



# REGIONE DEL VENETO

giunta regionale

Data 28/04/2021 Protocollo N° 195324 Class: 6920,04.1 Prat. Fasc. Allegati N° 2

Oggetto: interventi per il contrasto alla diffusione della variante indiana e trasmissione bollettino monitoraggio diffusione varianti sul territorio regionale

Ai  
Direttori Dipartimenti di Prevenzione  
Direttori Servizi di Igiene e Sanità Pubblica  
Direttore Servizi Igiene Alimenti e Nutrizione  
Direttori Servizi di Prevenzione, Igiene, Sicurezza  
Ambienti di Lavoro  
Referenti profilassi vaccinale e malattie infettive  
Aziende ULSS del Veneto

E p.c.  
Assessore a Sanità e Servizi Sociali  
Direttore Generale Area Sanità e Sociale  
Direttore UO Cure Primarie  
Direttore Generale Azienda Zero

In considerazione dell'attuale scenario epidemiologico nazionale e internazionale caratterizzato dalla circolazione di numerose varianti di SARS-CoV-2, si evidenzia l'importanza di rafforzare le azioni di sanità pubblica rivolte ai casi COVID-19 sospetti o confermati per variante.

In particolare, nel territorio dell'ULSS 7 Pedemontana sono stati riscontrati i primi due casi COVID-19 riconducibili alla variante indiana B.1.617 presso il comune di Villaverla, in provincia di Vicenza. Tale variante è stata identificata per la prima volta in India nel mese di ottobre 2020 ed è attualmente presente in 17 paesi, compresa quindi l'Italia. Si allega il documento dell'OMS "Weekly epidemiological update on COVID-19 - 27 April 2021".

A tal riguardo, con l'Ordinanza del Ministro della Salute del 25/04/2021 è stato prescritto il controllo nei confronti di tutti coloro che si trovano nel territorio nazionale e che nei quattordici giorni antecedenti alla suddetta ordinanza hanno soggiornato o transitato in India, stabilendo l'obbligo, anche se asintomatici, di comunicare immediatamente l'avvenuto ingresso nel territorio nazionale al Dipartimento di Prevenzione dell'Azienda Sanitaria competente per territorio, di sottoporsi a test molecolare o antigenico e di osservare le relative misure contumaciali.

Si evidenzia, inoltre, che nell'ultimo periodo si è verificato un fenomeno di ingresso ed uscita dai confini nazionali da parte di soggetti in transito dall'India per le celebrazioni religiose del Kumbh Mela ad Haridwar,

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imponendo pertanto un'attenta attività di sorveglianza nei confronti di tutti coloro che hanno partecipato a tale ricorrenza.

Ai fini di limitare la circolazione della variante B.1.617 nel territorio regionale, si ribadisce in primo luogo l'importanza di identificare tempestivamente i soggetti di ritorno dall'India, di eseguire i test di screening raccomandati e di porre in essere tutte le precauzioni necessarie ad evitare l'eventuale insorgenza di focolai nel rispetto di quanto previsto dalla Circolare del Ministero della Salute n. 3787 del 31/01/2021 "Aggiornamento sulla diffusione a livello globale delle nuove varianti SARS-CoV-2, valutazione del rischio e misure di controllo".

Secondariamente, in considerazione della possibile presenza di persone di nazionalità indiana e di recente rientro dal paese di origine che operano presso specifiche realtà produttive nel territorio regionale, si evidenzia la necessità di implementare le attività di monitoraggio e sorveglianza sanitaria con particolare attenzione ai contesti lavorativi maggiormente interessati da tale fenomeno. In particolare, visti i possibili link epidemiologici, si ribadisce la necessità di attivare specifiche azioni di screening (test di biologia molecolare), così come previsto dal Piano di Sanità Pubblica (DGR 308/2021), ad eventuali ulteriori popolazioni target individuate dall'Azienda ULSS territorialmente competente.

In particolare, nell'ottica della prevenzione del rischio di insorgenza di focolai di importazione o legati a contesti lavorativi, si richiede ai Dipartimenti di Prevenzione, in stretta sinergia tra i diversi Servizi coinvolti (SISP, SIAN, SPISAL e Servizi Veterinari) ognuno per quanto di competenza e per conoscenza del territorio, di programmare e favorire interventi mirati di screening nei confronti dei soggetti con possibile link epidemiologico con l'India e con la variante di SARS-CoV-2 lineage B.1.617.

A tal scopo si raccomanda una stretta collaborazione con le Associazioni di categoria e Datori di lavoro al fine di individuare precocemente tutti i soggetti appartenenti a comunità con maggior rischio di contagio per variante indiana e di attuare le opportune attività di screening.

In allegato si trasmette l'ultimo bollettino sul Monitoraggio della Circolazione delle Varianti in Regione Veneto.

Cordiali saluti.

DIREZIONE PREVENZIONE,  
SICUREZZA ALIMENTARE, VETERINARIA  
IL DIRETTORE

Dr.ssa Francesca Russo

Direzione Prevenzione, Sicurezza Alimentare, Veterinaria  
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## COVID-19 Sorveglianza delle varianti di SARS-CoV-2

### Varianti del virus

I virus, in particolare quelli a Rna come i coronavirus, evolvono costantemente attraverso mutazioni del loro genoma. Mutazioni del virus Sars-CoV-2 sono state osservate in tutto il mondo fin dall'inizio della pandemia. Mentre la maggior parte delle mutazioni non ha un impatto significativo qualcuna può dare al virus alcune caratteristiche come ad esempio un vantaggio selettivo rispetto alle altre attraverso una maggiore trasmissibilità, una maggiore patogenicità con forme più severe di malattia o la possibilità di aggirare l'immunità precedentemente acquisita da un individuo o per infezione naturale o per vaccinazione. In questi casi diventano motivo di preoccupazione, e devono essere monitorate con attenzione.

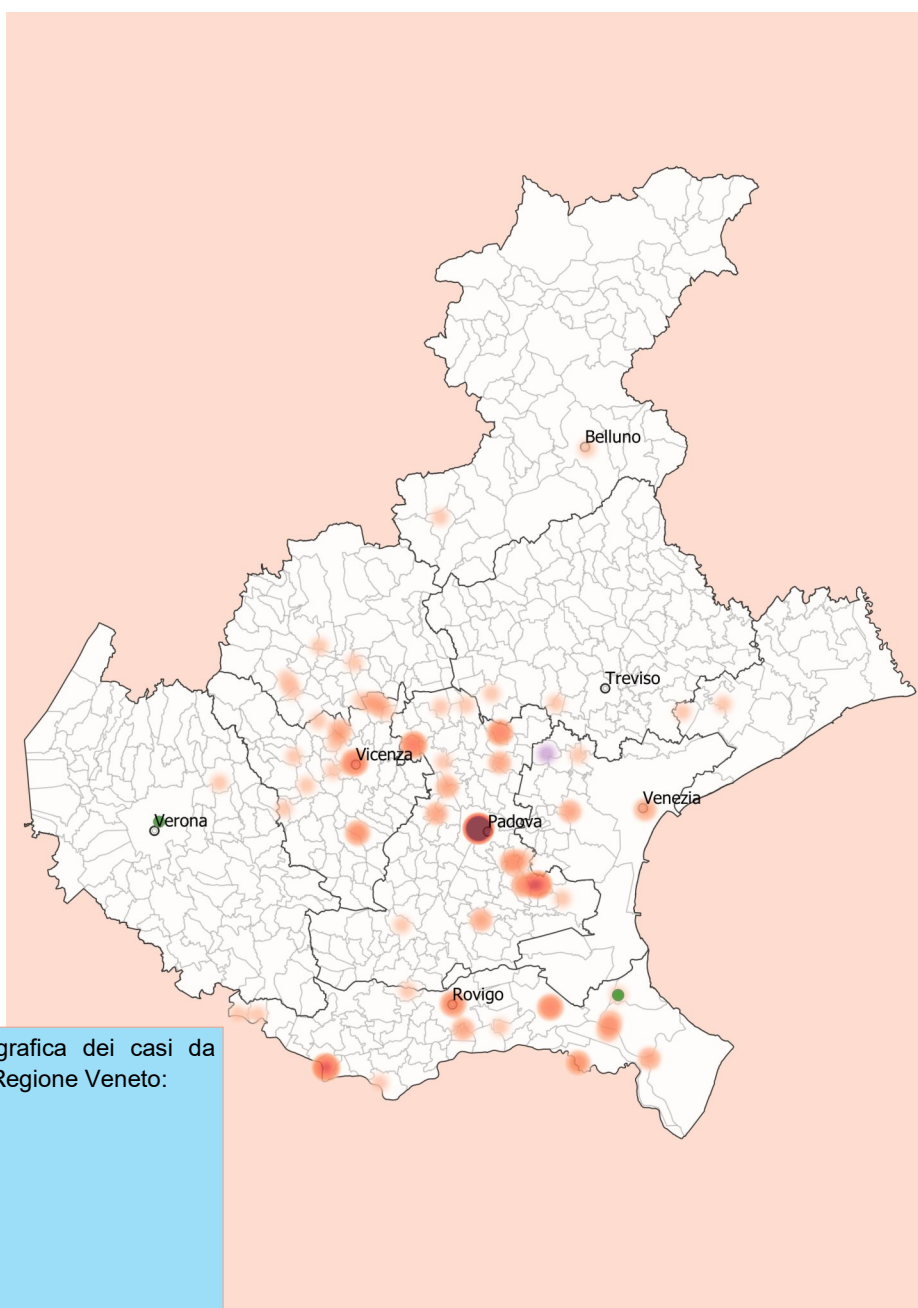


Fig. 1 - Distribuzione geografica dei casi da variante SARS CoV-2 nella Regione Veneto:

- 202012/01, UK
- P.1 Brasiliana
- 501Y.V2 Sudafrica
- B.1.525 Nigeriana
- B.1.617 Indiana

Al momento sono tre le varianti che vengono attentamente monitorate e che prendono il nome dal luogo dove sono state osservate per la prima volta. In tutti e tre i casi il virus presenta delle mutazioni sulla cosiddetta proteina 'spike', che è quella con cui il virus 'si attacca' alla cellula.

### Monitoraggio delle varianti in Italia

- La **'variante inglese' (VOC 202012/01)** è stata isolata per la prima volta nel settembre 2020 in Gran Bretagna, mentre in Europa il primo caso rilevato risale al 9 novembre 2020. E' monitorata perché ha una trasmissibilità più elevata, ipotizzata anche un maggiore patogenicità, ma al momento non sono emerse evidenze di un effetto negativo sull'efficacia dei vaccini.
- La **'variante sudafricana' (501 Y.V2)** è stata isolata per la prima volta nell'ottobre 2020 in Sud Africa, mentre in Europa il primo caso rilevato risale al 28 dicembre 2020. E' monitorata perché ha una trasmissibilità più elevata, e perché dai primi studi sembra che possa diminuire l'efficacia del vaccino. Si studia se possa causare un maggior numero di reinfezioni in soggetti già guariti da COVID-19.
- La **'variante brasiliana' (P.1)** è stata isolata per la prima volta nel gennaio 2021 in Brasile e Giappone. Alla data del 25 gennaio 2021 è stata segnalata in 8 paesi, compresa l'Italia. E' monitorata perché è ipotizzata una trasmissibilità più elevata e perché dai primi studi sembra che possa diminuire l'efficacia del vaccino. Si studia se possa causare un maggior numero di reinfezioni in soggetti già guariti da COVID-19.
- La **'variante indiana' (B.1.617)** variante emergente SARS-CoV-2, identificata per la prima volta nell'Ottobre del 2020 in India, è stata recentemente riportata come una VOIs (Variant of Interest) dall'India. Al 27 Aprile sono state identificate 1200 sequenze assegnate al lineage B.1.617 da almeno 17 Paesi, con prevalenza dall'India, Inghilterra e Singapore. Questo lineage comprende molti sub-lineages inclusi B.1.617.1, B.1.617.2 and B.1.617.3.

Al fine di stimare la diffusione delle varianti in Italia è stata disegnata un'indagine rapida coordinata dall'Istituto Superiore di Sanità in collaborazione con il Ministero della Salute e le Regioni e PPAA ed in particolare con i laboratori da queste ultime identificati. L'obiettivo di questa indagine è l'identificazione di possibili casi di infezione riconducibili a queste varianti, tra i campioni con risultato positivo per SARS-coV-2 in Rt-PCR.

I campioni analizzati tramite sequenziamento genomico vengono selezionati casualmente con le seguenti priorità: individui vaccinati contro SARS-CoV-2 che successivamente si infettano nonostante una risposta immunitaria al vaccino; contesti ad alto rischio, quali ospedali nei quali vengono ricoverati pazienti immunocompromessi positivi a SARS-CoV-2 per lunghi periodi; casi di reinfezione; individui in arrivo da paesi con alta incidenza di varianti SARS-CoV-2; aumento dei casi o cambiamento nella trasmissibilità e/o virulenza in un'area; cambiamento nelle performance di strumenti diagnostici o terapie; analisi di cluster, per valutare la catena di trasmissione e/o l'efficacia di strategie di contenimento dell'infezione. (*Report ISS Prevalenza delle varianti VOC (Variant of concern) in Italia: lineage B.1.1.7, P.1, P.2, lineage B.1.351, lineage b.1.525 indagine del 18.03.21 trasmesso con nota reg. prot. n.128222 del 19.03.21*).

### Dati sulle varianti Regione Veneto

Nella Regione del Veneto i casi di sospetta variante di SARS-CoV-2 vengono inviati per il sequenziamento all'Istituto Zooprofilattico delle Venezie (IZSVE) da parte dei laboratori di microbiologia su richiesta del Servizio Igiene Sanità Pubblica (SISP) o dello stesso laboratorio. L'IZSVE ritorna l'esito del sequenziamento sia al Laboratorio di Microbiologia che al SISP il quale provvede alla registrazione del dato sul sequenziamento nella piattaforma informatica SIAVr COVID-19 e ad attivare le misure di sanità pubblica per la ricerca e gestione dei contatti previste secondo quanto indicato nella circolare ministeriale prot. n.3787 del 31.01.2021.

I dati del presente bollettino vengono elaborati dalla piattaforma SIAVr COVID-19 e presentano i casi suddivisi per Azienda Ulss, per tipologia di variante e fascia di età.

N. casi positivi Ulss per variante al 27/04/21							
ULSS	variante UK *	variante UK *	variante Sudafrica	variante Brasiliana	variante Nigeriana	variante Nigeriana	variante Indiana
	VOC	VOC 202012/01	501Y.V2	P.1	B.1.525	B.1.525	B.1.617
ULSS	n. casi SEQ	n. casi Link Epidem.	n. casi	n. casi	n. casi	n. casi Link	n. casi
1 Dolomiti							
2 Marca Trevigia-							
3 Serenissima	6					1	
4 Veneto Orienta-	1						
5 Polesana	30	2		2			
6 Euganea	8	58					
7 Pedemontana	5						2
8 Berica	4	14					
9 Scaligera					1		
<b>TOTALE</b>	<b>54</b>	<b>74</b>		<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>

\* di cui vaccinati n. 13 pz con 2 dosi

N. casi positivi Ulss per variante per fasce d'età al 27/04/21*												
variante UK VOC 202012/01												
ULSS	0-2	3-5	6-10	11-13	14-18	19-24	25-44	45-64	65-79	80-84	85+	TOT.
1 Dolomiti												
2 Marca Trevigiana												
3 Serenissima			2				1		2	1		<b>6</b>
4 Veneto Orientale							1					<b>1</b>
5 Polesana	2		2	1	3	2	7	4	3	1	7	<b>32</b>
6 Euganea			2		4	2	23	17	16		2	<b>66</b>
7 Pedemontana							1	2		2		<b>5</b>
8 Berica	1					3	2	9	3			<b>18</b>
9 Scaligera												
<b>TOTALE</b>	<b>3</b>		<b>6</b>	<b>1</b>	<b>7</b>	<b>7</b>	<b>35</b>	<b>32</b>	<b>24</b>	<b>4</b>	<b>9</b>	<b>128</b>

\* positivi al sequenziamento e positivi con link epidemiologico

N. casi positivi Ulss per variante per fasce d'età al 27/04/21												
variante Brasiliana P.1												
ULSS	0-2	3-5	6-10	11-13	14-18	19-24	25-44	45-64	65-79	80-84	85+	TOT.
1 Dolomiti												
2 Marca Trevigiana												
3 Serenissima												
4 Veneto Orientale												
5 Polesana									2			<b>2</b>
6 Euganea												
7 Pedemontana												
8 Berica												
9 Scaligera						1						<b>1</b>
<b>TOTALE</b>						<b>1</b>			<b>2</b>			<b>3</b>

N. casi positivi Ulss per variante per fasce d'età al 27/04/21												
variante Nigeriana B.1.525												
ULSS	0-2	3-5	6-10	11-13	14-18	19-24	25-44	45-64	65-79	80-84	85+	TOT
1												
2												
3											1	1
4												
5												
6												
7												
8												
9												
<b>TOTALE</b>											1	1

N. casi positivi Ulss per variante per fasce d'età al 27/04/21												
variante Indiana B.1.617												
ULSS	0-2	3-5	6-10	11-13	14-18	19-24	25-44	45-64	65-79	80-84	85+	TOT
1												
2												
3												
4												
5												
6												
7			1				1					2
8												
9												
<b>TOTALE</b>			1				1					2

Dati elaborati dalla piattaforma SIAVr COVID19\* 27/04/2021 ore 9.00

\*Esclusi guariti, guariti clinicamente, deceduti, fine isolamento.

## Cluster di altre varianti

### Ulss 7 Pedemontana

Segnalati 4 casi SARS-CoV-2 positivi facenti parte di un unico nucleo familiare, rientrati dall'India il 07/04. I viaggiatori hanno riferito di aver effettuato un tampone in India prima della partenza risultato per tutti negativo. Hanno effettuato il tampone molecolare risultato positivo i genitori e un figlio nei giorni 14.04 e 16.04. Dei tre tamponi positivi, solo due sono risultati idonei per il sequenziamento ed hanno avuto esito di **variante indiana**. Il figlio più piccolo ha effettuato un tampone antigenico il 14/04 risultato negativo, ripeterà il tampone molecolare il 29/04.

I genitori hanno iniziato ad accusare sintomi il 12-13/04 (febbre, malessere, tosse, cefalea) e attualmente sono asintomatici. Uno dei figli ha accusato sintomi lievi (rinite) dal 12 al 13/04 mentre il più piccolo è sempre rimasto asintomatico.

Dall'arrivo in Italia sono sempre stati in isolamento presso la loro abitazione.

Fonte: relazione trasmessa dal SiSP Az. Ulss 7

### Ulss 3 Serenissima

Segnalati 2 casi SARS-CoV-2 positivi con **variante atipica** e rilevazione delle mutazioni L452R e T478K. La mutazione L452R è tipica delle varianti B.1.427 e B.1.428 che si sono diffuse rapidamente in California (la mutazione è presente anche nella nuova variante indiana ma questa ha anche la mutazione E484Q, simile a E484K della brasiliana e della SA).

La mutazione T478K sembra un segno tipico della variante B.1.1.222, originata in Messico e successivamente importata negli USA (in particolare è stata rilevata a New York).

Si tratta di 2 coniugi di origine bengalese, il marito ha effettuato un viaggio in Bangladesh di 15 giorni, dove verosimilmente si è infettato. Ha transitato anche per Dhaka. È rientrato in Italia l'8/4/21 e si è auto-isolato appena rientrato in Italia, evitando di contagiare persone fuori dal nucleo familiare. Il loro unico contatto è la figlia, che risulta vaccinata con D2 Pfizer il 27/3/21, ed è sempre risultata negativa ai test. I coniugi sono stati ricoverati per polmonite presso l'Ospedale di Venezia, UO Malattie Infettive con quadro clinico in miglioramento per entrambi.

Da quanto riferito, i parenti e gli amici che il caso indice ha visto in Bangladesh non hanno avuto sintomi e non sono positivi a test per SARS-CoV-2. La distanza di 24h tra esordio sintomatico e viaggio in Bangladesh avvalorano l'ipotesi del contagio in Bangladesh. Non risultano altri contatti.

Fonte: relazione trasmessa dal SiSP Az. Ulss 3

# COVID-19 Weekly Epidemiological Update

Data as received by WHO from national authorities, as of 25 April 2021, 10 am CET

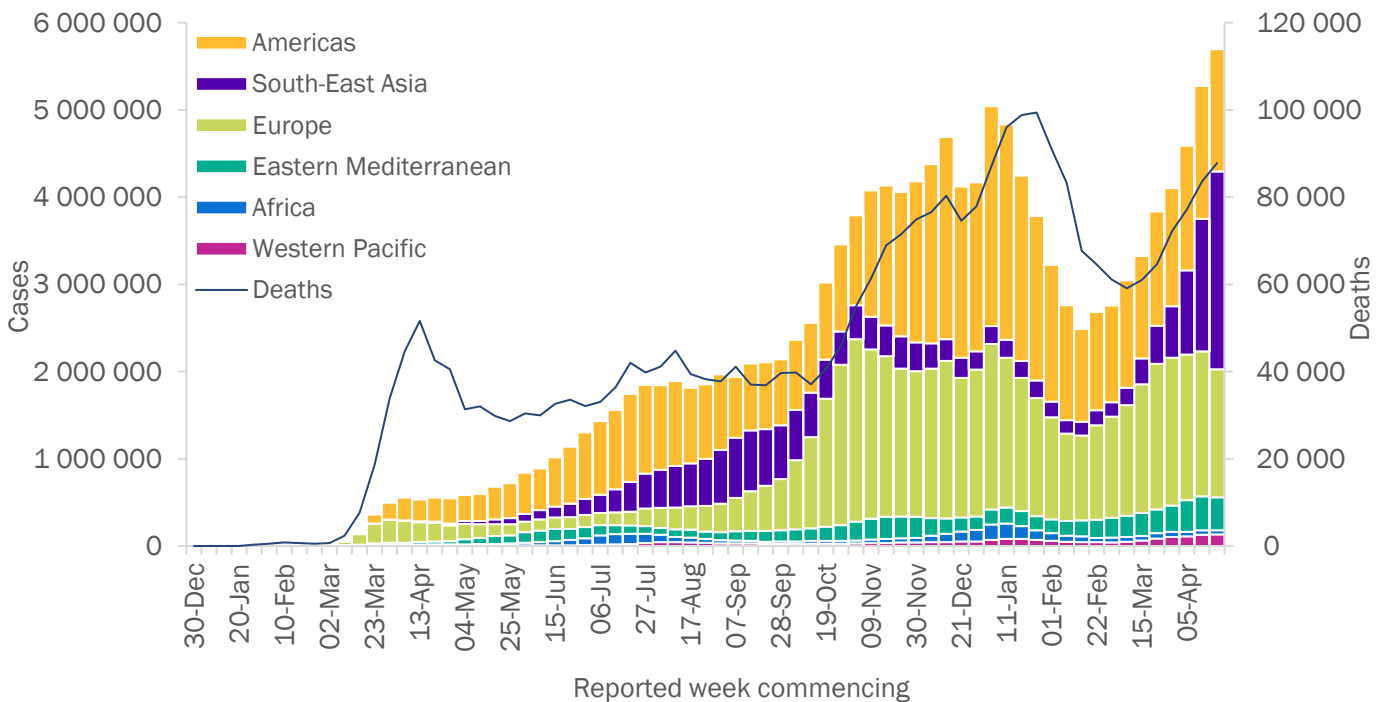
In this edition:

- [Global overview](#)
- [Special focus: SARS-CoV-2 variants](#)
- [WHO regional overviews](#)
- [Key weekly updates](#)

## Global overview

Globally, new COVID-19 cases increased for the ninth consecutive week, with nearly 5.7 million new cases reported in the last week – surpassing previous peaks (Figure 1). The number of new deaths increased for the sixth consecutive week, with over 87 000 new deaths reported. This week, all regions are reporting decreases in case incidence apart from the South-East Asia and Western Pacific regions. For the third consecutive week, the South-East Asia region reported the highest relative increases in both case and death incidences (Table 1). While a number of countries in the region are reporting upward trends, India accounts for the vast majority of cases from this regional trend and 38% of global cases reported in the past week. Similarly, all but two regions, South-East Asia and Eastern Mediterranean, reported declines in new deaths this week.

**Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 25 April 2021\*\***



\*\*See [Annex: Data, table and figure notes](#)



The highest numbers of new cases were reported from India (2 172 063 new cases; 52% increase), the United States of America (406 001 new cases; 15% decrease), Brazil (404 623 new cases; 12% decrease), Turkey (378 771 new cases; 9% decrease), and France (211 674 new cases; 9% decrease).

**Table 1. Newly reported and cumulative COVID-19 cases and deaths, by WHO Region, as of 25 April 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	1 400 004 (25%)	-8%	60 951 004 (42%)	36 530 (42%)	-7%	1 481 266 (48%)
Europe	1 466 680 (26%)	-12%	50 714 995 (35%)	25 341 (29%)	-5%	1 061 218 (34%)
South-East Asia	2 269 114 (40%)	49%	19 965 648 (14%)	17 126 (19%)	81%	254 958 (8%)
Eastern Mediterranean	378 248 (7%)	-2%	8 822 942 (6%)	6 370 (7%)	17%	176 950 (6%)
Africa	49 453 (1%)	-9%	3 274 714 (2%)	1 155 (1%)	-1%	81 870 (3%)
Western Pacific	131 777 (2%)	3%	2 337 462 (2%)	1 304 (1%)	-10%	36 222 (1%)
<b>Global</b>	<b>5 695 277 (100%)</b>	<b>8%</b>	<b>146 067 511 (100%)</b>	<b>87 826 (100%)</b>	<b>5%</b>	<b>3 092 497 (100%)</b>

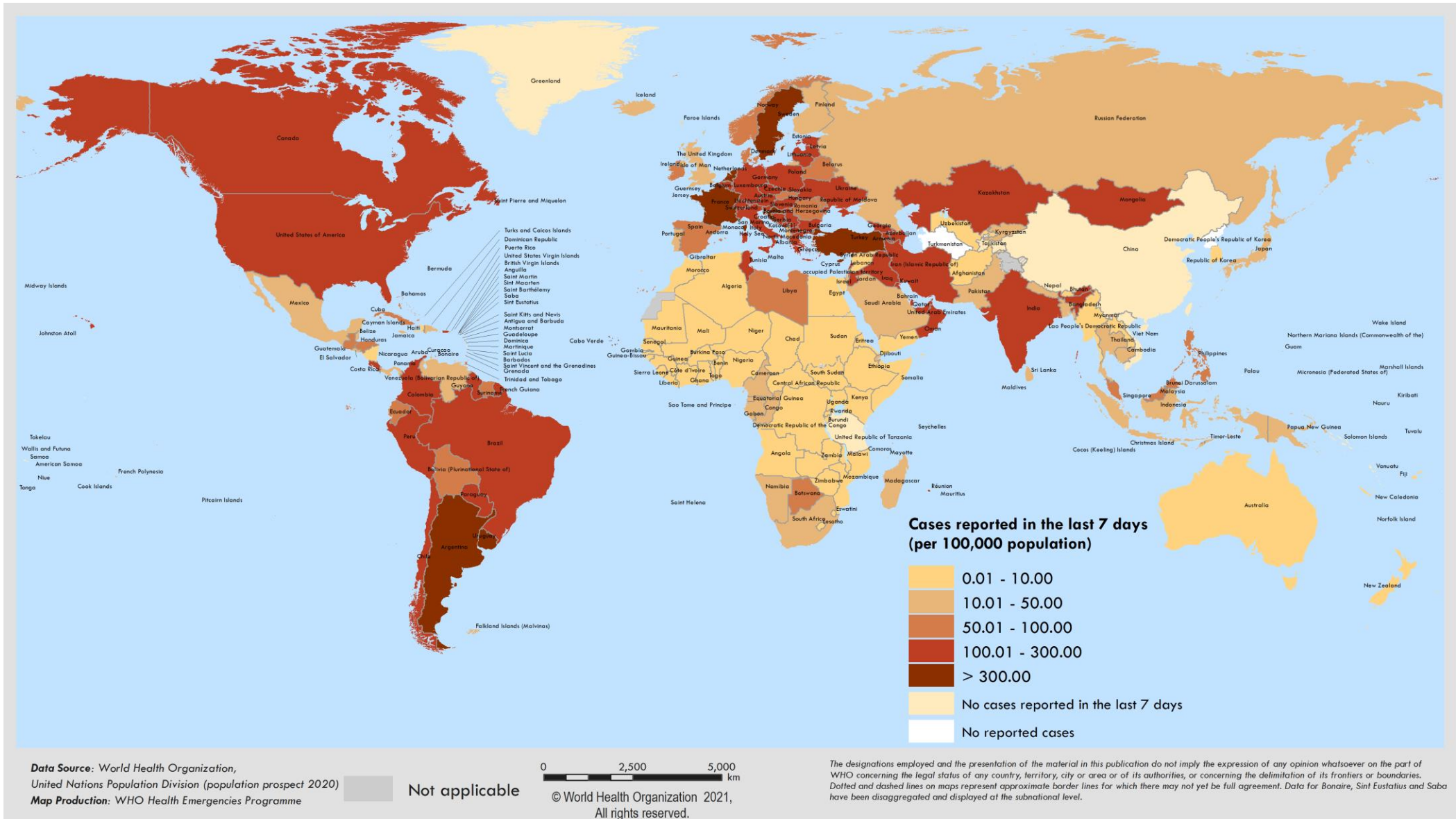
\*Percent change in the number of newly confirmed cases/deaths in past seven days, compared to seven days prior

\*\*See *Annex: 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](#)

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



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

## Special Focus: Update on SARS-CoV-2 variants

WHO, in collaboration with national authorities, institutions and researchers, continues to monitor SARS-CoV-2 variants of interest (VOIs) and variants of concern (VOCs), and assess these and other emerging variants based on the risk posed to global public health, including impacts on epidemiology and public health and social measures (PHSM). Here we provide an update on the geographical distribution, and emerging evidence surrounding phenotypic characteristics of designated VOIs and VOCs (Tables 2).

As surveillance activities to detect SARS-CoV-2 variants are strengthened at local and national levels, including by strategic genomic sequencing and sharing full genome sequences with publicly available platforms such as GISAID, the number of countries/areas/territories (hereafter countries) reporting VOCs continues to increase. Since our last update on 20 April, VOC 202012/01 has been detected in three additional countries, variant 501Y.V2 in three additional countries, and variant P.1 in two additional countries. As of 27 April, a total 139 countries have reported VOC 202012/01 (Figure 3), 87 countries VOC 501Y.V2 (Figure 4), and 54 countries VOC P.1 (Figure 5) – see also Annex 2. These distributions should be interpreted with due consideration of surveillance limitations, including differences in sequencing capacities and prioritization of samples for sequencing between countries.

**Table 2: SARS-CoV-2 variants of interest (VOI) and variants of concern (VOC), as of 27 April 2021**

	Nextstrain clade	Pango lineage	GISAID clade	Alternate name	First detected in	Earliest samples	Characteristic spike mutations
VOC	20I/501Y.V1	B.1.1.7	GR/501Y.V1	VOC 202012/01 <sup>†</sup>	United Kingdom	Sep 2020	69/70del, 144del, N501Y, A570D, D614G, P681H, T716I, S982A, D1118H
	20H/501Y.V2 <sup>†</sup>	B.1.351	GH/501Y.V2 <sup>†</sup>	VOC 202012/02	South Africa	Aug 2020	D80A, D215G, 241/243del, K417N, E484K, N501Y, D614G, A701V
	20J/501Y.V3	B.1.1.28.1, alias P.1 <sup>†</sup>	GR/501Y.V3	VOC 202101/02	Brazil and Japan	Dec 2020	L18F, T20N, P26S, D138Y, R190S, K417T, E484K, N501Y, D614G H655Y, T1027I, V1176F
VOI	20A/S.484K	B.1.525	G/484K.V3	-	United Kingdom and Nigeria	Dec 2020	Q52R, A67V, 69/70del, 144del, E484K, D614G, Q677H, F888L
	20C/S.452R	B.1.427/ B.1.429	GH/452R.V1	CAL.20C/L452R	United States of America	Jun 2020	S13I, W152C, L452R, D614G
	20B/S.484K	B.1.1.28.2, alias P.2	GR	-	Brazil	Apr 2020	E484K, D614G, V1176F
	-	B.1.1.28.3, alias P.3	-	PHL-B.1.1.28	Philippines and Japan	Feb 2021	141/143del, E484K, N501Y, D614G P681H, E1092K, H1101Y, V1176F
	20C	B.1.526 with E484K or S477N	GH	-	United States of America	Nov 2020	L5F, T95I, D253G, D614G, A701V, E484K or S477N
	20C	B.1.616	GH	-	France	Jan 2021	H66D, G142V, 144del, D215G, V483A, D614G, H655Y, G669S, Q949R, N1187D
-	B.1.617 <sup>†</sup>	G/452R.V3	-	India	Oct 2020	L452R, D614G, P681R, ±E484Q	

<sup>†</sup>While work is ongoing to establish standardized nomenclature for key variants, these are the names by which WHO will refer to them in this publication.

Figure 3. Countries, territories and areas reporting SARS-CoV-2 VOC 202012/01, as of 27 April 2021

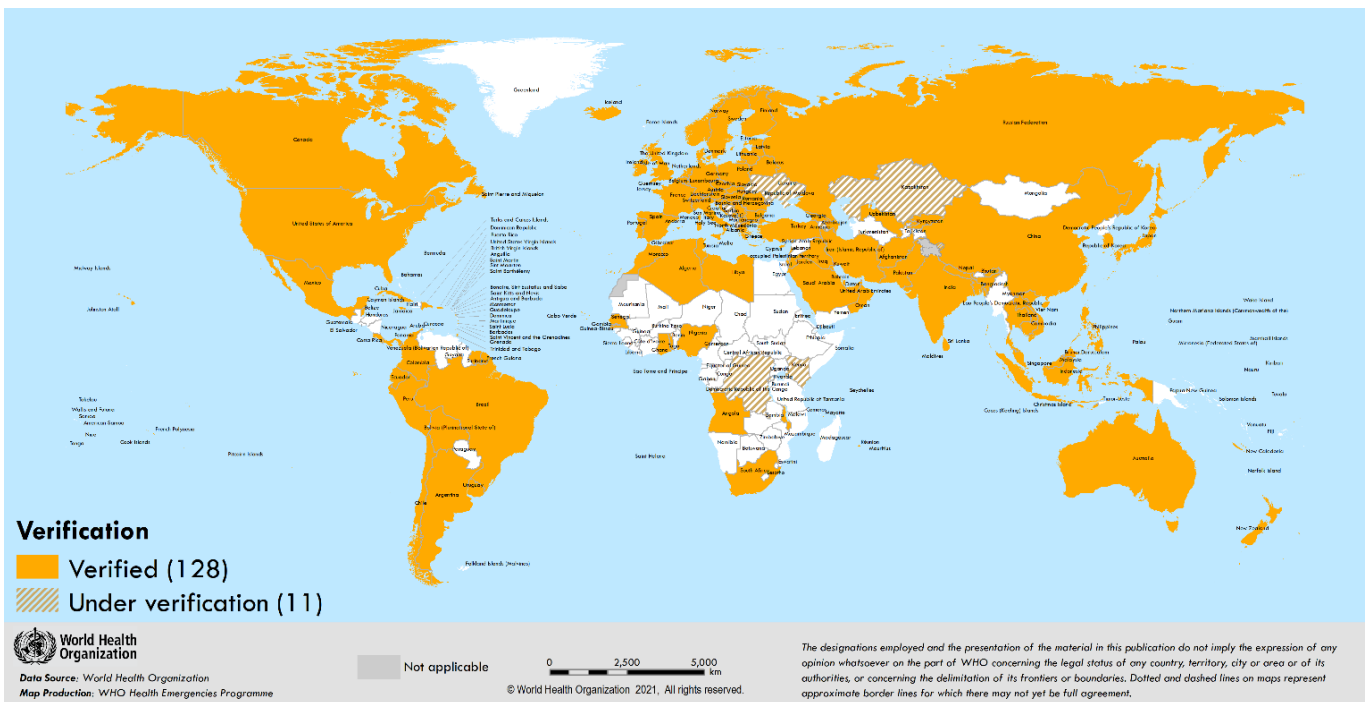
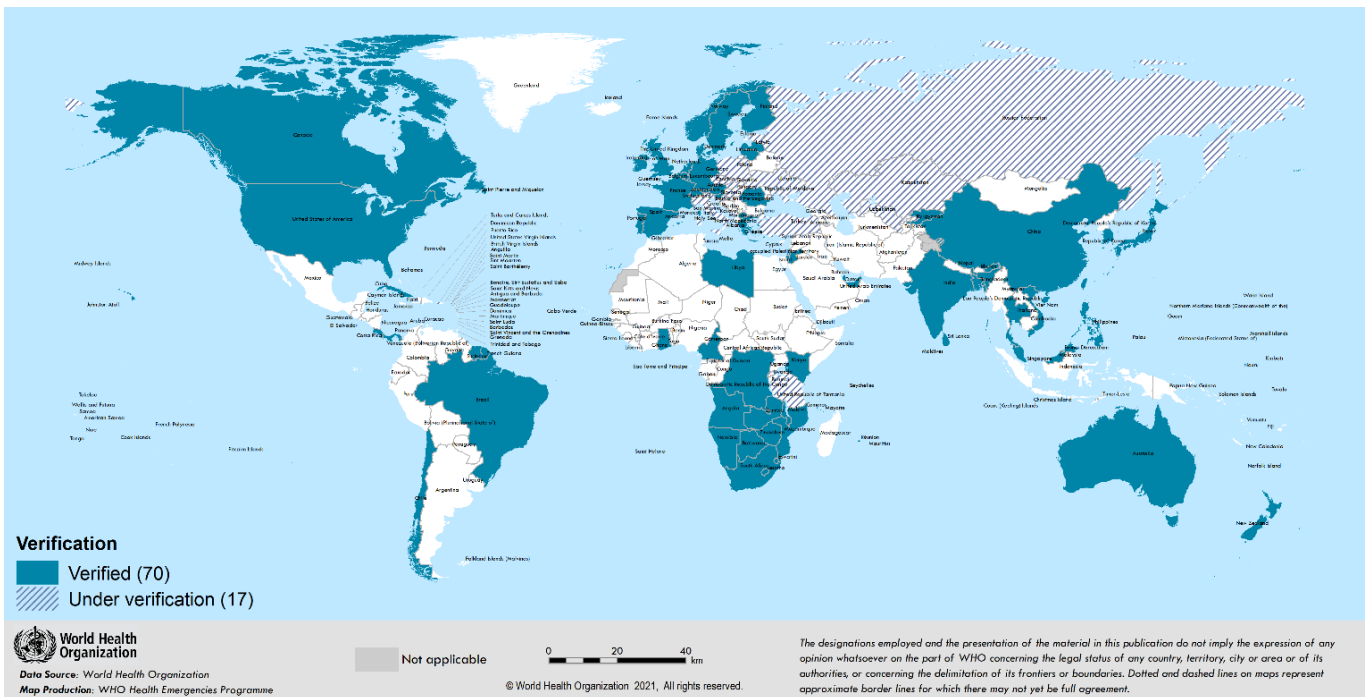
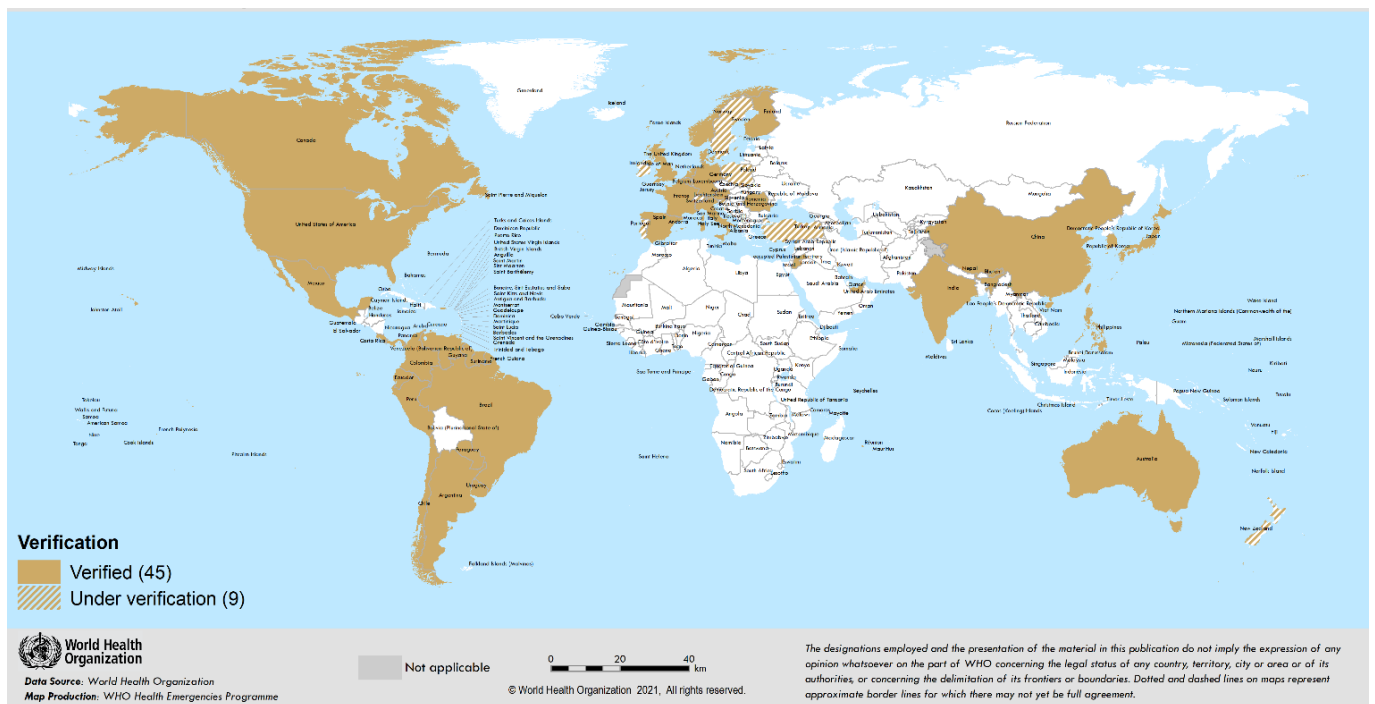


Figure 4. Countries, territories and areas reporting SARS-CoV-2 variant 501Y.V2, as of 27 April 2021



**Figure 5. Countries, territories and areas reporting SARS-CoV-2 variant P.1, as of 27 April 2021**



**Vaccine performance against VOCs**

Available evidence on vaccine performance against VOCs have been highlighted in previous editions of the Weekly Epidemiological Update, most recently [13 April](#), and are summarised in Table 3.

**Table 3: Summary of vaccine performance against variants of concern (VOC) relative to ancestral stains**

VOC 202012/01 (B.1.1.7)	501Y.V2 (B.1.351)	P.1 (B.1.1.28.1)
<b>Efficacy/effectiveness against disease or infection</b>		
<p>Protection retained against disease:</p> <ul style="list-style-type: none"> <li>No/minimal loss: AstraZeneca-Vaxzevria, Novavax-Covavax, Pfizer BioNTech-Comirnaty<sup>1-10</sup></li> </ul> <p>Asymptomatic infection:</p> <ul style="list-style-type: none"> <li>No/minimal loss: Pfizer BioNTech-Comirnaty<sup>11,12</sup></li> <li>Moderate/substantial loss (inconclusive, limited sample size): AstraZeneca-Vaxzevria<sup>2</sup></li> </ul>	<p>Reduced protection against disease, limited evidence</p> <p>Severe disease:</p> <ul style="list-style-type: none"> <li>No/minimal loss: Janssen Ad26.COV 2.5<sup>33</sup></li> </ul> <p>Mild-moderate disease:</p> <ul style="list-style-type: none"> <li>Moderate loss: Janssen-Ad26.COV 2.5, Novavax-Covavax<sup>33,34</sup></li> <li>Substantial loss (Inconclusive, limited sample size): AstraZeneca-Vaxzevria<sup>35</sup></li> </ul> <p>Asymptomatic infection:</p> <ul style="list-style-type: none"> <li>No evidence</li> </ul>	<p>Limited evidence</p> <ul style="list-style-type: none"> <li>No/minimal loss: Sinovac-CoronaVac<sup>42</sup></li> </ul>
<b>Neutralization</b>		
<ul style="list-style-type: none"> <li>No/minimal loss: Bharat-Covaxin, Gamaleya-Sputnik V, Moderna-mRNA-1273, Novavax-Covavax, Pfizer BioNTech-Comirnaty, Beijing CNBG-BBIBP-CorV, Sinovac-CoronaVac<sup>13-32</sup></li> <li>Minimal/moderate loss: AstraZeneca-Vaxzevria<sup>2,28</sup></li> </ul>	<ul style="list-style-type: none"> <li>Minimal/modest loss: Beijing CNBG-BBIBP-CorV, Sinovac-CoronaVac<sup>36,37</sup></li> <li>Minimal to large loss: Moderna-mRNA-1273, Pfizer BioNTech-Comirnaty<sup>13,14,18-20,22-25,27-30,36,38-41</sup></li> <li>Moderate to substantial loss: AstraZeneca-Vaxzevria, Gamaleya-Sputnik V, Novavax-Covavax<sup>20,28,31,40</sup></li> </ul>	<ul style="list-style-type: none"> <li>No/Minimal reduction: AstraZeneca-Vaxzevria, Sinovac-CoronaVac<sup>28,43</sup></li> <li>Minimal/moderate reduction: Moderna-mRNA-1273, Pfizer BioNTech-Comirnaty<sup>14,15,22,25,27,28,39,41,43,44</sup></li> </ul>

Further to this, there is growing real-world evidence of the effectiveness of Pfizer BioNTech-Comirnaty vaccine against symptomatic disease as well as severe disease in health workers and adults in the United Kingdom and Israel during times when VOC 202012/01 was circulating or dominant, providing support for neutralization and vaccine efficacy (VE) results. Real-world evidence also points to high effectiveness against asymptomatic infection.<sup>3-11</sup> Analysis of nationwide surveillance data in Israel reported a VE of 94.1% (93.5-94.6) against asymptomatic infection  $\geq 14$  days post second dose among a large cohort of adults 16 years and older.<sup>11</sup> A second study reported a four-fold decrease in the risk of asymptomatic infection  $\geq 12$  days post dose one among health workers in the United Kingdom.<sup>12</sup>

Two effectiveness studies conducted in the United Kingdom have reported VOC 202012/01-specific VE estimates for two doses of Pfizer BioNTech-Comirnaty, and found no difference in effectiveness of the vaccine against disease caused by VOC 202012/01 as compared to other variants.<sup>3,9</sup>

There is also growing real-world evidence showing a single dose of AstraZeneca-Vaxzevria is effective against symptomatic disease and infection in VOC 202012/01 settings.<sup>3,6-8</sup> Data is currently lacking on the effectiveness of two doses of AstraZeneca. Although moderate to substantial loss was observed with the AstraZeneca-Vaxzevria vaccine, the confidence intervals are broad and caution should be taken interpreting the results, given the limited sample size.<sup>2</sup>

Phase III clinical trial results from South Africa show vaccine efficacy of Janssen-Ad26.COV 2.5 vaccine to be 52% (95% CI: 30.3-67.4) against moderate to severe/critical disease when variant 501Y.V2 made up 95% of sequenced virus. Efficacy against severe critical disease was 73.1% (40.0-89.4), comparable to that found in the USA.<sup>33</sup> Although moderate to substantial loss was observed with the AstraZeneca-Vaxzevria vaccine, the confidence intervals are broad and caution should be taken interpreting the results, given the limited sample size.<sup>35</sup>

### **Variants of interest B.1.617**

Emerging SARS-CoV-2 variants within Pango lineage B.1.617 were recently reported as a VOI from India and has recently been designated as VOIs by WHO. As of 27 April, over 1200 sequences have been uploaded to GISAID and assigned to lineage B.1.617 (collectively) from at least 17 countries; most sequences were uploaded from India, the United Kingdom, USA and Singapore.<sup>45</sup> However, this lineage comprises several sub-lineages, including B.1.617.1, B.1.617.2 and B.1.617.3, which slightly differ by their characteristic mutations. Both B.1.617.1 and B.1.617.2 were first identified in India in December 2020, and have been detected at increasing prevalence concurrent to the major upsurge observed in the country. B.1.617.3 was first detected in India in October 2020, but relatively fewer viruses matching this sub-lineage have been reported to date.

B.1.617 includes several mutations present in other VOIs / VOCs that have been associated with phenotypic impacts. Three characteristic mutations of this variant include L452R, P681R, and E484Q (the latter observed in sub-lineages B.1.617.1 and B.1.617.3). L452R has been identified in another VOI, B.1.427/ B.1.429, which has been associated with increased transmissibility, a reduction in neutralization by some (but not all) monoclonal antibody treatments, and a moderate reduction in neutralization in post-vaccination sera in the USA.<sup>46</sup> P681R is adjacent to the furin cleavage site, and (together with other mutations) may enhance binding and subsequent cleavage of the spike protein and enhances systemic infection and membrane fusion; potentially resulting in enhanced transmission.<sup>47</sup> Laboratory studies suggest that convalescent samples from individuals who had natural infection may have reduced neutralization against variants with an E484Q mutation.<sup>48</sup> Preliminary laboratory studies of a small number of convalescent sera samples of COVID-19 cases (n=17) and recipients of Novavax-Covaxin (n=28) were able to neutralize B.1.617.<sup>49</sup>

In India, heterogeneity in B.1.617 geographic distribution is observed across regions, with co-circulation of other VOCs (including VOC 202012/01 and 501Y.V2) and other variants (e.g., B.1.618), which collectively may be playing a role in the current resurgence in this country. Indeed, studies have highlighted that the spread of

the second wave has been much faster than the first.<sup>50</sup> Preliminary modelling by WHO based on sequences submitted to GISAID suggest that B.1.617 has a higher growth rate than other circulating variants in India, suggesting potential increased transmissibility, with other co-circulating variants also demonstrating increased transmissibility. Other drivers may include challenges around the implementation and adherence to public health and social measures (PHSM), and social gatherings (including mass gatherings during cultural and religious celebrations, and elections). Further investigation is needed to understand the relative contribution of these factors.

It remains unclear how generalizable laboratory-based studies of limited sample sizes, as well as studies of other variants with similar key mutations, are to the wider circulating B.1.617 variants. Further robust studies into the phenotypic impacts of these variants, including impacts on epidemiological characteristics (transmissibility, severity, reinfection risk, etc.) and impact on countermeasures, are urgently needed.

## WHO recommendations

Virus evolution is expected and the more SARS-CoV-2 circulates, the more opportunities it has to mutate. 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 the implementation of PHSM and infection prevention and control (IPC) measures in health facilities has 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

- [Working definitions of SARS-CoV-2 Variants of Interest and Variants of Concern](#)
- [COVID-19 new variants: Knowledge gaps and research](#)
- COVID-19 Situation Reports from WHO Regional Offices and partners: [AFRO](#), [AMRO/PAHO](#), [EMRO](#), [EURO/ECDC](#), [SEARO](#), [WPRO](#)
- [PAHO COVID-19 Situation Reports](#)
- [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](#)

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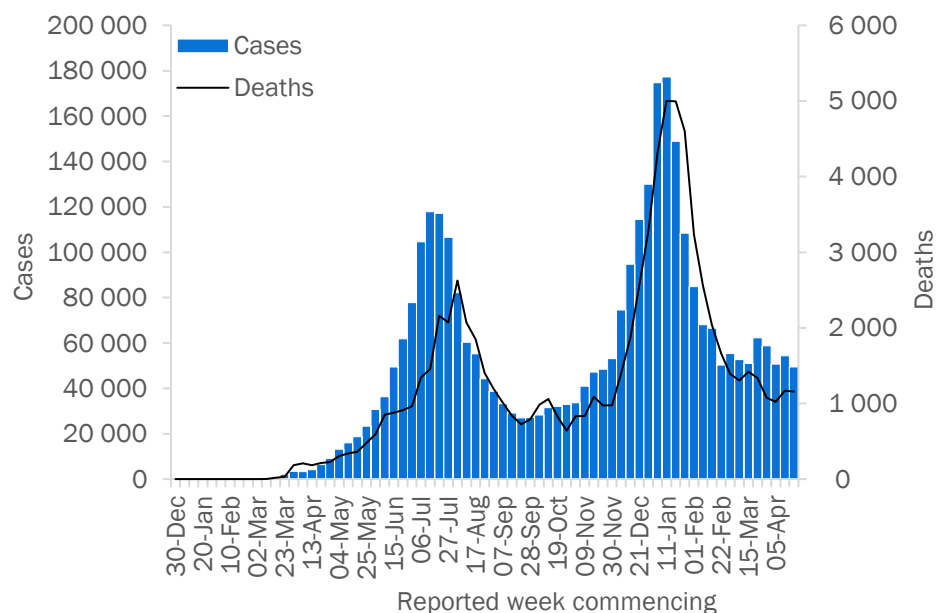


## WHO regional overviews

### African Region

The African Region reported over 49 000 new cases and over 1100 new deaths, a 9% and a 1% decrease respectively compared to the previous week. The number of weekly cases continues to oscillate over the last nine weeks, with an overall decreasing trend in deaths observed since the peak in mid-January. The highest numbers of new cases were reported from Ethiopia (10 719 new cases; 9.3 new cases per 100 000 population; a 17% decrease), South Africa (8690 new cases; 14.7 new cases per 100 000; a 7% increase), and Kenya (5031 new cases; 9.4 new cases per 100 000; an 18% decrease).

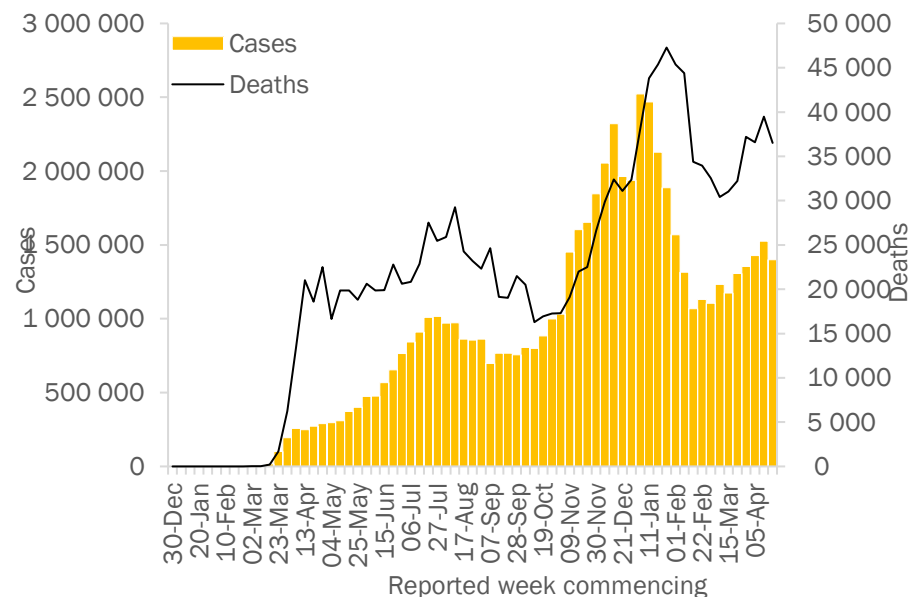
The highest numbers of new deaths were reported from South Africa (414 new deaths; 0.7 new deaths per 100 000 population; a 9% decrease), Ethiopia (203 new deaths; 0.2 new deaths per 100 000; a 12% increase), and Kenya (140 new deaths; 0.3 new deaths per 100 000; a 5% increase).



### Region of the Americas

The Region of the Americas reported over 1.4 million new cases and over 36 000 new deaths, an 8% and a 7% decrease respectively compared to the previous week. The region has reported a decreasing trend in new cases in the last week after eight weeks of a gradual increase, the trend in new deaths also decreased in the last week. The highest numbers of new cases were reported from the United States of America (406 001 new cases; 122.7 new cases per 100 000; a 15% decrease), Brazil (404 623 new cases; 190.4 new cases per 100 000; a 12% decrease), and Argentina (166 024 new cases; 367.3 new cases per 100 000; a 3% increase).

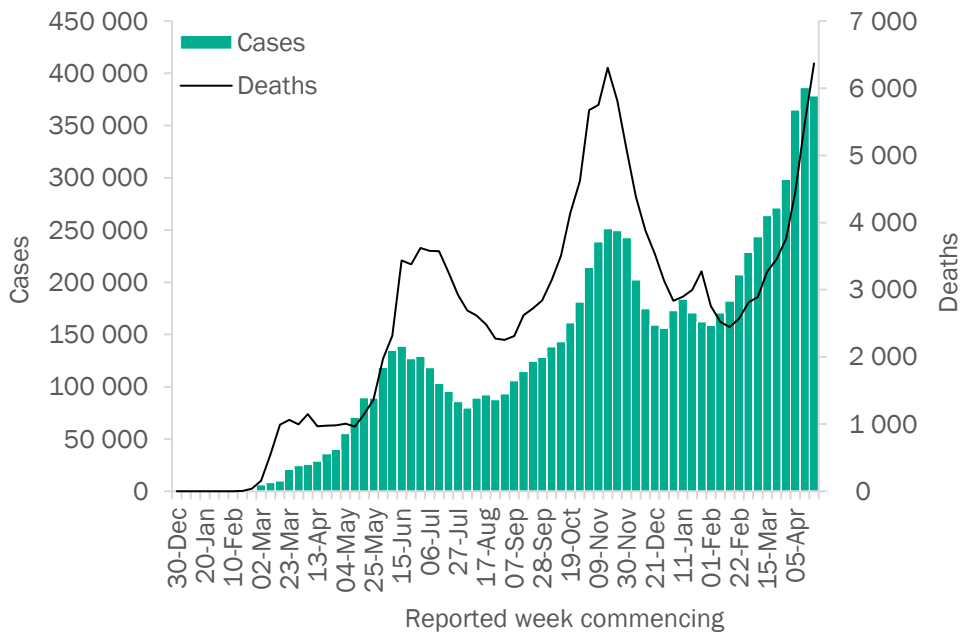
The highest numbers of new deaths were reported from Brazil (17 667 new deaths; 8.3 new deaths per 100 000; a 12% decrease), the United States of America (4951 new deaths; 1.5 new deaths per 100 000; a 4% decrease), and Colombia (2882 new deaths; 5.7 new deaths per 100 000; a 26% increase).



## Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 378 000 new cases and over 6300 new deaths, a 2% decrease and a 17% increase respectively compared to the previous week. The trend in new cases has plateaued after ten weeks of an increase, whereas the trend in new deaths continues to increase sharply for the ninth consecutive week. The highest numbers of new cases were reported from the Islamic Republic of Iran (161 594 new cases; 192.4 new cases per 100 000; a 3% decrease), Iraq (54 301 new cases; 135.0 new cases per 100 000; a 3% increase), and Pakistan (39 858 new cases; 18.0 new cases per 100 000; a 17% increase).

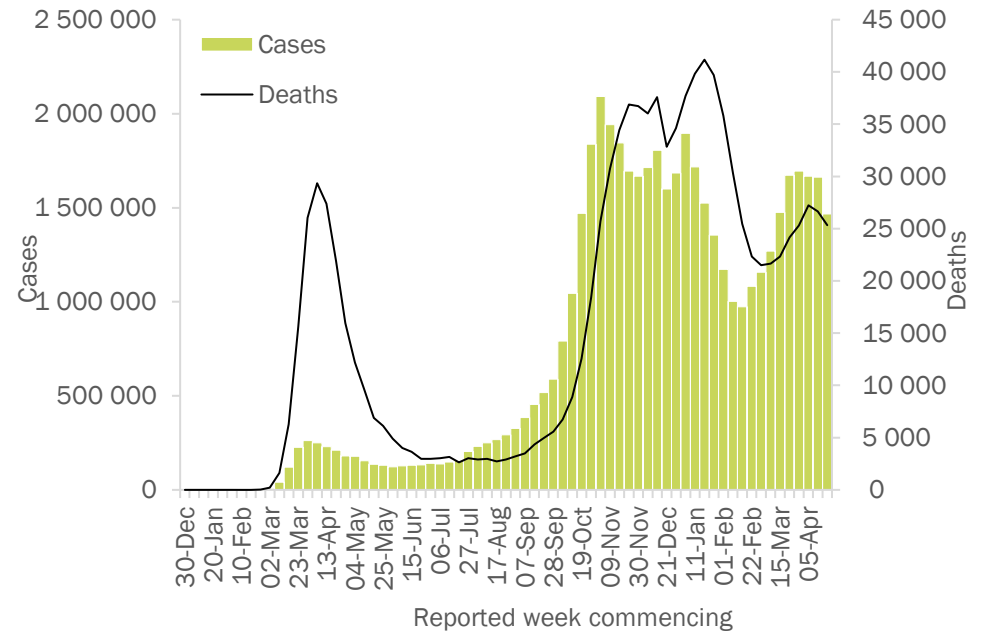
The highest numbers of new deaths were reported from the Islamic Republic of Iran (2793 new deaths; 3.3 new deaths per 100 000; a 33% increase), Pakistan (905 new deaths; 0.4 new deaths per 100 000; an 18% increase), and Tunisia (514 new deaths; 4.3 new deaths per 100 000; a 7% increase).



## European Region

The European Region reported over 1.4 million new cases and over 25 000 new deaths, a 12% and a 5% decrease respectively compared to the previous week. The trend in both new cases and deaths is decreasing in the last two weeks. The highest numbers of new cases were reported from Turkey (378 771 new cases; 449.1 new cases per 100 000; a 9% decrease), France (211 674 new cases; 325.5 new cases per 100 000; a 9% decrease), and Germany (145 156 new cases; 174.5 new cases per 100 000; a 1% increase).

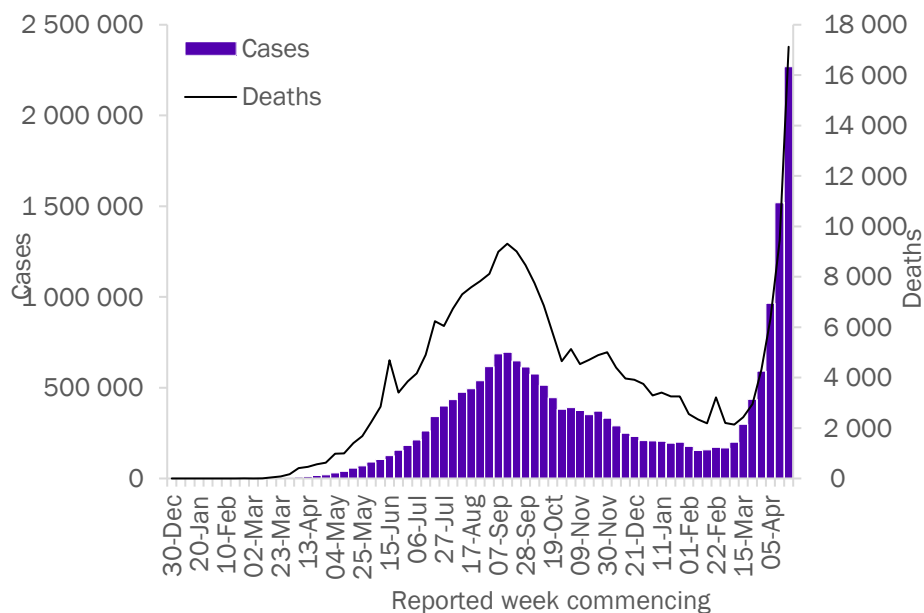
The highest numbers of new deaths were reported from Poland (3383 new deaths; 8.9 new deaths per 100 000; a 6% decrease), the Russian Federation (2650 new deaths; 1.8 new deaths per 100 000; a 2% increase), and Ukraine (2537 new deaths; 5.8 new deaths per 100 000; an 8% decrease).



## South-East Asia Region

The South-East Asia Region reported over 2.2 million new cases and over 17 000 new deaths, a 49% and an 81% increase respectively compared to the previous week. A very sharp rise in new cases and new deaths reported since early in March continues. The main driver of this increase in the region is the high numbers of new cases reported from India (2 172 063 new cases; 157.4 new cases per 100 000; a 52% increase). Additionally, high numbers of new cases were reported from Indonesia (37 029 new cases; 13.5 new cases per 100 000; similar to previous week), and Bangladesh (27 148 new cases; 16.5 new cases per 100 000; a 25% decrease).

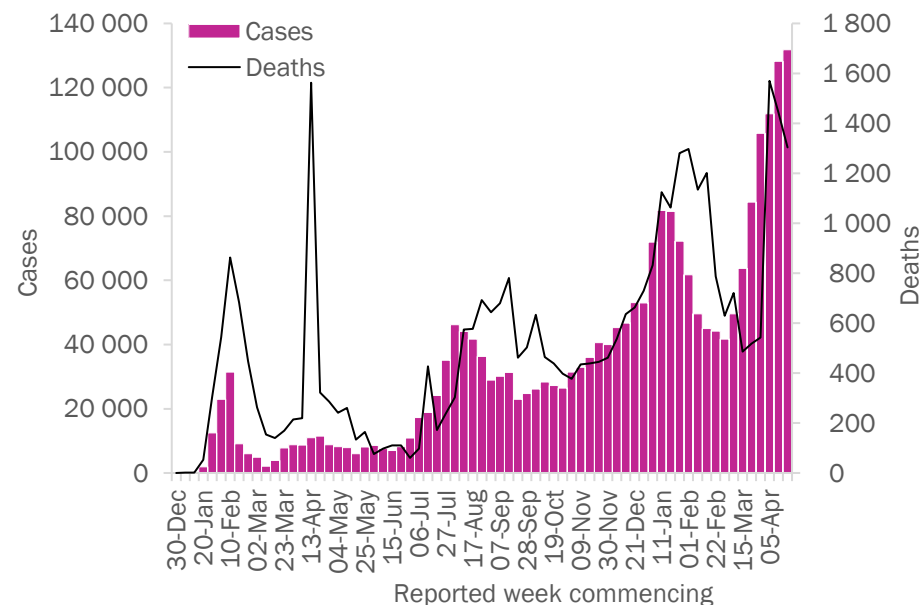
The highest numbers of new deaths were reported from India (15 161 new deaths; 1.1 new deaths per 100 000; a 93% increase), Indonesia (1172 new deaths; 0.4 new deaths per 100 000; a 32% increase), and Bangladesh (669 new deaths; 0.4 new deaths per 100 000; an 8% increase).



## Western Pacific Region

The Western Pacific Region reported nearly 132 000 new cases and over 1300 new deaths, a 3% increase and a 10% decrease respectively compared to the previous week. New weekly cases continue to increase for the seventh consecutive week while new deaths have decreased in the last two weeks following a peak in early April. The highest numbers of new cases were reported from the Philippines (63 364 new cases; 57.8 new cases per 100 000; a 13% decrease), Japan (32 312 new cases; 25.5 new cases per 100 000; a 22% increase), and Malaysia (17 393 new cases; 53.7 new cases per 100 000; a 27% increase).

The highest numbers of new deaths were reported from the Philippines (864 new deaths; 0.8 new deaths per 100 000; a 19% decrease), Japan (291 new deaths; 0.2 new deaths per 100 000; a 21% increase), and Malaysia (56 new deaths; 0.2 new deaths per 100 000; a 14% increase).



## Key weekly updates

### WHO Director-General's key message

[Opening remarks at the media briefing on COVID-19](#) – 23 April 2021:

- One year ago, WHO and many partners came together to launch the Access to COVID-19 Tools (ACT) Accelerator. The ACT Accelerator was conceived to rapidly develop vaccines, diagnostics and therapeutics; and to provide equitable access to those tools. The first objective has been achieved, though we have a long way to go on the second objective.
- We need countries and companies to:
  - share financial resources, to fully fund the ACT Accelerator;
  - share vaccine doses to protect the most at-risk, not just the most-rich;
  - share technology, know-how and intellectual property to scale up production; and
  - be transparent about their bilateral dose donations, so we know who has what.
- The ACT Accelerator needs 19 billion US dollars this year.

### Updates and publications

- [COVID-19 vaccines: Knowledge gaps and research priorities - WHO ad hoc consultation](#)
- [Draft landscape and tracker of COVID-19 candidate vaccines](#)
- [COVID-19 and mandatory vaccination: Ethical considerations and caveats – Policy brief](#)
- [ACT now, ACT together 2020-2021 Impact Report](#)
- [Second round of the national pulse survey on continuity of essential health services during the COVID-19 pandemic: January-March 2021 – Interim report](#)
- [WHO COVID-19 Clinical care bundle](#)
- [Expanding our understanding of post COVID-19 condition: report of a WHO webinar, 9 February 2021 – 24 April 2021](#)
- [Asthma and COVID-19: Scientific brief](#)
- [Disability considerations for COVID-19 vaccination: WHO & UNICEF Policy Brief](#)
- [WHO COVID-19 Essential Supplies Forecasting Tool \(COVID-ESFT\)](#)
- [COVID-19 News updates: Latest news from WHO on COVID-19 and other breaking health stories](#)

## 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 25 April 2021\*\*

Reporting Country/Territory/Area <sup>i</sup>	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 <sup>ii</sup>
<b>Africa</b>	<b>49 453</b>	<b>3 274 714</b>	<b>291.9</b>	<b>1 155</b>	<b>81 870</b>	<b>7.3</b>	
Ethiopia	10 719	250 955	218.3	203	3 531	3.1	Community transmission
South Africa	8 690	1 574 370	2 654.5	414	54 125	91.3	Community transmission
Kenya	5 031	156 318	290.7	140	2 603	4.8	Community transmission
Cameroon	4 267	65 998	248.6	72	991	3.7	Community transmission
Madagascar	3 645	35 262	127.3	55	593	2.1	Community transmission
Cabo Verde	1 809	21 784	3 918.1	12	201	36.2	Community transmission
Botswana	1 780	45 855	1 949.9	20	691	29.4	Community transmission
Algeria	1 250	120 736	275.3	46	3 198	7.3	Community transmission
Angola	1 192	25 492	77.6	16	577	1.8	Community transmission
Namibia	1 156	47 671	1 876.1	22	624	24.6	Community transmission
Rwanda	669	24 535	189.4	6	328	2.5	Community transmission
Democratic Republic of the Congo	604	29 498	32.9	11	756	0.8	Community transmission
Congo	594	10 678	193.5	7	144	2.6	Community transmission
Mali	580	13 560	67.0	33	462	2.3	Community transmission
Gabon	575	22 433	1 007.9	5	138	6.2	Community transmission
Nigeria	537	164 684	79.9	0	2 061	1.0	Community transmission
Mozambique	509	69 643	222.8	9	807	2.6	Community transmission
Zambia	473	91 317	496.7	11	1 245	6.8	Community transmission
Central African Republic	437	6 224	128.9	10	85	1.8	Community transmission
Zimbabwe	395	38 064	256.1	4	1 556	10.5	Community transmission
Senegal	351	40 082	239.4	9	1 099	6.6	Community transmission
Guinea	343	21 803	166.0	1	139	1.1	Community transmission
Seychelles	336	5 170	5 256.9	1	26	26.4	Community transmission

Reporting Country/Territory/Area <sup>i</sup>	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 <sup>ii</sup>
Côte d'Ivoire	301	45 820	173.7	7	281	1.1	Community transmission
Equatorial Guinea	300	7 559	538.8	1	107	7.6	Community transmission
Togo	291	12 787	154.5	2	121	1.5	Community transmission
Ghana	265	91 928	295.8	6	777	2.5	Community transmission
Burundi	241	3 853	32.4	0	6	0.1	Community transmission
Uganda	235	41 575	90.9	3	341	0.7	Community transmission
Burkina Faso	117	13 231	63.3	2	156	0.7	Community transmission
Eritrea	114	3 605	101.7	0	10	0.3	Community transmission
Benin	109	7 720	63.7	1	97	0.8	Community transmission
Gambia	87	5 820	240.8	3	173	7.2	Community transmission
South Sudan	83	10 515	93.9	0	114	1.0	Community transmission
Malawi	77	34 011	177.8	9	1 147	6.0	Community transmission
Mauritania	71	18 192	391.3	2	454	9.8	Community transmission
Chad	61	4 752	28.9	1	169	1.0	Community transmission
Niger	44	5 158	21.3	1	191	0.8	Community transmission
Eswatini	25	18 440	1 589.4	0	671	57.8	Community transmission
Sierra Leone	24	4 044	50.7	0	79	1.0	Community transmission
Sao Tome and Principe	23	2 298	1 048.6	0	35	16.0	Community transmission
Lesotho	19	10 728	500.8	1	316	14.8	Community transmission
Liberia	15	2 086	41.2	0	85	1.7	Community transmission
Comoros	14	3 829	440.3	0	146	16.8	Community transmission
Guinea-Bissau	14	3 724	189.2	1	67	3.4	Community transmission
Mauritius	3	1 206	94.8	1	16	1.3	Clusters of cases
United Republic of Tanzania	0	509	0.9	0	21	0.0	Pending
<b>Territories<sup>iii</sup></b>							
Réunion	918	19 343	2 160.5	6	141	15.7	Community transmission

Reporting Country/Territory/Area <sup>i</sup>	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 <sup>ii</sup>
Mayotte	60	19 849	7 275.6	1	169	61.9	Community transmission
<b>Americas</b>	<b>1 400 004</b>	<b>60 951 004</b>	<b>5 959.4</b>	<b>36 530</b>	<b>1 481 266</b>	<b>144.8</b>	
United States of America	406 001	31 656 636	9 563.9	4 951	565 809	170.9	Community transmission
Brazil	404 623	14 237 078	6 697.9	17 667	386 416	181.8	Community transmission
Argentina	166 024	2 824 652	6 249.8	2 092	61 176	135.4	Community transmission
Colombia	121 122	2 740 544	5 386.0	2 882	70 446	138.4	Community transmission
Canada	58 519	1 164 581	3 085.6	342	23 883	63.3	Community transmission
Peru	56 604	1 745 655	5 294.4	2 558	59 012	179.0	Community transmission
Chile	45 463	1 162 811	6 082.9	687	25 742	134.7	Community transmission
Mexico	23 491	2 323 430	1 802.0	2 811	214 504	166.4	Community transmission
Uruguay	19 968	179 537	5 168.4	439	2 227	64.1	Community transmission
Paraguay	16 328	263 134	3 689.2	538	5 715	80.1	Community transmission
Ecuador	14 597	372 754	2 112.8	517	18 158	102.9	Community transmission
Guatemala	9 000	221 307	1 235.3	205	7 395	41.3	Community transmission
Venezuela (Bolivarian Republic of)	8 772	189 381	666.0	139	2 009	7.1	Community transmission
Bolivia (Plurinational State of)	8 532	295 892	2 534.8	158	12 783	109.5	Community transmission
Costa Rica	8 353	236 930	4 651.1	65	3 136	61.6	Community transmission
Cuba	7 844	100 318	885.7	69	581	5.1	Community transmission
Honduras	6 014	205 696	2 076.8	161	5 095	51.4	Community transmission
Dominican Republic	3 317	263 944	2 433.1	37	3 451	31.8	Community transmission
Panama	2 109	362 358	8 398.1	15	6 200	143.7	Community transmission
Jamaica	1 183	44 867	1 515.2	35	756	25.5	Community transmission
El Salvador	914	68 318	1 053.3	26	2 098	32.3	Community transmission
Guyana	806	12 448	1 582.6	10	277	35.2	Clusters of cases
Trinidad and Tobago	745	9 487	677.9	7	157	11.2	Community transmission



Reporting Country/Territory/Area <sup>i</sup>	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 <sup>ii</sup>
Suriname	436	9 932	1 693.1	6	193	32.9	Clusters of cases
Bahamas	354	10 050	2 555.7	2	196	49.8	Clusters of cases
Saint Lucia	65	4 463	2 430.5	5	70	38.1	Community transmission
Belize	61	12 599	3 168.5	3	321	80.7	Community transmission
Barbados	47	3 820	1 329.3	0	44	15.3	Community transmission
Nicaragua	43	5 450	82.3	1	181	2.7	Community transmission
Haiti	40	12 958	113.6	0	251	2.2	Community transmission
Saint Vincent and the Grenadines	11	1 830	1 649.5	0	10	9.0	Community transmission
Antigua and Barbuda	9	1 222	1 247.8	0	31	31.7	Clusters of cases
Dominica	1	173	240.3	0	0	0.0	Clusters of cases
Grenada	0	159	141.3	0	1	0.9	Sporadic cases
Saint Kitts and Nevis	0	44	82.7	0	0	0.0	No cases
<b>Territories<sup>iii</sup></b>							
Puerto Rico	6 879	127 450	4 455.0	69	2 263	79.1	Community transmission
French Guiana	745	18 826	6 303.0	3	98	32.8	Community transmission
Curaçao	348	12 022	7 326.3	19	99	60.3	Community transmission
Bermuda	255	2 315	3 717.5	6	23	36.9	Community transmission
Aruba	250	10 469	9 805.6	3	95	89.0	Community transmission
United States Virgin Islands	52	3 080	2 949.5	1	27	25.9	Community transmission
Anguilla	29	58	386.6	0	0	0.0	Sporadic cases
Bonaire	16	1 527	7 301.0	1	15	71.7	Community transmission
Sint Maarten	10	2 212	5 158.3	0	27	63.0	Community transmission
Cayman Islands	9	534	812.5	0	2	3.0	Sporadic cases
British Virgin Islands	7	194	641.6	0	1	3.3	Clusters of cases
Turks and Caicos Islands	7	2 376	6 136.7	0	17	43.9	Clusters of cases

Reporting Country/Territory/Area <sup>i</sup>	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 <sup>ii</sup>
Falkland Islands (Malvinas)	1	63	1 808.8	0	0	0.0	Sporadic cases
Guadeloupe	0	12 927	3 230.7	0	194	48.5	Community transmission
Martinique	0	9 758	2 600.3	0	66	17.6	Community transmission
Montserrat	0	20	400.1	0	1	20.0	No cases
Saba	0	6	310.4	0	0	0.0	No cases
Saint Barthélemy	0	954	9 651.0	0	1	10.1	Clusters of cases
Saint Martin	0	1 710	4 423.3	0	13	33.6	Community transmission
Saint Pierre and Miquelon	0	25	431.4	0	0	0.0	Sporadic cases
Sint Eustatius	0	20	637.1	0	0	0.0	No cases
<b>Eastern Mediterranean</b>	<b>378 248</b>	<b>8 822 942</b>	<b>1 207.3</b>	<b>6 370</b>	<b>176 950</b>	<b>24.2</b>	
Iran (Islamic Republic of)	161 594	2 377 039	2 830.0	2 793	69 120	82.3	Community transmission
Iraq	54 301	1 025 288	2 549.0	269	15 217	37.8	Community transmission
Pakistan	39 858	790 016	357.6	905	16 999	7.7	Community transmission
Jordan	16 957	700 423	6 864.8	385	8 563	83.9	Community transmission
Tunisia	14 596	298 572	2 526.3	514	10 231	86.6	Community transmission
United Arab Emirates	13 701	508 925	5 145.6	19	1 569	15.9	Clusters of cases
Lebanon	11 112	519 615	7 612.9	230	7 116	104.3	Community transmission
Kuwait	9 544	265 404	6 214.7	71	1 511	35.4	Community transmission
Oman	8 610	185 278	3 628.2	121	1 942	38.0	Community transmission
Bahrain	7 222	170 335	10 010.4	32	620	36.4	Community transmission
Saudi Arabia	7 209	411 263	1 181.3	77	6 887	19.8	Community transmission
Egypt	6 086	221 570	216.5	304	12 998	12.7	Community transmission
Qatar	5 739	201 496	6 993.8	42	418	14.5	Community transmission
Libya	3 621	174 752	2 543.2	65	2 947	42.9	Community transmission
Morocco	3 590	509 037	1 379.1	44	8 988	24.4	Community transmission
Afghanistan	1 050	58 843	151.2	43	2 582	6.6	Community transmission

Reporting Country/Territory/Area <sup>i</sup>	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 <sup>ii</sup>
Syrian Arab Republic	995	21 999	125.7	89	1 526	8.7	Community transmission
Sudan	651	33 673	76.8	92	2 300	5.2	Clusters of cases
Somalia	622	13 459	84.7	33	689	4.3	Community transmission
Yemen	335	6 109	20.5	56	1 176	3.9	Community transmission
Djibouti	334	10 746	1 087.7	18	132	13.4	Community transmission
<b>Territories<sup>iii</sup></b>							
occupied Palestinian territory	10 521	319 100	6 255.1	168	3 419	67.0	Community transmission
<b>Europe</b>	<b>1 466 680</b>	<b>50 714 995</b>	<b>5 435.3</b>	<b>25 341</b>	<b>1 061 218</b>	<b>113.7</b>	
Kosovo <sup>[1]</sup>	2 662	103 772		57	2 108		Community transmission
Turkey	378 771	4 591 416	5 444.0	2 403	38 011	45.1	Community transmission
France	211 674	5 390 187	8 287.6	2 110	102 031	156.9	Community transmission
Germany	145 156	3 287 418	3 952.8	1 650	81 564	98.1	Community transmission
Italy	92 074	3 949 517	6 622.1	2 345	119 021	199.6	Clusters of cases
Ukraine	78 761	2 025 271	4 630.9	2 537	42 323	96.8	Community transmission
Poland	70 831	2 758 856	7 268.2	3 383	65 415	172.3	Community transmission
Russian Federation	60 468	4 762 569	3 263.5	2 650	108 232	74.2	Clusters of cases
Netherlands	57 991	1 453 058	8 347.3	135	17 038	97.9	Community transmission
Spain	32 476	3 456 886	7 303.4	214	77 496	163.7	Community transmission
Sweden	31 748	938 343	9 085.8	31	13 923	134.8	Community transmission
Belgium	23 086	974 417	8 456.7	270	24 017	208.4	Community transmission
Kazakhstan	19 976	361 575	1 925.7	0	4 157	22.1	Clusters of cases
Hungary	19 010	769 518	7 876.7	1 441	26 625	272.5	Community transmission
Greece	18 286	331 730	3 094.9	553	9 950	92.8	Community transmission
Czechia	17 729	1 618 076	15 130.8	520	28 946	270.7	Community transmission
Romania	17 683	1 044 722	5 405.0	1 195	27 267	141.1	Community transmission
Serbia	17 673	677 972	9 787.8	242	6 196	89.5	Community transmission

Reporting Country/Territory/Area <sup>i</sup>	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 <sup>ii</sup>
The United Kingdom	17 232	4 403 174	6 486.1	157	127 417	187.7	Community transmission
Austria	15 318	603 419	6 779.2	205	9 821	110.3	Community transmission
Croatia	14 836	322 626	7 950.0	292	6 854	168.9	Community transmission
Azerbaijan	12 943	311 465	3 071.9	235	4 342	42.8	Clusters of cases
Bulgaria	11 137	397 100	5 712.5	721	15 859	228.1	Clusters of cases
Switzerland	9 750	643 562	7 436.1	28	9 899	114.4	Community transmission
Belarus	8 751	351 674	3 721.7	70	2 483	26.3	Community transmission
Georgia	8 393	303 751	7 614.4	86	4 025	100.9	Community transmission
Lithuania	7 666	241 297	8 636.0	88	3 848	137.7	Community transmission
Cyprus	6 169	61 576	6 934.2	10	298	33.6	Clusters of cases
Denmark	5 279	247 010	4 242.1	22	2 474	42.5	Community transmission
Bosnia and Herzegovina	5 175	195 471	5 958.0	405	8 242	251.2	Community transmission
Slovenia	4 943	236 612	11 289.5	38	4 523	215.8	Clusters of cases
Armenia	4 768	213 288	7 197.8	140	4 018	135.6	Community transmission
Latvia	3 958	114 955	6 025.9	53	2 101	110.1	Community transmission
Slovakia	3 937	379 911	6 960.8	389	11 495	210.6	Clusters of cases
North Macedonia	3 541	150 274	7 213.0	231	4 650	223.2	Community transmission
Portugal	3 404	833 964	8 100.0	17	16 959	164.7	Clusters of cases
Republic of Moldova	3 404	248 898	6 170.1	161	5 709	141.5	Community transmission
Norway	3 358	109 581	2 041.5	28	736	13.7	Community transmission
Ireland	2 966	246 204	4 959.4	37	4 872	98.1	Community transmission
Estonia	2 661	120 215	9 045.7	51	1 143	86.0	Clusters of cases
Uzbekistan	2 347	89 027	266.0	6	643	1.9	Clusters of cases
Kyrgyzstan	1 948	93 831	1 438.2	33	1 582	24.2	Clusters of cases
Finland	1 904	85 537	1 548.1	16	903	16.3	Community transmission
Luxembourg	1 456	66 202	10 573.6	5	790	126.2	Community transmission

Reporting Country/Territory/Area <sup>i</sup>	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 <sup>ii</sup>
Israel	1 077	837 974	9 681.4	20	6 350	73.4	Community transmission
Albania	953	130 409	4 531.6	32	2 372	82.4	Clusters of cases
Montenegro	649	96 342	15 339.6	22	1 451	231.0	Clusters of cases
Andorra	253	13 024	16 856.3	1	124	160.5	Community transmission
Malta	222	30 149	5 859.1	3	412	80.1	Clusters of cases
Iceland	104	6 390	1 754.8	0	29	8.0	Community transmission
Liechtenstein	40	2 947	7 605.8	0	56	144.5	Sporadic cases
San Marino	37	5 047	14 871.2	3	89	262.2	Community transmission
Monaco	34	2 429	6 189.5	0	31	79.0	Sporadic cases
Holy See	0	26	3 213.8	0	0	0.0	Sporadic cases
Tajikistan	0	13 714	143.8	0	91	1.0	Pending
<b>Territories<sup>iii</sup></b>							
Isle of Man	10	1 585	1 864.0	0	29	34.1	No cases
Faroe Islands	1	663	1 356.8	0	1	2.0	Sporadic cases
Jersey	1	3 233	2 999.2	0	69	64.0	Community transmission
Gibraltar	0	4 283	12 712.6	0	94	279.0	Clusters of cases
Greenland	0	31	54.6	0	0	0.0	No cases
Guernsey	0	822	1 275.1	0	14	21.7	Community transmission
<b>South-East Asia</b>	<b>2 269 114</b>	<b>19 965 648</b>	<b>987.7</b>	<b>17 126</b>	<b>254 958</b>	<b>12.6</b>	
India	2 172 063	16 960 172	1 229.0	15 161	192 311	13.9	Clusters of cases
Indonesia	37 029	1 636 792	598.4	1 172	44 500	16.3	Community transmission
Bangladesh	27 148	742 400	450.8	669	10 952	6.7	Community transmission
Nepal	13 429	297 087	1 019.6	61	3 136	10.8	Clusters of cases
Thailand	13 108	55 460	79.5	39	140	0.2	Clusters of cases
Sri Lanka	4 147	100 586	469.7	21	638	3.0	Clusters of cases
Maldives	1 476	27 621	5 109.9	2	71	13.1	Clusters of cases

Reporting Country/Territory/Area <sup>i</sup>	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 <sup>ii</sup>
Timor-Leste	572	1 808	137.1	1	3	0.2	Clusters of cases
Myanmar	76	142 704	262.3	0	3 206	5.9	Clusters of cases
Bhutan	66	1 018	131.9	0	1	0.1	Sporadic cases
<b>Western Pacific</b>	<b>131 777</b>	<b>2 337 462</b>	<b>119.0</b>	<b>1 304</b>	<b>36 222</b>	<b>1.8</b>	
Philippines	63 364	989 399	902.9	864	16 674	15.2	Community transmission
Japan	32 312	562 141	444.5	291	9 913	7.8	Clusters of cases
Malaysia	17 393	390 252	1 205.7	56	1 426	4.4	Community transmission
Mongolia	8 564	29 219	891.3	33	74	2.3	Clusters of cases
Republic of Korea	4 773	118 887	231.9	16	1 813	3.5	Clusters of cases
Cambodia	3 586	9 975	59.7	31	74	0.4	Sporadic cases
Papua New Guinea	932	10 670	119.3	13	102	1.1	Community transmission
China	191	103 464	7.0	0	4 856	0.3	Clusters of cases
Lao People's Democratic Republic	189	247	3.4	0	0	0.0	Sporadic cases
Singapore	158	60 966	1 042.1	0	30	0.5	Sporadic cases
Australia	153	29 658	116.3	0	910	3.6	Clusters of cases
Viet Nam	52	2 833	2.9	0	35	0.0	Clusters of cases
Fiji	15	87	9.7	0	2	0.2	Sporadic cases
New Zealand	7	2 245	46.6	0	26	0.5	Clusters of cases
Brunei Darussalam	2	223	51.0	0	3	0.7	Sporadic cases
Solomon Islands	0	20	2.9	0	0	0.0	No cases
<b>Territories<sup>iii</sup></b>							
Guam	43	7 697	4 560.5	0	136	80.6	Clusters of cases
French Polynesia	38	18 734	6 669.1	0	141	50.2	Sporadic cases
Northern Mariana Islands (Commonwealth of the)	2	164	284.9	0	2	3.5	Pending
Wallis and Futuna	2	449	3 992.5	0	5	44.5	Sporadic cases

Reporting Country/Territory/Area <sup>i</sup>	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 <sup>ii</sup>
New Caledonia	1	124	43.4	0	0	0.0	Sporadic cases
Marshall Islands	0	4	6.8	0	0	0.0	No cases
Samoa	0	1	0.5	0	0	0.0	No cases
Vanuatu	0	3	1.0	0	0	0.0	No cases
<b>Global</b>	<b>5 695 277</b>	<b>146 067 511</b>		<b>87 826</b>	<b>3 092 497</b>		

\*See [Annex: Data, table and figure notes](#)

**Annex 2. List of countries/territories/areas reporting variants of concern as of 27 April 2021\*\***

Country/Territory/Area	VOC 202012/01 (B.1.1.7)	501Y.v2 (B.1.351)	P.1 (B.1.1.28)
Afghanistan	Verified	-	-
Albania	Under verification	-	-
Algeria	Verified	-	-
Angola	Verified	Verified	-
Argentina	Verified	-	Verified
Armenia	Under verification	-	-
Aruba	Verified	Verified	Verified
Australia	Verified	Verified	Verified
Austria	Verified	Verified	Verified
Azerbaijan	Verified	-	-
Bahrain	Verified	-	-
Bangladesh	Verified	Verified	-
Barbados	Verified	-	-
Belarus	Verified	-	-
Belgium	Verified	Verified	Verified
Belize	Verified	-	-
Bolivia (Plurinational State of)	Verified*	-	-
Bonaire	Verified	-	-
Bosnia and Herzegovina	Under verification	-	-
Botswana	-	Verified	-
Brazil	Verified	Verified	Verified
Brunei Darussalam	Verified	Verified	-
Bulgaria	Verified	-	-
Cabo Verde	Verified	-	-
Cambodia	Verified	-	-
Cameroon	-	Verified	-

Country/Territory/Area	VOC 202012/01 (B.1.1.7)	501Y.v2 (B.1.351)	P.1 (B.1.1.28)
Canada	Verified	Verified	Verified
Cayman Islands	Verified	-	-
Chile	Verified	Verified	Verified
China	Verified	Verified	Verified
Colombia	Verified	-	Verified
Comoros	-	Verified	-
Costa Rica	Verified	Verified	Verified
Croatia	Verified	Under verification	-
Cuba	Verified	Verified	-
Curaçao	Verified	-	-
Cyprus	Verified	-	-
Czechia	Verified	Under verification	-
Democratic Republic of the Congo	Under verification	Verified	-
Denmark	Verified	Verified	Verified
Dominican Republic	Verified	-	-
Ecuador	Verified	-	Verified
Estonia	Verified	Under verification	-
Eswatini	-	Verified	-
Faroe Islands	-	-	Verified
Finland	Verified	Verified	Verified
France	Verified	Verified	Verified
French Guiana	Verified	Verified	Verified
French Polynesia	Verified	-	Verified
Gambia	Verified	-	-



Country/Territory/Area	VOC 202012/01 (B.1.1.7)	501Y.v2 (B.1.351)	P.1 (B.1.1.28)
Georgia	Verified	-	-
Germany	Verified	Verified	Verified
Ghana	Verified	Verified	-
Gibraltar	Under verification	-	-
Greece	Verified	Verified	-
Grenada	Verified	-	-
Guadeloupe	Verified	-	-
Guyana	-	-	Verified
Hungary	Verified	Under verification	-
Iceland	Verified	-	-
India	Verified	Verified	Verified
Indonesia	Verified	-	-
Iran (Islamic Republic of)	Verified	-	-
Iraq	Verified	-	-
Ireland	Verified	Verified	Under verification
Israel	Verified	Verified	-
Italy	Verified	Under verification	Verified
Jamaica	Verified	-	-
Japan	Verified	Verified	Verified
Jordan	Verified	Verified	Verified
Kazakhstan	Under verification	Under verification	-
Kenya	Under verification	Verified	-
Kosovo <sup>[1]</sup>	Verified	-	-
Kuwait	Verified	-	-
Kyrgyzstan	Verified*	Verified*	-

Country/Territory/Area	VOC 202012/01 (B.1.1.7)	501Y.v2 (B.1.351)	P.1 (B.1.1.28)
Lao People's Democratic Republic	Verified*	-	-
Latvia	Verified	Verified	-
Lebanon	Verified	-	-
Lesotho	-	Verified	-
Libya	Verified	Verified	-
Liechtenstein	Verified	-	-
Lithuania	Verified	Verified	-
Luxembourg	Verified	Verified	Under verification
Malawi	Verified	Verified	-
Malaysia	Verified	Verified	-
Malta	Verified	Under verification	Verified*
Martinique	Verified	-	-
Mauritius	Under verification	-	-
Mayotte	Verified	Verified	-
Mexico	Verified	-	Verified
Monaco	Verified	Under verification	-
Montenegro	Verified	-	-
Morocco	Verified	-	-
Mozambique	-	Verified	-
Namibia	-	Verified	-
Nepal	Verified	-	-
Netherlands	Verified	Verified	Verified
New Caledonia	Verified	-	-
New Zealand	Verified	Verified	Under verification

Country/Territory/Area	VOC 202012/01 (B.1.1.7)	501Y.v2 (B.1.351)	P.1 (B.1.1.28)
Nigeria	Verified	-	-
North Macedonia	Verified	Verified*	-
Norway	Verified	Verified	Verified
occupied Palestinian territory	Verified	Verified	-
Oman	Verified	-	-
Pakistan	Verified	-	-
Panama	Verified	Verified	Verified
Paraguay	-	-	Verified
Peru	Verified	-	Verified
Philippines	Verified	Verified	Verified
Poland	Verified	Under verification	Under verification
Portugal	Verified	Verified	Under verification
Puerto Rico	Verified	Under verification*	Verified
Qatar	Verified	Verified	-
Republic of Korea	Verified	Verified	Verified
Republic of Moldova	Under verification	-	-
Réunion	Verified	Verified	Verified
Romania	Verified	Verified	Verified
Russian Federation	Verified	Under verification	-
Rwanda	Under verification	Under verification	-
Saint Barthélemy	Verified	-	-
Saint Lucia	Verified	-	-
Saint Martin	Verified	Verified	Verified
Saudi Arabia	Verified	-	-

Country/Territory/Area	VOC 202012/01 (B.1.1.7)	501Y.v2 (B.1.351)	P.1 (B.1.1.28)
Senegal	Verified	-	-
Serbia	Verified	-	-
Singapore	Verified	Verified	-
Sint Maarten	Verified	-	-
Slovakia	Verified	Under verification	-
Slovenia	Verified	Verified	Under verification
South Africa	Verified	Verified	-
Spain	Verified	Verified	Verified
Sri Lanka	Verified	Verified	-
Suriname	Verified	Verified	Verified
Sweden	Verified	Verified	Under verification
Switzerland	Verified	Verified	Under verification
Thailand	Verified	Verified	-
The United Kingdom	Verified	Verified	Verified
Togo	Verified	-	-
Trinidad and Tobago	Verified	-	Verified*
Tunisia	Verified	-	-
Turkey	Verified	Under verification	Under verification
Turks and Caicos Islands	Verified	-	-
Ukraine	Under verification	Under verification	-
United Arab Emirates	Verified	Verified	Verified
United Republic of Tanzania	-	Under verification	-
United States of America	Verified	Verified	Verified

Country/Territory/Area	VOC 202012/01 (B.1.1.7)	501Y.v2 (B.1.351)	P.1 (B.1.1.28)
Uruguay	Verified	-	Verified
Uzbekistan	Verified	Under verification	-
Venezuela (Bolivarian Republic of)	-	-	Verified

Country/Territory/Area	VOC 202012/01 (B.1.1.7)	501Y.v2 (B.1.351)	P.1 (B.1.1.28)
Viet Nam	Verified	Verified	-
Wallis and Futuna	Verified	-	-
Zambia	-	Verified	-
Zimbabwe	-	Verified	-

\*Newly reported in this update.

"Verified" indicates that information for this variant was received by WHO from official sources.

"Under verification" indicates that information for this variant was received by WHO from unofficial sources and will be reviewed as more information become available.

Variants VOC 202012/01 for Syrian Arab Republic, and 501Y.V2 for Uganda, were excluded this week based on further information received.

\*\*See [Annex: 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](mailto: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](https://covid19.who.int) for the most up-to-date data. Global totals include 746 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.

<sup>[1]</sup> 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.

<sup>i</sup> 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).

<sup>ii</sup> 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](#):

- No (active) cases: No new cases detected for at least 28 days (two times the maximum incubation period), in the presence of a robust surveillance system. This implies a near-zero risk of infection for the general population.
- Imported / Sporadic cases: Cases detected in the past 14 days are all imported, sporadic (e.g., laboratory acquired or zoonotic) or are all linked to imported/sporadic cases, and there are no clear signals of further locally acquired transmission. This implies minimal risk of infection for the general population.

- Clusters of cases: Cases detected in the past 14 days are predominantly limited to well-defined clusters that are not directly linked to imported cases, but which are all linked by time, geographic location and common exposures. It is assumed that there are a number of unidentified cases in the area. This implies a low risk of infection to others in the wider community if exposure to these clusters is avoided.
- Community transmission: Which encompasses a range of levels from low to very high incidence, as described below and informed by a series of indicators described in the aforementioned guidance. As these subcategorizations are not currently collated at the global level, but rather intended for use by national and sub-national public health authorities for local decision-making, community transmission has not been disaggregated in this information product.
  - CT1: Low incidence of locally acquired, widely dispersed cases detected in the past 14 days, with many of the cases not linked to specific clusters; transmission may be focused in certain population sub-groups. Low risk of infection for the general population.
  - CT2: Moderate incidence of locally acquired, widely dispersed cases detected in the past 14 days; transmission less focused in certain population sub-groups. Moderate risk of infection for the general population.
  - CT3: High incidence of locally acquired, widely dispersed cases in the past 14 days; transmission widespread and not focused in population sub-groups. High risk of infection for the general population.
  - CT4: Very high incidence of locally acquired, widely dispersed cases in the past 14 days. Very high risk of infection for the general population.
- Pending: transmission classification has not been reported to WHO.

<sup>iii</sup> “Territories” include territories, areas, overseas dependencies and other jurisdictions of similar status.