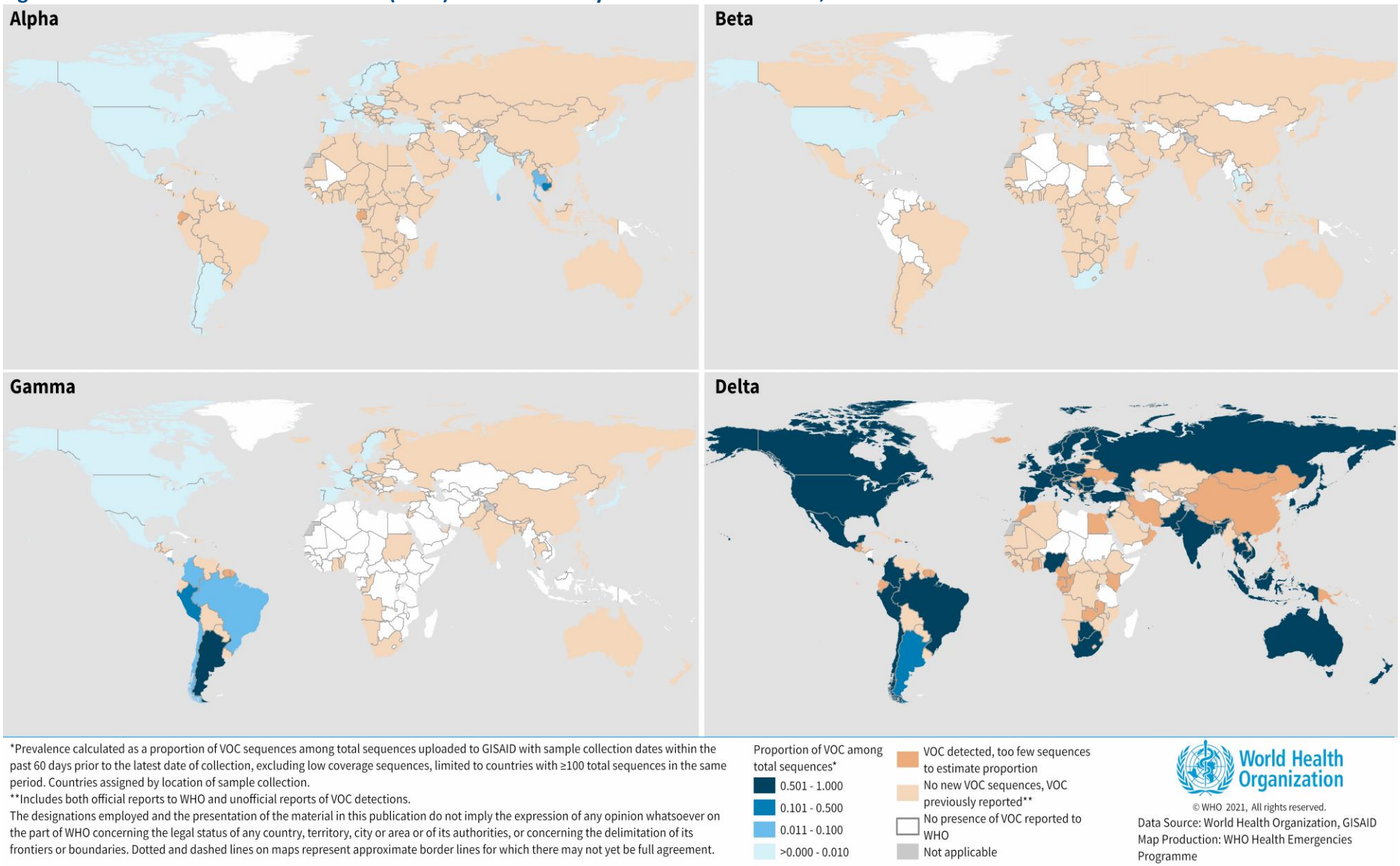
Phenotypic characteristics

Available evidence on the phenotypic impacts of VOCs is summarized in Table 2, as well as in previous editions of the COVID-19 Weekly Epidemiological Update. Since the last detailed update on 19 October, there are several new publications on the phenotypic characteristics of VOCs**.**

A retrospective cohort study (peer-reviewed publication) conducted in Canada assessed the virulence of VOCs compared with non-VOC SARS-CoV-2 variants, as measured by risk of hospitalization, intensive care unit (ICU) admission and death.[1] The study population included 212 326 cases tested between 7 February 2021 and 25 June 2021. Compared with non-VOC variants, the pooled adjusted odds ratio associated with Alpha, Beta and Gamma variants was 1.52 (95% CI 1.42-1.63) for hospitalization, 1.89 (1.67-2.17) for ICU admission and 1.51 (1.30-1.78) for death. Increased risk with the Delta variant was more pronounced at 2.08 (1.78-2.40) for hospitalization, 3.35 (2.60-4.31) for ICU admission and 2.33 (1.54-3.31) for death, compared with non-VOC variants. In an additional analysis that excluded non-VOC cases, there was a significantly increased risk with Delta as compared with the pooled risk of Alpha, Beta and Gamma for hospitalization (adjusted OR 1.45, 95% CI 1.27–1.64), ICU admission (aOR 2.01, 1.60–2.47) and death (aOR 1.69, 1.16–2.35). Authors underlined that the study population infected with VOCs was, on average, younger and less likely to have comorbid conditions than non-VOC cases, but nonetheless had higher risks of hospitalization, ICU admission and deaths.

[a] Includes sequences submitted to GISAID with sample collected dates from 30 August to 29 October 2021 (last reported sample at the time of data extraction), excluding low coverage sequences.

Figure 4. Prevalence of Variants of Concern (VOCs) in the last 60 days and historic detections, data as of 2 November 2021



Prevalence data based on sequences reported to GISAID, excluding low coverage sequences. See also Annex 2 for reported VOC detections by country/territory/area.

A peer-reviewed matched case-control study conducted in the United Kingdom estimated the odds of household transmission (≥2 cases within 14 days) for Delta variant index cases as compared with Alpha cases.[2] The study provides supporting evidence of increased transmissibility of the Delta variant, suggesting that it is more strongly associated with onward transmission within household settings as compared to the Alpha variant. During the study, cases were identified using national surveillance data between March and June 2021, matching controls based on geographical location of residence, time period of testing and property type. In total, 5976 index cases from clusters in households were sequenced and matched to 11 952 sporadic index cases (single case within a household). Of these, 43% (n=2586) of cases in household clusters were confirmed Delta variant cases as compared to 40% (n= 4824) of sporadic cases. A 70% increase in the odds (aOR 1.70, 95% CI 1.48-1.95, p <0.001) of household transmission was observed for infection with the Delta variant as compared to the Alpha variant, after adjusting for the index cases' vaccination status, sex, ethnicity, index of multiple deprivation, age group and number of household contacts.

Table 2: Summary of phenotypic impacts* of Variants of Concern

WHO label	Alpha	Beta	Gamma	Delta
Transmissibility	Increased transmissibility[3]	Increased transmissibility[4,5]	Increased transmissibility[5,6]	Increased transmissibility [5,7,8]
Disease severity	Possible increased risk of hospitalization[9,10], possible increased risk of severe disease and death[11,12]	Possible increased risk of hospitalization[10], possible increased in-hospital mortality[13]	Possible increased risk of hospitalization[10], possible increased risk of severe disease[14]	Possible increased risk of hospitalization[15,16]
Risk of reinfection	Neutralizing activity retained[17], risk of reinfection remains similar[18]	Reduction in neutralizing activity reported; T cell response elicited by D614G virus remains effective[19]	Moderate reduction in neutralizing activity reported[20]	Reduction in neutralizing activity reported[21–23]
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[24]	No impact on RT-PCR or Ag RDTs observed[23]	None reported to date	No impact on RT-PCR or Ag RDTs observed[25]

**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. Ag RDT = antigen-based rapid diagnostic test.*

Table 3 summarises the impact of variants on product specific vaccine efficacy/effectiveness (VE) and quantifies the reduction in VE in the setting of variants compared to non-VOC settings. Since the 19 October update, five notable new studies have provided evidence of COVID-19 vaccine performance against VOCs and VOIs.

A large test-negative case-control study from Canada (not yet peer-reviewed) evaluated the effectiveness of three vaccines, including heterologous regimens, at preventing infections and hospitalizations due to Alpha, Gamma, and Delta variants for residents 18 years and older in British Columbia and Quebec provinces.[26] For brevity, results are presented here for British Columbia, as the results from Quebec were similar, except where indicated. VE results are presented for fully vaccinated individuals. VE against infection due to Alpha was 74% (95% CI: 29-90%) for AstraZeneca-Vaxzevria, 95% (85-98%) for Moderna-mRNA-1273, 96% (93-98%) for Pfizer BioNTech-Comirnaty, 74% (29-90%) for heterologous regimes of AstraZeneca-Vaxzevria followed by an mRNA vaccine, and 96% (93-98%) for heterologous mRNA vaccinations. VE against infection due to Gamma was >90% for all vaccines, including both heterologous regimens. Pfizer BioNTech-Comirnaty effectiveness against hospitalization due to Alpha and Gamma was 96% (83-99%) and 95% (83-99%), respectively. VE against infection due to Delta was greater than 90% for all vaccines/regimens, except for homologous AstraZeneca vaccination (VE 70%, 66-73%). All vaccines/regimens showed >90% VE against hospitalization due to Delta after ≥14 days following a second dose.

To assess waning effectiveness, the same study measured VE against Delta infections and hospitalizations at different time intervals following complete vaccination. VE of both homologous mRNA vaccine regimens against infection peaked above 90% at 2-3 weeks after a second dose, and declined to 80% at 6 months. VE of heterologous mRNA vaccination against infection also peaked 97% (92-99%) at 2-3 weeks, and declined to 88% (82-91%) at 4 months. Similarly, VE of two AstraZeneca-Vaxzevria doses against infection peaked at 77% at 2-3 weeks, declining to 65% at 4+ months. All vaccines/regimens maintained high VE against hospitalization: Pfizer BioNTech-Comirnaty was 98% (91-99%) effective at 7+ months. Moderna-mRNA-1273 was 95% effective up to 4 months, declining slightly to 84% (63-93%) at 5 months; though data at this final time point was less robust and results from Quebec show a corresponding VE of >90% at 4+ months. AstraZeneca-Vaxzevria was 92% (81-97%) effective at 4+ months. Finally, VE for heterologous mRNA vaccination maintained a high VE of 98% (85-100%) at 4 months. The findings above underscore the continued effectiveness of the vaccines against severe disease associated with the Delta variant.

Two recent peer-reviewed studies from the United States of America assessed VE during periods of high Delta circulation. The first, a test-negative case-control study found that two doses of Pfizer BioNTech-Comirnaty was 93% (83%–97%) effective against hospitalization among children aged <18 years, with a maximum follow-up time of 14 weeks.[27] The second, a retrospective cohort study conducted during an outbreak of Delta among incarcerated men, found VE of two doses of Moderna-mRNA-1273 against infection and symptomatic disease to be 56.6% (42.0-67.5%) and 84.2% (56.4-94.3%), respectively, with a maximum follow-up time of ~27 weeks.[28] Of note, force of infection in closed facilities outbreaks is likely greater, and may lead to lower VE estimates than in the general population.

A fourth study (not yet peer-reviewed) used a test-negative case-control design to assess the effectiveness of Janssen-Ad26.COV2.S among adults in Brazil during a period when Gamma was predominant.[29] Janssen-Ad26.COV2.S was found to be 50.9% (35.5-63.0%), 72.9% (35.1-91.1%), and 90.5% (31.5-99.6%) effective in preventing symptomatic COVID-19, hospitalization, and death, respectively, 28 days or more following immunisation, with a maximum follow-up time of ~10 weeks.

Finally, a national population-based cohort study from Colombia (not yet peer reviewed) evaluated VE against hospitalization and death among persons 60 years and older during a period when the Mu variant was predominant.[30] AstraZeneca-Vaxzevria, Janssen-Ad26.COV2.S, Pfizer BioNTech-Comirnaty, and Sinovac-CoronaVac were 75.4% (48.2-88.3%), 80% (19.9-95.0%), 90.3% (87.1-92.7%), and 67.2% (63.7-70.4%) effective at preventing hospitalization, respectively. The same vaccines were 96.3% (88.4-98.8%), 75.0% (0.0-93.8%), 98.5% (97.8-98.9%), and 77.1% (75.5-78.6%) effective at preventing death, respectively. Maximum possible follow-up time since complete vaccination ranged from 4-11 weeks depending on the vaccine.

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 public health and social measures in the context of COVID-19

Table 3. Summary of vaccine performance against Variants of Concern

	WHO Emergency Use Listing (EUL) Qualified Vaccines							Vaccines without current WHO EUL			
	AstraZeneca-Vaxzevria/SII - Covishield	Beijing CNBG-BBIBP-CorV	Janssen-Ad26.COV 2.S	Moderna-mRNA-1273	Moderna-mRNA-1273/ Pfizer BioN BioNTech-Comirnaty	Pfizer BioNTech-Comirnaty	Sinovac-CoronaVac	Anhui ZL-Recombinant	Bharat-Covaxin	Gamaleya-Sputnik V	Novavax-Covavax
Alpha[31,32]											
Summary of VE	Protection retained against all outcomes										
- Severe disease	↔$_2$	-	-	↔$_2$	↔$_1$	↔$_6$	-	-	-	-	-
- Symptomatic disease	↔ to ↓$_5$	-	-	↔$_1$	↔$_1$	↔$_4$	-	-	-	-	↓$_1$
- Infection	↔ to ↓$_4$	-		↔$_3$	-	↔$_3$	-	-	-	-	-
Neutralization	↔ to ↓$_7$	↔$_1$	↔$_4$	↔ to ↓$_{13}$	↔ to ↓$_2$	↔ to ↓$_{40}$	↔ to ↓↓$_6$	↔$_2$	↔$_2$	↔$_3$	↓$_1$
Beta[33–36]											
Summary of VE	Protection retained against severe disease; reduced protection against symptomatic disease; limited evidence										
- Severe disease	-	-	↔$_1$	↔$_1$	-	↔$_3$	-	-	-	-	-
- Symptomatic disease	↔ to ↓↓↓$_2$	-	↔$_1$	↔$_1$	-	↔$_2$	-	-	-	-	↓↓↓$_1$
- Infection	-	-	-	↔$_1$	-	↓$_1$	-	-	-	-	-
Neutralization	↓ to ↓↓$_7$	↔ to ↓$_2$	↓ to ↓↓$_6$	↓ to ↓↓$_{17}$	↓↓ to ↓↓↓$_2$	↓ to ↓↓$_{41}$	↓ to ↓↓↓$_6$	↔ to ↓$_3$	↓$_2$	↓ to ↓↓$_4$	↓↓↓$_1$
Gamma											
Summary of VE	Unclear impact; very limited evidence										
- Severe disease	↔$_1$	-	-	↔$_1$	-	↔$_2$	-	-	-	-	-
- Symptomatic disease	↔$_1$	-	-	↔$_1$	-	↔$_1$	-	-	-	-	-
- Infection	↔$_1$	-	-	↔$_1$	-	↔$_1$	↔$_1$	-	-	-	-
Neutralization	↔ to ↓$_3$	-	↓$_3$	↓$_9$	-	↔ to ↓$_{25}$	↔ to ↓$_4$	↔$_1$	-	↓$_2$	-
Delta[37]											
Summary of VE	Protection retained against severe disease; possible reduced protection against symptomatic disease and infection; limited evidence										
- Severe disease	↔$_3$	-	-	↔$_3$	-	↔$_6$	-	-	-	-	-
- Symptomatic disease	↓ to ↓↓$_5$	-	-	↔$_1$	-	↔ to ↓$_4$	-	-	↓$_1$	-	-
- Infection	↔ to ↓$_4$	-	↓↓↓$_1$	↔$_3$	-	↔ to ↓$_3$	-	-	-	-	-
Neutralization	↓$_7$	-	↔ to ↓↓$_5$	↓$_8$	↓ to ↓↓$_2$	↔ to ↓$_{20}$	↓ to ↓↓↓$_4$	↔ to ↓$_2$	↔ to ↓$_3$	↓$_2$	-

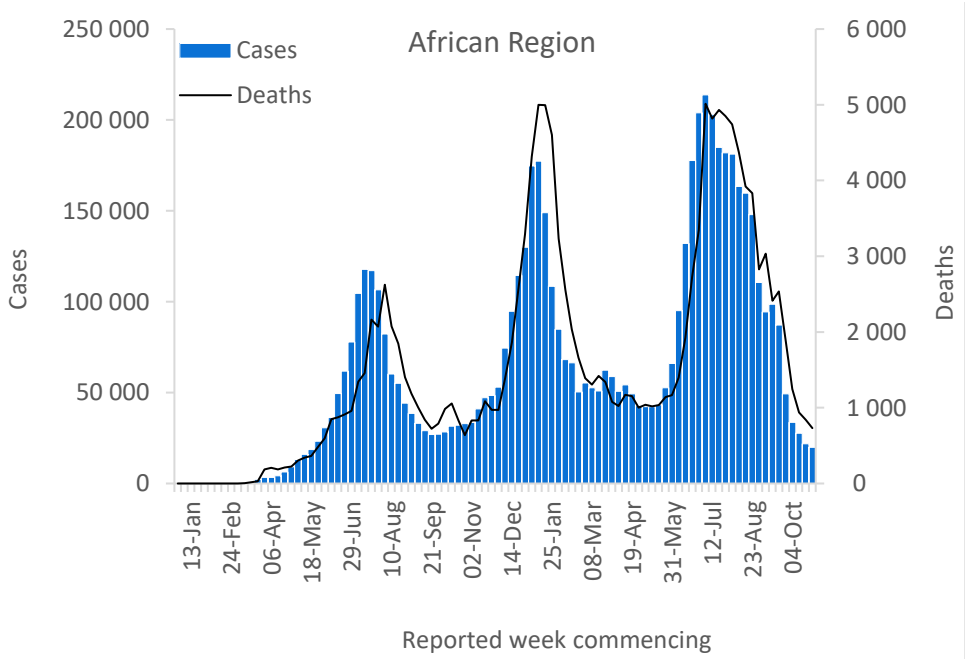
"VE" refers to vaccine effectiveness or vaccine efficacy. **"Summary of VE":** indicates the general conclusions but only for the vaccines evaluated against the specific variants. **Arrows** generalize the magnitude of reduction in VE or neutralization: "↔" <10% reduction in VE, or VE >90% with no comparator, or that there was a <2-fold reduction in neutralization; "↓" 10 to <20% reduction in VE, or 2 to <5-fold reduction in neutralization; "↓↓" 20 to <30% reduction in VE, or 5 to <10-fold reduction in neutralization; "↓↓↓" ≥30% reduction in VE, or ≥10-fold reduction in neutralization. When more than one neutralization study is available, the interquartile range (25th and 75th percentiles) of fold-reductions across all studies for specific vaccine/variant was used. "Moderna-mRNA-1273/Pfizer BioNTech-Comirnaty" indicates that both vaccines were evaluated together in study. **Subscripts** denote the number of studies informing this table, which may be found on the VIEW-hub Resource Library. **Superscripts** donate article references from randomized controlled trials (RCTs) informing this table.

WHO regional overviews Epidemiological week 25-31 October 2021

African Region

Declining trends observed in the Region since mid-July continued this week with over 19 000 new cases and over 700 new deaths reported, decreases of 9% and 13%, respectively, as compared to the previous week. Nevertheless, 17/49 countries (34%) reported increases of over 10% as compared with the previous week, with the largest increases observed in Rwanda (100%), Comoros (94%) and Eritrea (68%). The highest numbers of new cases were reported from Ethiopia (3313 new cases; 2.9 new cases per 100 000 population; a 14% increase), South Africa (2554 new cases; 4.3 new cases per 100 000; a 19% decrease), and Cameroon (2210 new cases; 8.3 new cases per 100 000; a 17% increase).

The highest numbers of new deaths were reported from South Africa (249 new deaths; <1 new death per 100 000 population; a 24% decrease), Ethiopia (118 new deaths; <1 new death per 100 000; a 13% decrease), and Cameroon (86 new deaths; <1 new death per 100 000; a 72% increase).

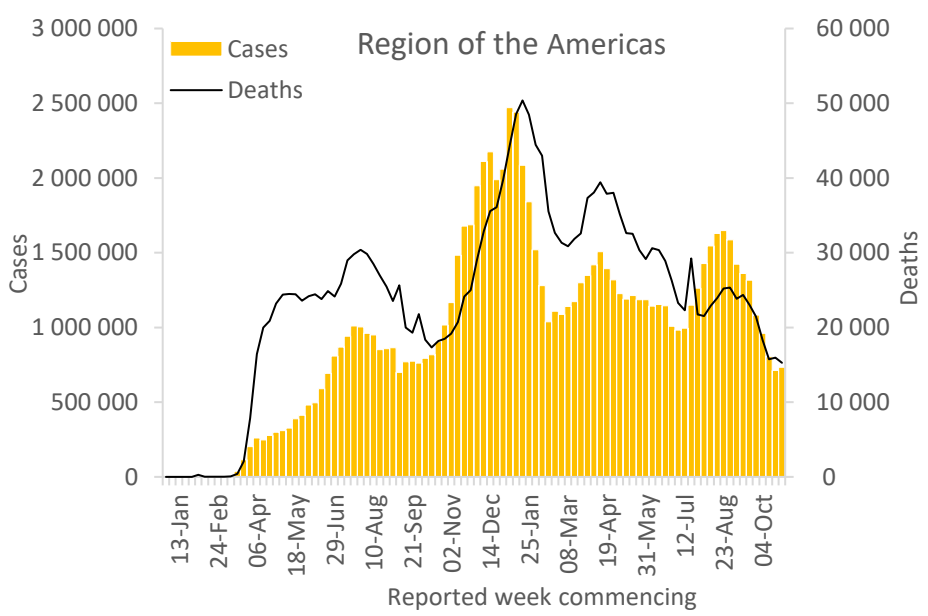


Updates from the African Region

Region of the Americas

Declining trends in the Region of the Americas have slowed, with over 734 000 new cases (similar to the previous week) and over 15 000 new deaths (similar to the previous week) reported. Eleven countries in the Region (19%) reported increases in new cases in the past week, with the largest increases observed in the Cayman Islands (145%), Uruguay (38%) and Puerto Rico (21%). The highest numbers of new cases were reported from the United States of America (528 455 new cases; 159.7 new cases per 100 000; a 7% increase), Brazil (81 558 new cases; 38.4 new cases per 100 000; similar to the figures of the previous week), and Mexico (18 880 new cases; 14.6 new cases per 100 000; a 6% decrease).

The highest numbers of new deaths were reported from the United States of America (9550 new deaths; 2.9 new deaths per 100 000; a 6% decrease), Brazil (2323 new deaths; 1.1 new deaths per 100 000; a 6% decrease), and Mexico (1539 new deaths; 1.2 new deaths per 100 000; a 40% increase).

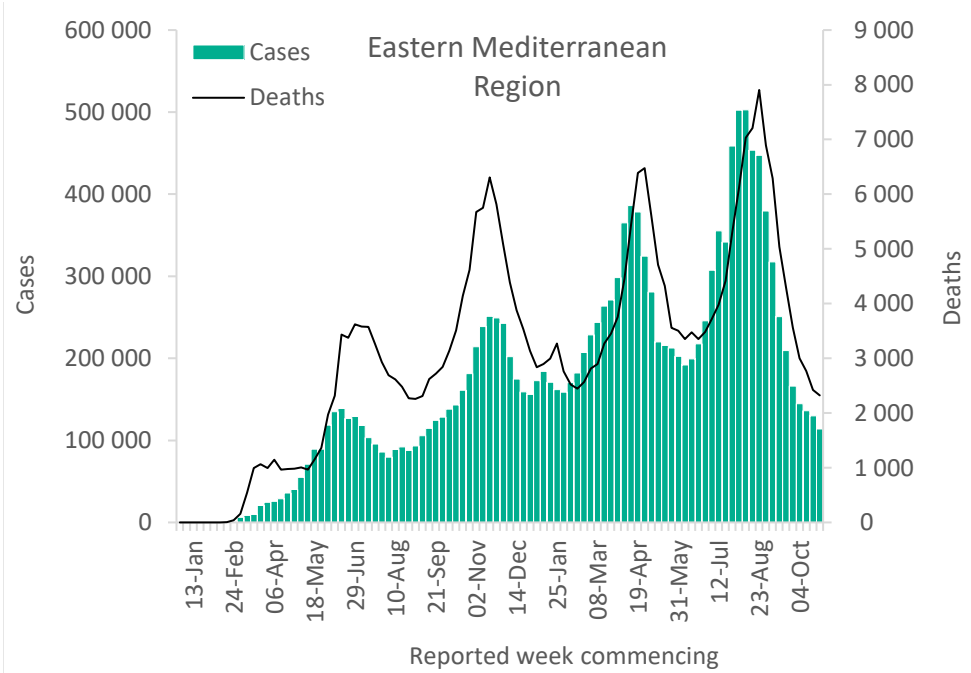


Updates from the Region of the Americas

Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 113 000 new cases, a 12% increase; and over 2300 new deaths, similar to the numbers reported in the previous week. The number of new weekly cases has decreased week on week for almost two months. The highest numbers of new cases were reported from the Islamic Republic of Iran (64 541 new cases; 76.8 new cases per 100 000; an 18% decrease), Jordan (11 060 new cases; 108.4 new cases per 100 000; a 15% increase), and Iraq (9175 new cases; 22.8 new cases per 100 000; a 19% decrease). This week, five of 22 countries in the Region reported increases of over 10% in weekly case incidence.

The highest numbers of new deaths were reported from the Islamic Republic of Iran (1074 new deaths; 1.3 new deaths per 100 000; a 9% decrease), Egypt (350 new deaths; <1 new deaths per 100 000; an 11% increase), and Iraq (201 new deaths; <1 new deaths per 100 000; similar to the numbers of the previous week).

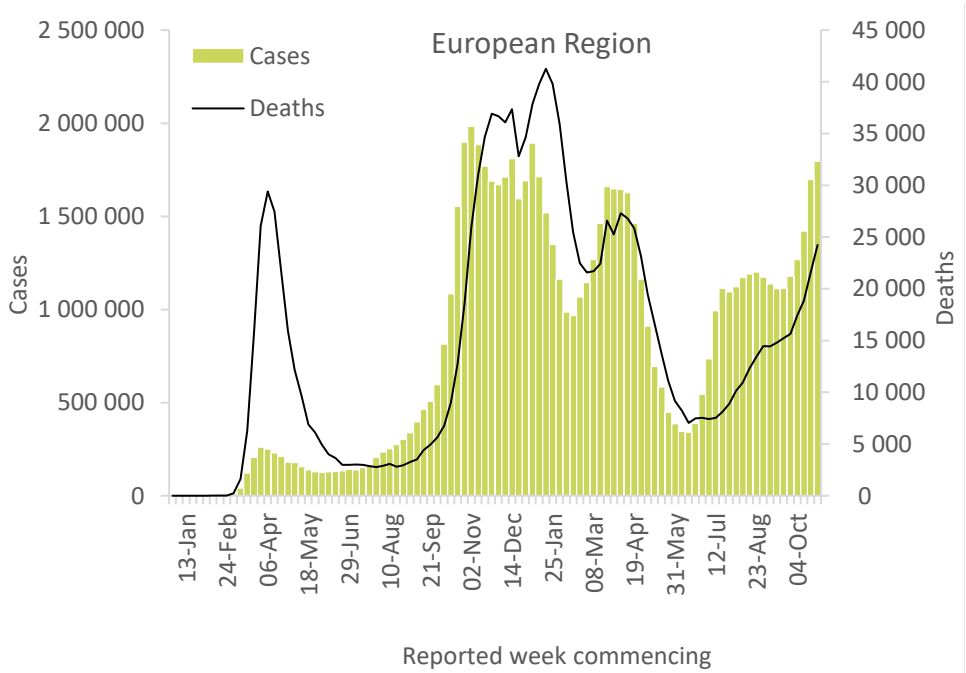


Updates from the Eastern Mediterranean Region

European Region

The European Region has continued to report an increasing trend, with nearly 1.8 million new cases and 24 000 new deaths reported this week, a 6% increase and 12% increase, respectively, as compared to the previous week; reaching regional case rates similar to those reported in December 2020. Out of the 61 countries in the Region, 25 (41%) reported increases in cases in the past week. The highest numbers of new cases were reported from the United Kingdom (285 028 new cases; 419.9 new cases per 100 000; a 14% decrease), the Russian Federation (272 147 new cases; 186.5 new cases per 100 000; a 9% increase), and Turkey (182 027 new cases; 215.8 new cases per 100 000; an 8% decrease).

The highest numbers of new deaths were reported from the Russian Federation (7938 new deaths; 5.4 new deaths per 100 000; a 9% increase), Ukraine (3857 new deaths; 8.8 new deaths per 100 000; a 19% increase), and Romania (3072 new deaths; 15.9 new deaths per 100 000; a 6% increase).

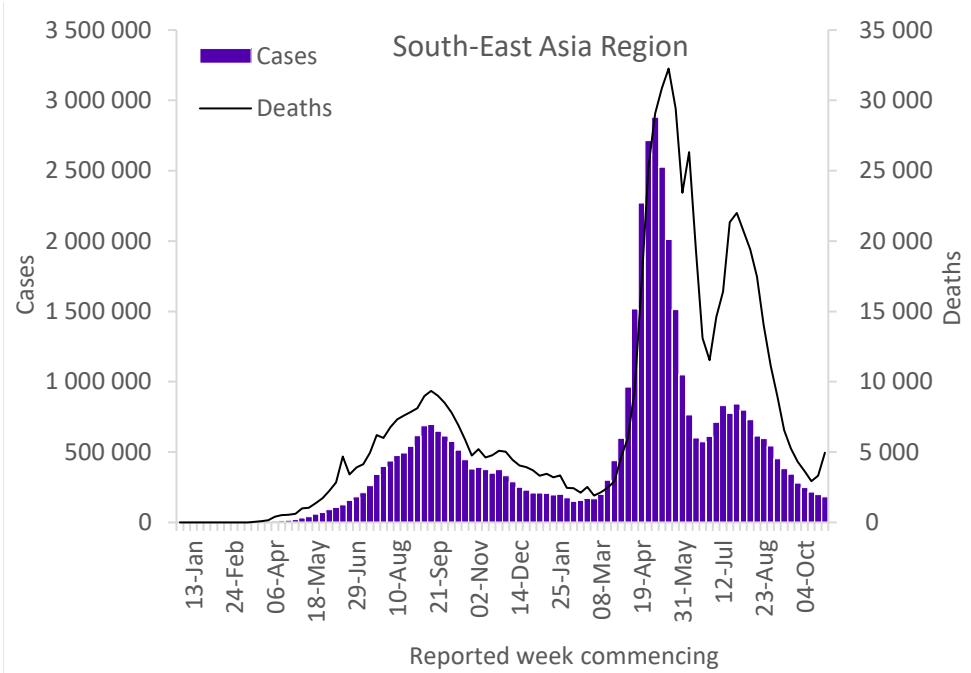


Updates from the European Region

South-East Asia Region

The South-East Asia Region reported over 180 000 new cases and over 4900 new deaths, a 9% decrease and a 50% increase, respectively, as compared to the previous week. While weekly case incidence has continued to decrease week on week for over three months, weekly death incidence increased for the second consecutive week. The highest numbers of new cases were reported from India (97 832 new cases; 7.1 new cases per 100 000; a 9% decrease), Thailand (61 542 new cases; 88.2 new cases per 100 000; an 8% decrease), and Myanmar (5810 new cases; 10.7 new cases per 100 000; a 9% decrease).

The highest numbers of new deaths were reported from India (3917 new deaths; 0.3 new deaths per 100 000; an 83% increase), Thailand (450 new deaths; 0.6 new deaths per 100 000; a 7% decrease), and Indonesia (200 new deaths; 0.1 new deaths per 100 000; a 21% decrease). The number of deaths in India accounted for 79% of new weekly deaths in the Region.

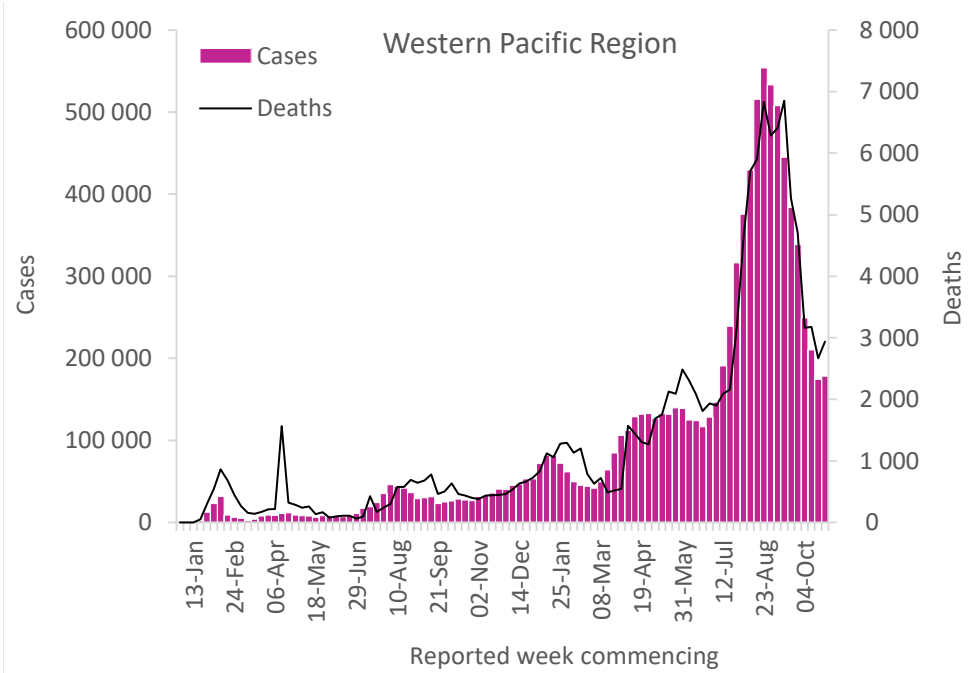


Updates from the South-East Asia Region

Western Pacific Region

The Western Pacific Region reported over 178 000 new cases, similar to numbers of the previous week, and over 2900 new deaths, a 10% increase as compared to the previous week. The highest numbers of new cases were reported from Malaysia (40 613 new cases; 125.5 new cases per 100 000; similar to the previous week), the Philippines (32 222 new cases; 29.4 new cases per 100 000; a 16% decrease), and Viet Nam (30 708 new cases; 31.5 new cases per 100 000; a 28% increase). These three countries comprised 58% of new weekly cases reported in the Region.

The highest numbers of new deaths were reported from the Philippines (1459 new deaths; 1.3 new deaths per 100 000; a 45% increase), Malaysia (522 new deaths; 1.6 new deaths per 100 000; a 5% increase), and Viet Nam (410 new deaths; 0.4 new deaths per 100 000; a 16% decrease). These three countries comprised 81% of new weekly deaths reported in the Region.



Updates from the Western Pacific Region

Technical guidance and other resources

- WHO technical guidance
- WHO COVID-19 Dashboard
- WHO Weekly Operational Updates on COVID-19
- WHO COVID-19 case definitions
- COVID-19 Supply Chain Inter-Agency Coordination Cell Weekly Situational Update
- Research and Development
- OpenWHO courses on COVID-19 in official UN languages and in additional national languages
- WHO Academy COVID-19 mobile learning app
- 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
- Recommendations and advice for the public:
  - Protect yourself
  - Questions and answers
  - Travel advice
- EPI-WIN: tailored information for individuals, organizations and communities

Annexes

Annex 1. Additional notes on VOC impacts on vaccines

- Reductions in VE do not necessarily mean loss of protection, as indicated by the absolute VE estimate. For example, a 10-percentage point reduction in VE against symptomatic disease for mRNA vaccines would still mean high vaccine effectiveness of ~85%. In addition, vaccines have shown higher VE against severe disease; thus, small reductions in VE against severe disease due to VOCs may still mean substantial protection, as is the case for AstraZeneca-Vaxzevria.
- Table 3 summarizes the impact of VOCs on COVID-19 vaccine performance in the absence of waning, and, therefore, does not include studies that only assess VE greater than 4 months post final dose.
- Studies reporting VOC-specific VE estimates for full vaccination (≥7 days post final dose) are assessed against a comparator VE estimate for that vaccine product to determine level of reduction in VE. For symptomatic disease, VOC VE is compared against phase 3 RCT results from non-VOC settings. For severe disease and infection, due to instability or lack of phase 3 RCT estimates, VOC VE is compared to non-VOC VE estimates from the same study when available (or to Alpha VE from same study when assessing Beta, Gamma, or Delta); with an exception for AstraZeneca-Vaxzevria for infection (when a phase 3 estimate of VE against infection due to non-VOC is available and used as comparator). In some instances, a study may be included for severe disease or infection outcome even without a comparator if a very high VE estimate is reported against a VOC (i.e., >90%).
- It is also important to note that studies vary in population, outcome definitions, study design and other methodological considerations, which may in part explain differences when comparing VE estimates for a product between different studies. In addition, the reductions summarized in the table represent VE point estimates and do not represent the uncertainty intervals around these estimates which vary substantially across studies. The reductions in VE noted should be interpreted with these limitations in mind.

Annex 2. List of countries/territories/areas reporting variants of concern as of 2 November 2021

Country/Territory/Area	Alpha	Beta	Gamma	Delta
Afghanistan	●	-	-	●
Albania	●	-	-	○
Algeria	●	-	-	●
Andorra	○	○	-	○
Angola	●	●	●	●
Anguilla	●	-	-	●
Antigua and Barbuda	●	●	●	●
Argentina	●	●	●	●
Armenia	●	-	-	●
Aruba	●	●	●	●
Australia	●	●	●	●
Austria	●	●	●	●
Azerbaijan	●	-	-	○
Bahamas	●	-	●	●
Bahrain	●	●	●	●
Bangladesh	●	●	○	●
Barbados	●	-	●	●
Belarus	●	-	-	○
Belgium	●	●	●	●
Belize	●	-	●	●
Benin	●	●	●	●
Bermuda	●	●	-	●
Bhutan	●	●	-	●
Bolivia (Plurinational State of)	●	-	●	●*
Bonaire	●	-	●	●
Bosnia and Herzegovina	●	●	●	○
Botswana	○	●	-	●
Brazil	●	●	●	●
British Virgin Islands	●	-	●	●
Brunei Darussalam	●	●	-	●
Bulgaria	●	●	-	●

Country/Territory/Area	Alpha	Beta	Gamma	Delta
Burkina Faso	●	-	-	●
Burundi	●	●	-	●
Cabo Verde	●	-	-	●
Cambodia	●	●	-	●
Cameroon	●	●	-	●
Canada	●	●	●	●
Cayman Islands	●	●	●	●
Central African Republic	●	●	-	●
Chad	●	-	-	-
Chile	●	●	●	●
China	●	●	●	●
Colombia	●	-	●	●
Comoros	-	●	-	-
Congo	●	○	●	●
Costa Rica	●	●	●	●
Croatia	●	●	●	○
Cuba	●	●	-	●
Curaçao	●	●	●	●
Cyprus	●	●	-	○
Czechia	●	●	●	●
Côte d'Ivoire	●	●	-	○
Democratic Republic of the Congo	●	●	-	●
Denmark	●	●	●	●
Djibouti	●	●	-	-
Dominica	●	-	-	●
Dominican Republic	●	-	●	●
Ecuador	●	-	●	●
Egypt	●	-	-	●
El Salvador	●	-	●	●
Equatorial Guinea	●	●	-	○
Estonia	●	●	○	○

Country/Territory/Area	Alpha	Beta	Gamma	Delta
Eswatini	○	●	-	●
Ethiopia	●	-	-	●
Falkland Islands (Malvinas)	●	●	-	-
Faroe Islands	●	-	●	-
Fiji	○	-	-	●
Finland	●	●	●	●
France	●	●	●	●
French Guiana	●	●	●	●
French Polynesia	●	●	●	●
Gabon	●	●	-	●
Gambia	●	-	-	●
Georgia	●	○	-	●
Germany	●	●	●	●
Ghana	●	●	●	●
Gibraltar	●	-	-	○
Greece	●	●	●	●
Grenada	●	-	-	●
Guadeloupe	●	●	●	●
Guam	●	●	●	●
Guatemala	●	●	●	●
Guinea	●	●	-	●
Guinea-Bissau	●	●	-	●
Guyana	-	-	●	●
Haiti	●	-	●	●
Honduras	●	-	●	●
Hungary	●	○	●	○
Iceland	●	●	●	●
India	●	●	●	●
Indonesia	●	●	-	●
Iran (Islamic Republic of)	●	●	-	●
Iraq	●	●	-	●

Country/Territory/Area	Alpha	Beta	Gamma	Delta
Ireland	●	●	●	●
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	●	●	-	●
Maldives	●	-	-	●
Mali	-	-	-	●
Malta	●	○	●	○
Martinique	●	●	●	●
Mauritania	●	●	-	●
Mauritius	●	●	-	●
Mayotte	●	●	-	○
Mexico	●	●	●	●
Monaco	●	●	-	●

Country/Territory/Area	Alpha	Beta	Gamma	Delta
Mongolia	●	-	-	●
Montenegro	●	-	○	○
Montserrat	●	-	●	●
Morocco	●	●	-	●
Mozambique	●	●	-	●
Myanmar	●	-	-	●
Namibia	●	●	○*	●
Nepal	●	-	-	●
Netherlands	●	●	●	●
New Caledonia	●	-	-	●
New Zealand	●	●	○	●
Niger	●	-	-	-
Nigeria	●	●	-	●
North Macedonia	●	●	-	○
Northern Mariana Islands (Commonwealth of the)	○	-	-	●
Norway	●	●	●	●
Occupied Palestinian Territory	●	●	-	●
Oman	●	●	-	●
Pakistan	●	●	●	●
Panama	●	●	●	●
Papua New Guinea	-	-	-	●
Paraguay	●	-	●	●
Peru	●	-	●	●
Philippines	●	●	●	●
Poland	●	○	●	●
Portugal	●	●	●	●
Puerto Rico	●	●	●	●
Qatar	●	●	-	●
Republic of Korea	●	●	●	●
Republic of Moldova	●	-	-	●
Romania	●	●	●	●
Russian Federation	●	●	○	●

Country/Territory/Area	Alpha	Beta	Gamma	Delta
Rwanda	●	●	-	●
Réunion	●	●	●	○
Saba	-	-	-	●
Saint Barthélemy	●	-	-	●
Saint Kitts and Nevis	-	-	-	●
Saint Lucia	●	-	-	●
Saint Martin	●	●	-	●
Saint Pierre and Miquelon	-	-	-	●
Saint Vincent and the Grenadines	-	-	●	●
Sao Tome and Principe	●	-	-	○
Saudi Arabia	●	●	-	●
Senegal	●	●	-	●
Serbia	●	-	-	●
Seychelles	●	●	-	●
Sierra Leone	-	●	-	●
Singapore	●	●	●	●
Sint Maarten	●	●	●	●
Slovakia	●	●	-	●
Slovenia	●	●	●	●
Somalia	●	●	-	-
South Africa	●	●	○	●
South Sudan	●	●	-	●
Spain	●	●	●	●
Sri Lanka	●	●	-	●
Sudan	●	●	●	-
Suriname	●	●	●	●
Sweden	●	●	●	●
Switzerland	●	●	●	●
Thailand	●	●	●	●
Timor-Leste	●	-	-	●
Togo	●	●	●	●
Trinidad and Tobago	●	-	●	●

Country/Territory/Area	Alpha	Beta	Gamma	Delta
Tunisia	●	●	-	●
Turkey	●	●	●	●
Turks and Caicos Islands	●	-	●	●
Uganda	●	●	-	●
Ukraine	●	○	-	○
United Arab Emirates	●	●	●	●

Country/Territory/Area	Alpha	Beta	Gamma	Delta
United Kingdom	●	●	●	●
United Republic of Tanzania	-	●	-	-
United States Virgin Islands	●	●	○	●
United States of America	●	●	●	●
Uruguay	●	●	●	●
Uzbekistan	●	●	-	○
Venezuela (Bolivarian Republic of)	●	-	●	●

Country/Territory/Area	Alpha	Beta	Gamma	Delta
Viet Nam	●	●	-	●
Wallis and Futuna	●	-	-	-
Yemen	●	●	-	-
Zambia	●	●	-	●
Zimbabwe	●	●	-	●

**Newly reported in this update.*
"●" 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 travellers (e.g., imported cases detected at points of entry), or local cases (detected in the community). Excludes countries, territories, and areas that have never reported the detection of a variant of concern.*
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 incidences, 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. 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.

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

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

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