



Sayı : 38591462-010.07.03-2022-1873

26.04.2022

Konu : ICS COVID-19 Güncel Duyurusu

Sirküler No: 353

Sayın Üyemiz,

Uluslararası Deniz Ticaret Odası (International Chamber of Shipping-ICS) tarafından gönderilen 20 Nisan 2022 tarihli Ek-1'de sunulan yazıda, Dünya Sağlık Örgütü'nün (World Health Organization-WHO) yayınladığı, ülkelerden bildirilen "Koronavirüs" (COVID-19) akut solunum yolu hastalık vaka tablosunu içeren güncel istatistik bilgileri Odamıza iletilmiştir.

Bahse konu yazıda, 14 Nisan 2022 tarihi itibarıyla toplam 500.186.525 adet COVID-19 vakası tespit edildiği, 18 Nisan 2022 tarihi itibarıyla toplam 11.307.908.653 doz aşı yapıldığı belirtilmekte olup, rapor tarihi itibarıyla en fazla COVID-19 vakası tespit edilen ilk 12 ülke, COVID-19 salgını vaka ve vefat sayılarının olduğu tablo ve ülkeler hakkında güncel bilgiler bulunmaktadır.

Yazıda ayrıca, ICS tarafından yayınlanan ve COVID-19 pandemisinin denizcilik sektörü üzerindeki makro ve mikro etkilerini araştıran "COVID-19'un Denizcilik, Denizciler ve Denizcilik İşgücü Piyasaları Üzerindeki Etkisi" başlıklı rapora ait bilgilerin yanı sıra aşağıdaki konulara yer verilmektedir.

1. Uluslararası seyahat için COVID-19 testi gereksinimlerine yönelik bilgilerin yer aldığı ülkeler ait liste Ek-2'de,
2. Dünya Sağlık Örgütü tarafından oluşturulan, COVID-19'a yönelik haftalık epidemiyolojik güncel bilgilerin bulunduğu bültenin Ek-3'te,
3. COVID-19 pandemisi çerçevesinde yolcu feribotlarında COVID-19 vakalarına hazırlık ve müdahaleye yönelik tavsiyelerin bulunduğu rehber Ek-4'te,
4. Küresel ölçekte aşılama bilgilerinin sunulduğu rapor Ek-5'te yer almaktadır.

Bilgilerinize arz/rica ederim.

Saygılarımla,

*e-imza*İsmet SALİHOĞLU
Genel Sekreter

Ek:

- 1- ICS'in 20.04.2022 Tarihli Yazısı (2 sayfa)

Bu belge, 5070 sayılı Elektronik İmza Kanuna göre Güvenli Elektronik İmza ile İmzalanmıştır.

Evrakı Doğrulamak İçin : <https://ebys.denizticaretodasi.org.tr/enVision/Dogrula/BSU6MBV54>
Bilgi için: Alper Mergen Telefon: 0212 252 01 30/246 E-Posta: alper.mergen@denizticaretodasi.org.tr
Meclis-i Mebusan Caddesi No:22 34427 Fındıklı-Beyoğlu-İSTANBUL/TÜRKİYE
Tel : +90 (212) 252 01 30 (Pbx) Faks: +90 (212) 293 79 35
Web: www.denizticaretodasi.org.tr E-mail: iletisim@denizticaretodasi.org.tr KEP: imeakdto@hs01.kep.tr





- 2- Uluslararası Seyahat İçin COVID-19 Test Gereksinimleri Tablosu (17 sayfa)
- 3- Haftalık Epidemiyolojik Güncel Bilgiler Raporu (22 sayfa)
- 4- Yolcu Feribotlarında COVID-19'a Yönelik Hazırlık ve Müdahale Rehberi (25 sayfa)
- 5- Aşılama Raporu (5 sayfa)

Dağıtım:**Gereği:**

- Tüm Üyeler (WEB sayfası ve e-posta ile)
- İMEAK DTO Şube ve Temsilcilikleri
- Türk Armatörler Birliği
- S.S. Armatörler Taşıma ve İşletme Kooperatifi
- GİSBİR (Türkiye Gemi İnşa Sanayicileri Birliği Derneği)
- Gemi, Yat ve Hizmetleri İhracatçıları Birliği
- VDAD (Vapur Donatanları ve Acenteleri Derneği)
- TÜRKLİM (Türkiye Liman İşletmecileri Derneği)
- KOSDER (Koster Armatörleri ve İşletmecileri Derneği)
- Yalova Altınova Tersane Girişimcileri San.ve Tic.A.Ş.
- UTİKAD (Uluslararası Taşımacılık ve Lojistik Hizmet Üretenleri Derneği)
- Türk Uzakyol Gemi Kaptanları Derneği
- GEMİMO (Gemi Makineleri İşletme Mühendisleri Odası)

Bilgi:

- Yönetim Kurulu Başkan ve Üyeleri
- İMEAK DTO Şube YK Başkanları
- İMEAK DTO Çevre Komisyonu
- İMEAK DTO Meslek Komite Başkanları

Bu belge, 5070 sayılı Elektronik İmza Kanuna göre Güvenli Elektronik İmza ile İmzalanmıştır.



Evrakı Doğrulamak İçin : <https://ebys.denizticaretodasi.org.tr/enVision/Dogrula/BSU6MBV54>
Bilgi için: Alper Mergen **Telefon:** 0212 252 01 30/246 **E-Posta:** alper.mergen@denizticaretodasi.org.tr
Meclis-i Mebusan Caddesi No:22 34427 Fındıklı-Beyoğlu-İSTANBUL/TÜRKİYE
Tel : +90 (212) 252 01 30 (Pbx) **Faks:** +90 (212) 293 79 35
Web: www.denizticaretodasi.org.tr **E-mail:** iletisim@denizticaretodasi.org.tr **KEP:** imeakdto@hs01.kep.tr





Shaping the Future of Shipping

Walsingham House
35 Seething Lane
London
EC3N 4AH

Tel +44 20 7090 1460

info@ics-shipping.org | [ics-shipping.org](https://www.ics-shipping.org)

This Circular and its attachments (if any) are confidential to the intended recipient and may be privileged. If you are not the intended recipient, you should contact ICS and must not make any use of it.

20 April 2022

COVID-19(22)10

**TO: LABOUR AFFAIRS COMMITTEE
ALL MEMBERS & ASSOCIATE MEMBERS
BIWEEKLY MEMBERS MEETING PARTICIPANTS
INTERNATIONAL ASSOCIATION GROUP PARTICIPANTS**

COVID-19 UPDATE AS OF 20th April 2022

Action Required: Members are invited to note that globally, as of, 14 April 2022, there have been 500,186,525 confirmed cases of COVID-19, including 6,190,349 deaths, reported to WHO. As of 18 April 2022, a total of 11,307,908,653 vaccine doses have been administered.

SITUATION IN NUMBERS BY WHO REGION

	Cases	Deaths
Global	500,186,525	6,190,349
Americas	151,691,843	2,711,779
Europe	209,507,148	1,964,786
South-East Asia	57,506,064	781,487
Eastern Mediterranean	21,653,390	341,621
Africa	8,676,141	219,313
Western Pacific	51,151,175	171,350

	TOP 12 COUNTRIES	MOST CASES YESTERDAY	HIGH FATALITIES YESTERDAY
1	USA	Germany	USA
2	India	Korea	UK
3	Brazil	France	Korea
4	France	Italy	Germany
5	Germany	Japan	Russia
6	UK	Australia	Finland
7	Russia	UK	Brazil
8	Korea	Finland	Italy
9	Italy	USA	France

10	Turkey	Vietnam	Norway
11	Spain	Thailand	Thailand
12	Vietnam	Brazil	Philippines

The Perfect Storm: The Impact of COVID-19 on Shipping, Seafarers and Maritime Labour Markets- https://www.ics-shipping.org/wp-content/uploads/2022/04/The-Perfect-Storm_HSBA-and-ICS.pdf

The research featured in this report investigates macro and micro-effects of the COVID-19 pandemic on the shipping industry. More specifically, it assesses:

- The economic and regulatory responses to the pandemic, particularly those enacted by national governments.
- The impact of national public health policies, implemented to contain and mitigate COVID-19, on shipping labour markets and the supply chain; and
- The effects of national policies on the international logistics network and the shipping industry, as well as on shipping's longstanding commitment and contributions towards the United Nations (UN) Sustainable Development Goals (SDGs), including in the context of global shipping employment.

The devastating impact of the pandemic was unforeseen, but its potential effects were not entirely unexpected, and the shipping industry had highlighted these previously, including through submissions to UN fora, following the outbreaks on Ebola, Avian Flu and SARS.

This report highlights some key lessons learned which included:

- Stronger, long-term cooperation between industry and governments is required to address the increasing challenges and changes to maritime trade and labour markets, whilst national economies navigate towards recovery.
- Government-industry collaboration is essential to build back better.
- Competent national government ministries and agencies should collaborate with intergovernmental organisations and liaise more closely with industry, to improve the treatment of seafarers in the event of travel restrictions; and
- Unless meaningful changes are implemented, the same issues will re-emerge.

Findings and conclusions are outlined in the report, alongside a set of recommendations in the form of "calls to action" (CTAs).

[COVID-19\(22\)10 -Annex 1- covid testing requirements for international travel](#)

[COVID-19\(22\)10 -Annex 2 - Weekly Epidemiological Update](#)

[COVID-19\(22\)10 -Annex 3 - advice passenger ferry](#)

[COVID-19\(22\)10 -Annex 4 - Vaccination Report](#)

Ondrilla Fernandes
Employment Affairs Advisor

Open for International Travel Without COVID-19 Testing Required (82 Member States)

Updated on 5 April, 2022

Albania	<p>Effective September 6, 2021, all passengers who transit or apply to enter the Republic of Albania, ages six or older must meet one of the following three conditions:</p> <ol style="list-style-type: none"> 1) Submit a vaccination passport where the date of full vaccination is no later than two weeks from the date of entry in Albania. 2) Have a negative PCR test within 72 hours or a rapid antigen test within 48 hours, or 3) Alternatively, may provide documentation from a licensed health care provider of having recovered from COVID-19 in the 6 months preceding travel. <ul style="list-style-type: none"> • Citizens residing in Albania who return and do not have one of the above documents must self-isolate themselves for 10 days and inform the health authority to perform a test at the end of the isolation period. 	https://al.usembassy.gov/updates_covid19/
Algeria	<p>From 20 March 2022, entry to Algeria requires evidence of a vaccine pass issued less than nine months before travel, or a negative PCR test taken less than 72 hours before the time of arrival for unvaccinated people, and those whose vaccine pass was issued over nine months before travel.</p>	https://www.gov.uk/foreign-travel-advice/algeria/entry-requirements
Andorra	<p>The Andorran authorities have taken no measures to close the borders and movement into the country. The Government of Andorra is therefore currently applying no restrictions on entering the country, nor on the movement of people and vehicles around its te</p>	https://visitandorra.com/en/covid-19-in-andorra/faq-if-you-re-spending-a-few-days-in-andorra/
Antigua and Barbuda	<p>Fully vaccinated arriving passengers are not required to present a PCR/Rapid Antigen Test negative result to be permitted entry into Antigua and Barbuda, (unless they show symptoms of possible infection). This includes transiting passengers.</p>	https://visitantiguabarbuda.com/travel-advisory/
Armenia	<ol style="list-style-type: none"> 1) Either a COVID-19 PCR test certificate with a negative result taken within the previous 72 hours, or 2) Certificate of complete vaccination against COVID-19, in dosages defined according to the instructions for use of the given vaccine. 	https://www.gov.am/en/covid-travel-restrictions/
Austria	<p>To enter Austria, proof of vaccination/recovery or a negative Covid test is mandatory.</p>	https://www.austria.info/en/service-and-facts/coronavirus-information/entry-regulations
Bahrain	<p>Starting from 20 February 2022, All passengers arriving in the Kingdom of Bahrain do not need to conduct a PCR test upon arrival.Cancellation of the precautionary quarantine for all passengers arriving in the Kingdom of Bahrain.</p>	https://healthalert.gov.bh/en/article/entry-procedures-through-kingdom-of-bahrain
Bangladesh	<ol style="list-style-type: none"> 1) Vaccinated with Covid-19 vaccine:Travelers completed full dose (single/double dose as applicable for a full dose) of WHO approved Covid-19 vaccine can enter Bangladesh with the official proof of certification of vaccination and no RT PCR based COVID-19 negative certificate is required. 2) Not vaccinated with Covid-19 vaccine:Travelers without having full dose (single/double dose as applicable for a full dose) of Covid-19 vaccine can enter Bangladesh if they possess RT PCR based COVID-19 negative certificate done within 72 hours of departure time 	http://caab.gov.bd/circul/FSR%2001-2022.pdf
Belgium	<p>For all trips to Belgium, people who do not have their main residence in Belgium are required to present a valid vaccination certificate or a negative test result. No additional rules apply (neither testing nor quarantine. This rule does not apply to shor</p>	https://www.info-coronavirus.be/en/faq/#006
Belize	<p>Effective March 1, 2022, fully vaccinated travellers no longer require a negative test but must show proof of vaccination for entry into Belize's airport, land borders or sea ports.</p>	https://belizetourismboard.org/news-and-gallery/belize-covid-19-travel-updates/#1644266913182-1e31ba74-2de7

Bosnia and Herzegovina	<p>A foreigner who meets the conditions for entry into Bosnia and Herzegovina prescribed by the Aliens Act may enter Bosnia and Herzegovina if he presents one of the following evidence at the border crossing point of Bosnia and Herzegovina:</p> <p>1)negative finding of a PCR test or rapid antigen test for SARS-CoV-2, which is not more than 48 hours old if it comes from european countries, and if it comes from other countries, which is not more than 72 hours old until arrival at the border crossing of Bosnia and Herzegovina,</p> <p>2)vaccination certificate for a person who received a second dose of the COVID-19 vaccine more than 14 days ago from the date of arrival at the border crossing of Bosnia and Herzegovina or was vaccinated with one dose 14 days ago and more than the day of arrival at the border crossing of Bosnia and Herzegovina, in the case of a vaccine received in one dose,</p> <p>3)a certificate issued by a doctor that he has survived COVID-19 in the past period from 14 days to 180 days from the date of arrival at the border crossing of Bosnia and Herzegovina.</p>	http://www.granpol.gov.ba/Content/Read/76?title=Stranci
Bostswana	<p>Fully vaccinated travelers with proof of a booster dose do not need to present negative COVID-19 test results.Others are required to show proof of a negative PCR COVID-19 test within 72 hours of travel and must submit to vaccination on arrival at the Port of Entry.</p>	https://bw.usembassy.gov/covid-19-information/
Brazil	<p>Fully vaccinated travelers are not required to present proof of negative COVID-19 test results before traveling to Brazil.</p>	https://www.in.gov.br/en/web/dou/-/portaria-interministerial-n-670-de-1-de-abril-de-2022-390351794
Bulgaria	<p>"Valid EU digital COVID certificate for examination" or a document showing a negative result of a rapid antigen test carried out up to 72 hours before entering the country , or a negative result of the polymerase chain reaction carried out up to 48 hours before entering the country.</p>	https://coronavirus.bg/bg/az-sum/zavrashtam-se-bulgaria
Cambodia	<p>If you're fully vaccinated, you only need to present proof of vaccination to enter Cambodia.The Ministry of Health on March 17 announced that fully vaccinated inbound passengers will no longer be required to show a PCR test result proving they are negative for the coronavirus 72 hours prior to their arrival in Cambodia.</p>	https://www.gov.uk/foreign-travel-advice/cambodia/entry-requirements#entry-rules-in-response-to-coronavirus-covid-19
Canada	<p>Starting April 1, 2022, pre-entry tests are no longer required for fully vaccinated travellers entering Canada by land, air or water. You must still use ArriveCAN within 72 hours before your arrival to Canada. Unvaccinated and partially vaccinated children 5 years of age or older must provide a valid pre-entry test result, even if they are accompanying a fully vaccinated adult.</p> <p>Children who are less than 5 years old are not required to test, regardless of their vaccination status.</p>	https://travel.gc.ca/travel-covid/travel-restrictions/flying-canada-checklist/covid-19-testing-travellers-coming-into-canada?utm_campaign=gac-amc-
Cape Verde	<p>Cape Verde's air and sea borders are open. You'll need to complete an International Travel Form on the Covid19.cv website and show one of the following to enter the country:</p> <p>1.a valid COVID-19 vaccination certificate showing you are fully vaccinated</p> <p>2.a COVID-19 recovery certificate showing you recovered from COVID-19 no more than 90 days before you travel</p> <p>3.a COVID-19 PCR test done 72 hours before departure or an antigen test (Ag-RDT) done 48 hours before departure</p>	https://www.gov.uk/foreign-travel-advice/cape-verde/entry-requirements
Colombia	<p>International travelers who entered Colombia should not present a negative PCR test to enter the country. They only have to do their Check-Mig registration 24 hours before their flight at the following link: migracioncolombia.gov.co.</p>	https://colombia.travel/en/covid-19-information
Costa Rica	<p>The Government of Costa Rica does not require tourists entering by air, land or sea to present a negative COVID-19 test, nor quarantine upon arrival.</p>	https://www.visitcostarica.com/en/costa-rica/planning-your-trip/entry-requirements

Croatia	Passengers coming directly from the countries and/or regions of the European Union, i.e. countries and/or regions of the Schengen area and Schengen associated countries, regardless of their citizenship, will be allowed entry into the Republic of Croatia i	https://mup.gov.hr/uzg-covid/english/286212
Czech Republic	As of December 27th, 2021, the rules for entry into the Czech Republic will be tightened for foreign nationals. Foreign nationals (who are entitled to enter) travelling to the Czech Republic will have to present a negative PCR test result before the travel. This obligation applies also to vaccinated persons and persons who recovered from COVID-19 in the last six months. It applies to travels from all countries regardless of the level of risk of the COVID-19 transmission. Persons who are not vaccinated or who did not recover from COVID-19 in the last six months, have to undergo a PCR test between 5th and 7th day after arrival. This requirement does not apply to persons vaccinated with the COVID booster shot, children under 12 and children in the age group 12-18 years who are fully vaccinated (booster shot not required). Other exceptions are specified in the protective measure.	https://www.mvcr.cz/mvcren/article/as-of-december-27th-2021-the-rules-for-entry-into-the-czech-republic-will-be-tightened-for-foreign-nationals.aspx
Denmark	If you are vaccinated or previously infected: There are no travel restrictions when entering Denmark. If you are not vaccinated or previously infected: There are no travel restrictions if you enter from EU or Schengen countries. If you enter from a country outside EU and Schengen, you must take a test at a test centre within 24 hours upon entry (self-tests are not valid for this purpose).	https://en.coronasmitte.dk/travel-rules/covidtravelrules
Dominican Republic	Most travelers (for example, from United States, Canada, Argentina, Mexico, Chile, Colombia, Panama, France, Germany, Italy, Russia, Puerto Rico, etc.) do not need to present a negative COVID-19 test upon arrival to enter the Dominican Republic.	https://www.godominicanrepublic.com/newsroom/coronavirus/
Egypt	1) All passengers travelling to Egypt (including Egyptians) must be in possession of negative PCR test certificate for COVID-19 with Quick Response (QR) code, taken at a maximum of 72 hours before their flight departure time. 2) It is reported that the Government of Egypt will also allow travelers to enter with proof of a WHO-approved COVID-19 vaccination. The vaccination certificate must comply with the rules of the issuing country and contain a QR code. Note: most U.S. vaccination cards, including those issued by the Centers for Disease Control, do not include a QR code required by the Government of Egypt, and, as a result most U.S. vaccination cards are not accepted by Egyptian authorities. 3) Except for the Janssen / Johnson & Johnson vaccine, two doses are always required. The Egyptian authorities do not recognize vaccination of a recovered person with just one vaccination dose.	https://eg.usembassy.gov/u-s-citizen-services/covid-19-information/
El Salvador	The General Directorate of Migration and Aliens informed the entire Salvadoran and foreign population that, as of November 17, 2021, El Salvador eliminates the sanitary requirements for entry into the national territory related to the presentation of negative	https://www.mitur.gob.sv/el-salvador-flexibiliza-las-medidas-sanitarias-para-ingresar-al-pais/
Estonia	If you are vaccinated against COVID-19 or have had the disease, you must be prepared to submit a respective certificate. In case you don't have a certificate, you must present or do a coronavirus test. The obligation of testing and isolation depends on the level of the risk in Estonia at the time of travelling and the country from which you arrive. All people with symptoms of the disease must self-isolate.	https://kriis.ee/en/travelling-crossing-state-border/travelling-estonia/testing-covid-certificates-self-isolation
Finland	There are no entry restrictions when arriving from these countries (EU and Schengen countries, green list countries and regions). Person may be granted entry into Finland from any country if they present: 1) a certificate of a complete and valid vaccination series Link to an external website, Opens in a new tab. At least 7 days must have passed since the last vaccine dose has been received OR 2) a single certificate that the person has recovered from covid-19 virus and has gotten one dose of vaccine. It is equated to a complete covid-19 vaccination series. OR 3) EU digital COVID certificate Link to an external website, Opens in a new tab that proves the person has recovered from covid-19 within 6 months. 4) All the above-mentioned requirements apply to persons born in 2006 or earlier.	https://raja.fi/en/guidelines-for-border-traffic-during-pandemic#3externalborder

France	Since February 12, 2022, 1) For travelers vaccinated within the meaning of European regulations, no more tests is required on departure. Proof of a complete vaccination schedule becomes sufficient to arrive in France, regardless of the country of origin, as was the case before the distribution of the Omicron variant.2) For unvaccinated travellers, the obligation to present a negative test to travel to France remains, but the measures on arrival (test, isolation) are lifted when they come from countries on the "green" list, characterized by a moderate circulation of the virus.3) When unvaccinated travelers come from a country on the "orange" list, they must continue to present a compelling reason justifying the need for them to come to mainland France and may still be subject to a random test on arrival. Travelers who test positive will have to isolate themselves, in accordance with the recommendations of the Health Insurance.	https://www.interieur.gouv.fr/covid-19-international-travel
Gabon	Travelers are not required to take a negative COVID-19 test (PCR and/or serology) result.	https://ga.usembassy.gov/u-s-citizen-services/coronavirus-update/
Gambia	Vaccinated travellers are not required to have a negative COVID-19 test result before arrival in the Gambia.	https://gm.usembassy.gov/u-s-citizen-services/covid-19-information/
Georgia	From March 1, 2022, citizens of all countries, traveling by air, land, or sea from any country may enter Georgia if they present the document confirming the full course of any COVID-19 vaccination OR present a negative PCR test taken within 72 hours (96 h)	https://raja.fi/en/guidelines-for-border-traffic-during-pandemic#3externalborder
Germany	People who are fully vaccinated against the coronavirus (SARS-CoV-2) with vaccines approved by the European Medicines Agency (EMA) (or equivalents of these vaccines used in non-EU countries) can enter Germany from non-EU countries (with the exception of China due to the lack of possibility of mutual entry). Such individuals can also enter Germany for the purpose of visits or tourism. Fully vaccinated individuals as defined above can apply for visas at a German mission abroad if required.	https://www.bmi.bund.de/SharedDocs/faq/EN/topics/civil-protection/coronavirus/travel-restrictions-border-control/IV-restrictions-applying-to-air-and-sea-travel-outside-of-europe/what-rules-apply-for-fully-vaccinated-people.html
Ghana	All persons 18 years-old and above arriving in Ghana will be required to provide evidence of full vaccination for a COVID-19 vaccine. Citizens of Ghana and foreign residents who are not fully vaccinated, will, however, need to provide a negative PCR test result no more than 48-hours old, will undergo an antigen test upon arrival in Ghana, and will be offered vaccination upon arrival. Ghana's Foreign Missions have been instructed to make vaccination a requirement for visa acquisition. A person is said to be fully vaccinated when he or she has taken the full dose of vaccines approved and registered by the Food and Drugs Authority (FDA) of Ghana. You need two doses of AstraZeneca, Pfizer, Moderna, or Sputnik V to be declared as fully vaccinated. One dose of Johnson and Johnson vaccine is required to be declared fully vaccinated.	https://gh.usembassy.gov/ghana-covid-19-information/
Guatemala	Effective March 11, 2022, the Government of Guatemala has imposed the following COVID-related entry requirements: Passengers who are Guatemalan citizens, foreigners, residents, accredited diplomats, or airline crew whose final destination is Guatemala must present one of the following: For all travelers aged 12 and over: Evidence of receiving a complete two-dose COVID-19 vaccination course (or one dose for Johnson & Johnson), with the final dose being administered at least two weeks before beginning your trip to Guatemala; or For all travelers aged 10 and over: Proof of a negative COVID-19 PCR or antigen test from a certified lab conducted no more than three (3) days prior to check in at the airport or arrival at the land border.	https://gt.usembassy.gov/alert-covid-19-2/
Honduras	Effective June 2, 2021, The Government of Honduras has updated its requirements for entry into the country. All travelers must still complete the online pre-check form, but fully vaccinated individuals with their original vaccination certificate are no longer required to provide proof of a negative COVID test upon entry in Honduras. 1)Proof of Full Vaccination: Passengers must provide the original vaccination certificate documenting complete COVID-19 vaccination (two doses of most vaccines; one dose of Johnson & Johnson) with at least 14 days after receipt of the final dose. 2)COVID-19 Test: Passengers who cannot provide proof of full vaccination must hand-carry the negative test results for a PCR, Antigen or ELISA COVID-19 test taken less than 72 hours before entry into Honduras. Passengers must show the test results at check-in.	https://hn.usembassy.gov/covid-19-information/

Hungary	On 7 March 2022, Government Decree No. 77 of 2022 (m. 4.) on the termination of certain safety measures against the coronavirus pandemic entered into force, which repealed Government Decree No. 408 of 2020 (VIII. 30.) on travel restrictions during the period of state of epidemiological preparedness.	https://www.police.hu/en/content/for-the-attention-of-travelers
Iceland	There are no COVID-19 restrictions in Iceland, either domestically or at the border.	https://island.is/en/p/entry
India	Fully vaccinated travelers from 88 countries/regions with COVID-19 vaccination certificates issued from these countries are not required to provide proof of a negative COVID-19 test result before traveling to India. Travelers must upload their COVID-19 vaccination certificate through the Air Suvidha portal.	GuidelinesforInternationalarrivalsupdateon10thFebruary2022.pdf (mohfw.gov.in)
Ireland	Passengers from overseas to Ireland with:an accepted proof of vaccination, or proof of recovery from COVID-19 in the prior 6 months do not have to show an additional pre-departure COVID-19 test result.	https://www.gov.ie/en/publication/77952-government-advice-on-international-travel/#passengers-arriving-into-ireland-from-outside-eueea-eu-iceland-lichtenstein-and-norway
Italy	With the following Ordinance of the Minister of Health, as of 1 March 2022 (up to 31 March 2022),the Country lists are eliminated and the rules regulating entry into the national territory are now standardized. Entry into Italy shall be authorized upon the submission of: – the Passenger Locator Form (PLF) in digital or paper format; – the Covid-19 Vaccine Passport (vaccination certificate, recovery certificate or negative molecular or antigen test) or any other equivalent vaccination certificate recognized.	https://www.esteri.it/en/ministero/normativaonline/focus-cittadini-italiani-in-rientro-dall-estero-e-cittadini-stranieri-in-italia/
Jordan	The government announced on 17 Feb 2022 that travelers to the Kingdom, whether Jordanians or foreigners, are no longer required to undergo a PCR test upon arrival to the Kingdom via any entry point.	http://international.visitjordan.com/MediaCenter/ShowNews/33#news
Kenya	All travelers arriving into Kenya through any point of entry must have a certificate of COVID 19 vaccination.All travelers coming to Kenya who are fully vaccinated shall be exempt from the requirement of a PCR test.	https://www.kcaa.or.ke/sites/default/files/covid-19/documents/COVID-19 TRAVEL REQUIREMENTS 13.3.2022.pdf
Kuwait	1)Fully vaccinated arriving travelers will no longer need a pre-departure or arrival PCR test, and they will no longer have any quarantine requirements. 2)Unvaccinated travelers must carry a negative PCR test within at least 72 hours before the flight's departure, they must stay in home quarantine for seven days after arrival, and they must conduct a PCR test on the seventh day to end the quarantine.	https://kw.usembassy.gov/covid-19-information/
Kyrgyzstan	Travelers must provide a negative PCR test. PCR tests must be taken no more than 72 hours before arrival into Kyrgyzstan. As of February 11, 2021, travelers may show their original vaccine card showing proof of vaccination against COVID-19 instead of a negative PCR test.	https://kg.usembassy.gov/covid-19-information/
Latvia	Fully vaccinated travelers are required to have a vaccination certificate issued in the EU Member States and EEA countries, the Swiss Confederation, or the United Kingdom, United States, Australia, New Zealand, or Canada. Travelers arriving from countries that are not the EU Member States and EEA countries, the Swiss Confederation, and the United Kingdom, the United States, Australia, New Zealand, or Canada must have a vaccination certificate in English or in the language of the exit State. These documents may be presented in paper or electronic form.	https://www.spkc.gov.lv/lv/valstusaslimestibas-raditaji-ar-covid-19-0
Lebanon	Fully vaccinated travelers are not required to have a negative COVID-19 test result before traveling to Lebanon.	https://www.moph.gov.lb/en/MoPHPASS

Lithuania	<p>Testing requirement upon entry to Lithuania will not apply in the case of:</p> <ol style="list-style-type: none"> 1) persons returning or arriving from the countries of the European Economic Area, the Swiss Confederation, the United Kingdom of Great Britain and Northern Ireland, the Principality of Andorra, the Principality of Monaco, the Republic of San Marino and the Holy See (Vatican City State); 2) crew members, who are employed in Lithuanian companies engaged in international commercial transportation, or who carry out international commercial transportation by all the means of transport, and seafarers; those transiting through Lithuania; 3) Those holding a document from a medical establishment that proves the recovery of COVID-19 disease (coronavirus infection) confirmed by a positive result of a SARS-CoV-2 PCR test, where maximum 180 days have passed of the positive testing before the return/arrival in the Republic of Lithuania (a serological antibody test result will not be recognised). 4) those who hold a document issued by a medical establishment, a country-specific vaccination certificate, or an international vaccination certificate confirming: 5) foreigners entering the Republic of Lithuania for special humanitarian reasons, at the permission of the Minister for the Interior of the Republic of Lithuania (they will have, within 24 hours of the arrival in Lithuania, to contact a medical facility that performs COVID-19 tests to book a testing appointment and take a test in due time). 	https://nvsc.lrv.lt/en/information-on-covid-19/for-arrivals-from-abroad
Luxembourg	<p>Additional conditions apply for any travel by air transport to the Grand Duchy. Persons over the age of 12 years and 2 months, authorised to enter Luxembourg (regardless of nationality), must present, before boarding a flight to Luxembourg: 1) either a vacc</p>	https://covid19.public.lu/en/travellers/visiting-luxembourg.html
Maldives	<p>Effective from March 13th, 2022, PCR is not mandatory to enter the Maldives.</p>	https://immigration.gov.mv/faq-for-visiting-the-maldives/
Malta	<p>Fully vaccinated travelers arriving from United States (see 104 additional countries) are not required to have a negative COVID-19 test result. Travelers must have a valid vaccination certificate that is accepted by the Maltese Ministry of Health.</p>	https://deputyprimeminister.gov.mt/en/health-promotion/covid-19/Pages/travel.aspx
Mexico	<p>Travelers are not required to provide proof of a negative COVID-19 test result before traveling to Mexico. Travelers who are connecting through a different country on the way to Mexico should check the testing requirements of the country they are transiting through.</p>	https://embamex.sre.gob.mx/eua/index.php/en/2016-04-09-20-40-51/tourism/1760-mexico-s-covid-19-monitoring-system
Monaco	<p>Anyone aged 16 or over, whatever their nationality, who enters the Principality and comes from a foreign country classified in the green zone must present:</p> <ol style="list-style-type: none"> 1) Either the negative result of a PCR or antigen test of less than 24 hours 2) Or a complete vaccination; 3) Or proof of a covid19 recovery certificate: positive PCR test older than 11 days and less than 6 months 	https://covid19.mc/en/travel/i-come-from-abroad/
Mongolia	<p>COVID-19 related restrictions for entry have been lifted. Negative COVID-19 PCR tests before and after arrival are no longer required.</p>	https://www.gov.uk/foreign-travel-advice/mongolia/entry-requirements#entry-rules-in-response-to-coronavirus-covid-19
Montenegro	<p>Travelers who received a full course of vaccination for COVID-19 with a valid certificate are not required to have a negative COVID-19 test on arrival in Montenegro.</p>	https://wapi.gov.me/download/5c8a573a-0aa6-4b05-b93c-ac3f88206a72?version=1.0
Namibia	<p>Effective March 17, 2022, fully vaccinated travelers are no longer required to produce a negative PCR test result upon arrival at a Namibian Points of Entry, but are instead required to present an authentic, valid vaccination card at Point of Entry.</p>	https://na.usembassy.gov/covid-19-information/

Nepal	Effective March 10,2022, passengers entering Nepal from abroad by air or land must submit a certificate of full vaccination against COVID-19.Passengers who fail to submit such certificate will have to submit the certificate with nagative report of COVIS-19 test(RTPCR, True NAAT, Gene Xpert) within 72 hours of starting the journey.	https://www.immigration.gov.np/post/notice-5
Nertherlands	As of 23 March, travellers to the Netherlands coming from within the EU or the Schengen area will no longer require a test, proof of recovery or proof of vaccination.The rules will also be lifted for nationals of EU countries travelling to the Netherlands from countries outside the EU and the Schengen area. Everyone travelling to the Netherlands is advised to do a self-test immediately after arrival and again on day 5.Non-EU nationals remain subject to an EU entry ban. Exemptions apply in several cases, however, such as for people travelling from 'safe' countries, people who are vaccinated or who have recovered from coronavirus, and people travelling for certain purposes.	https://www.government.nl/latest/news/2022/03/15/further-easing-of-coronavirus-measures
North Macedonia	Fully vaccinated travelers are not required to provide proof of a negative COVID-19 test result before traveling to Northern Macedonia. All passengers coming from the medium- and high-risk countries must be in self-isolation for 14 days in their homes and to report to the authorities should they feel any symptoms.	https://koronavirus.gov.mk/en/seek-help-or-report-irregularities/application-for-people-returning-from-travels
Norway	There are no longer special requirements for entry into Norway due to the corona situation. The same rules as before the corona pandemic apply now.	https://www.udi.no/en/corona/about-the-corona-situation/
Oman	Non-citizen travelers aged 18 and above traveling to the Sultanate of Oman are required to present a vaccination certificate indicating that they have received at least two doses of the approved COVID-19 vaccine at least 14 days before traveling.	https://www.omanairports.co.om/news/update-on-travel-restrictions-related-to-covid-19/
Pakistan	Pre-boarding negative PCR has been abolished for fully vaccinated inbound travelers. However, non-vaccinated individuals over 12 years will require pre-boarding negative PCR (72 hours old)	https://storage.covid.gov.pk/uploads/policies/Revised%20Inbound%20Policy.pdf
Panama	Visitors from all countries are welcome to visit Panama, however, non-vaccinated travelers or travelers with less than 2 (two) doses will have to present a negative COVID-19 test for entry.	https://www.tourismpanama.com/plan-your-vacation/advisories/
Peru	Travelers with valid proof of being fully vaccinated are not required to have a negative COVID-19 test result before traveling to Peru.	https://busquedas.elperuano.pe/normas-legales/decreto-supremo-que-modifica-el-decreto-supremo-n-184-2020-decreto-supremo-no-151-2021-pcm-1988484-1/
Poland	People travelling from outside the European Union, from outside the Schengen area, must present a negative COVID-19 test result. The test must be taken regardless of the means of travelling (public transport, individual transport or on foot). Failure to take the test will result in quarantine.	https://www.gov.pl/web/koronawirus/informacje-dla-podrozujacych
Romania	Fully vaccinated travelers are not required to have a negative COVID-19 test result before traveling to Romania.	http://www.cnscbt.ro/index.php/sfaturi-pentru-calatori?limit=10&limitstart=30

San Marino	Health Minister Roberto Speranza has signed a new ordinance establishing, with effect from 1 March, the same rules for arrivals to Italy from all non-European countries as those already in force for European countries. For entry to the national territory,	https://www.salute.gov.it/portale/nuovocoronavirus/dettaglioContenutiNuovoCoronavirus.jsp?lingua=english&id=5412&area=nuovoCoronavirus&menu=vuoto
Saudi Arabia	The Saudi Arabian Government will allow travelers from all countries to enter the Kingdom if they are fully vaccinated (with booster for vaccines with which it is required) with an approved COVID-19 vaccine, including: Pfizer, Moderna, Oxford AstraZeneca, Johnson and Johnson, Sinopharm, Sinovac, Covaxin, Sputnik and Covovax. Negative COVID-19 test (PCR and/or serology) is not required for entry to Saudi Arabia.	https://sa.usembassy.gov/u-s-citizen-services/covid-19-information/
Senegal	All travelers to Senegal over the age of two years must present either a: 1) COVID-19 vaccination certificate showing that they were fully vaccinated with AstraZeneca (SK Bioscience or Vaxzevria), Covishield, Janssen J&J, Moderna, Pfizer-BioNTech, Sinovac, or Sinopharm at least 14 days before departure; or 2) A negative COVID-19 PCR or RT-PCR test result issued at most 5 days before arrival. The test result must be in English or French.	https://sn.usembassy.gov/covid-19-information/
Slovakia	Travelers arriving from 63 countries are not required to provide proof of a negative COVID-19 test result before traveling to Slovakia.	https://www.minv.sk/?entry-of-foreigners-into-the-territory-of-the-slovak-republic-during-an-emergency-situation
Slovenia	As of 19 February 2022, restrictions due to Covid-19 no longer apply when entering Slovenia. This means that the RVT (recovered/vaccinated/tested) condition no longer has to be met at the border and travellers will no longer be ordered to quarantine at home.	https://www.gov.si/en/topics/coronavirus-disease-covid-19/border-crossing/
South Africa	All international travellers arriving at the Ports of Entry who are- (i) fully vaccinated must upon arrival at the Port of Entry, produce a valid vaccination certificate; and (ii) unvaccinated must upon arrival at the Port of Entry, provide a valid certificate of a negative COVID-19 test, recognised by the World Health Organisation, which was obtained not more than 72 hours before the date of travel.	https://www.gov.za/covid-19/individuals-and-households/travel-coronavirus-covid-19
Spain	Vaccinated travelers are not required to have a negative COVID-19 test result before traveling to Spain. Travelers under the age of 12 are exempted from showing proof of vaccination or pre-travel negative test results.	https://www.sanidad.gob.es/en/profesionales/saludPublica/ccayes/alertasActual/nCov/spth.htm
Sri Lanka	Fully Vaccinated travellers are exempted from pre-departure COVID-19 PCR/ Rapid Antigen tests from 1st March 2022.	https://srilanka.travel/helloagain/
Sweden	The ban on entry to Sweden from countries outside the EU/EEA will not be extended and will cease to apply on 1 April 2022. This also means that the requirement to present vaccination and test certificates when entering Sweden will be removed.	https://www.government.se/press-releases/2022/03/sweden-to-lift-ban-on-entry-from-all-countries/
Switzerland	Currently you do not have to present a negative test result to enter Switzerland. Note that the airline or long-distance bus company can nevertheless demand a test on boarding. For this reason you should find out directly from the airline or long-distance bus company what rules they apply.	https://www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/novel-cov/empfehlungen-fuer-reisende/quarantaene-einreisende.html#-924144951

Tanzania	<p>Travelers entering URT including Tanzanians, returning residents and those in transit through land borders who are;</p> <p>a. Fully vaccinated travelers will be exempted from both RT PCR and Rapid Antigen Test requirements. Travelers will be required to present a valid vaccination certificate with QR code for verification upon arrival. The only accepted vaccines are those which have been approved by the URT and the World Health Organization.</p> <p>b. Not fully vaccinated, unvaccinated and those not eligible for vaccination due to their country policy will be required to present a negative COVID-19 RT- PCR or NAATs certificate with QR code obtained within 72 hours before departure. If travelers originate from countries listed at https://www.moh.go.tz/en/announcements?start=30 or Points of Entry will be tested for COVID 19 upon arrival using a Rapid Antigen Test at their own cost of 10 USD (TZS 23,000) for Tanzania Mainland. If found positive they will be tested with RT- PCR for confirmation, allowed to self-isolate and the results will be sent via email or any other means.</p> <p>c. Not fully vaccinated/unvaccinated and have no negative COVID 19 RT- PCR certificate will be dealt as follows;</p>	https://www.moh.go.tz/en/announcements
Tunisia	<p>From 25th February 2022, Pre-departure Testing is no longer required for vaccinated passengers (over 18). Passengers over the age of 18 who have not been vaccinated or who have not completed their vaccination schedule are required to present a 48h negative RT-PCR test or an antigen (Lateral Flow) test for at least 24 hours at the check-in. They are also subjected to a 5-day self-quarantine.</p>	https://www.discovertunisia.com/en/info-s-pratiques/entry-requirements
Turkey	<p>Effective January 10, 2022, passengers arriving from a country other than these countries (Afghanistan, South Africa, Botswana, Mozambique, Namibia, Zimbabwe, Brazil, Nepal, Sri Lanka, Bangladesh, India , Pakistan, Egypt and Iran) do not need to submit negative PCR /rapid antigen test if;</p> <ol style="list-style-type: none"> 1) passengers younger than 12 years; 2) passengers with a COVID-19 vaccination certificate showing that they were fully vaccinated at least 14 days before arrival; 3) passengers with a COVID-19 recovery certificate issued at most 6 months before arrival; 	https://tr.usembassy.gov/covid-19-information-2/
Uganda	<p>The Ministry of Health would like to inform the public that the mandatory Covid-19 testing of all incoming traveler at Entebbe International Airport upon arrival has been stopped with effect from today, 16 February 2022.</p>	https://www.health.go.ug/2022/02/16/suspension-of-mandatory-covid-19-testing-for-all-incoming-travelers-at-entebbe-airport/
United Arab Emirates	<p>From 26 February 2022, Those coming to the UAE have to make sure to present an approved QR code- accompanied Covid-19 vaccination certificate containing a QR code; unvaccinated travelers have to present an approved negative PCR test result received within 48 hours, or a QR code-accompanied certificate of recovery from a Covid-19 infection obtained within one month from the date of travel. Travelers from the UAE have to follow the requirements of medical examinations and vaccinations in place in their countries of destination.</p>	https://covid19.ncema.gov.ae/en/News/Details/2316
United Kingdom	<p>If you're fully vaccinated, you no longer need to take a COVID-19 test either before or after you arrive in the UK. You still need to complete a passenger locator form.</p> <p>If you are not fully vaccinated, you need to take a pre-departure test. After you arrive, you need to take a PCR test on or before day 2, but you only need to quarantine if it's positive. You still need to complete a passenger locator form.</p>	https://www.gov.uk/coronavirus
Uruguay	<p>Fully vaccinated travelers are not required to present a negative COVID-19 RT-PCR or antigen test result before departure to Uruguay. Unvaccinated travelers need to prove a negative result of SARS-CoV-2 virus detection test (by molecular biology technique PCR- RT or antigen test), performed no more than 72 (seventy-two) hours before the start of the trip, in a laboratory enabled in the country of origin or transit.</p>	https://www.gub.uy/ministerio-salud-publica/comunicacion/publicaciones/requisitos-para-ingreso-uruguay-personas-nacionales-extranjeras

Open for International Travel With Required COVID-19 Testing (79 Member States)

Updated on 5 April, 2022

Angola	Anyone arriving in Angola must present proof of a negative RT-PCR COVID-19 test; passengers may take the test up to 72 hours prior to travel.	https://ao.usembassy.gov/covid-19-information/
Argentina	Travellers must have a negative pre-departure COVID-19 test result. Travelers can have a PCR test result from a test taken a maximum of 72 hours before departure or an antigen test result from a test taken a maximum of 48 hours before departure to Argentina.	https://www.argentina.gob.ar/interior/migraciones/ddji-migraciones
Australia	All inbound travellers must declare their vaccination status to enter Australia. All inbound passengers must provide a negative accepted COVID-19 test result. These tests can be either: 1. A nucleic acid amplification (NAA) test, such as: a. polymerase chain reaction (PCR, or RT-PCR) test b. Transcription mediated amplification c. Loop-mediated isothermal amplification; or a 2. A rapid antigen test (RAT) (also described in some countries as a lateral flow antigen detection test or similar). This must not be confused with a lateral flow antibody detection test. For the purposes of pre-departure testing it must be an antigen test. Serology tests are not accepted.	https://www.health.gov.au/health-alerts/covid-19/international-travel/inbound
Azerbaijan	On the basis of relevant confirming documents and certificate of a negative result of COVID-19 PCR test passed within 72 hours before departure; Children under 1 year of age are not required negative result of COVID-19 PCR test.	https://www.mfa.gov.az/en/category/entry-rules-to-the-republic-of-azerbaijan-during-covid-19-pandemic/covid-19-pandemiyasi-ile-elagedar-azerbaycan-respublikasina-giris-cixis-sertleri
Bahamas	Effective 27 December 2021, any person presenting test results older than three days (72 hours) will not be allowed entry into The Bahamas. The Bahamas has suspended the mandatory COVID-19 RT-PCR testing requirement for vaccinated travellers, which was expected to take effect on 7 January 2022. Rapid Antigen tests will continue to be accepted for fully vaccinated persons.	https://www.bahamas.com/travelupdates
Barbados	ALL travellers into Barbados, inclusive of those deemed fully vaccinated, must travel with an accepted valid negative COVID-19 PCR Test OR Rapid Antigen Test result. Travellers are permitted to travel to Barbados with a valid negative Rapid COVID-19 PCR test OR Rapid Antigen test result done within 1 day prior to arrival in Barbados OR a negative RT-PCR COVID-19 test result done within 3 days prior to arrival.	https://www.visitbarbados.org/covid-19-travel-guidelines-2022
Belarus	all travelers (other than Belarusian citizens and permanent residents) age 6 and above are required to present documentation of a negative PCR test performed within 3 days of entering.	https://by.usembassy.gov/covid-19-information/
Benin	The Government of Benin has announced a new testing protocol and will require all travelers bound for Cotonou by air to present a negative PCR test result. The test must have been taken within 72 hours of arrival in Cotonou.	https://bj.usembassy.gov/info-covid19/
Bolivia	Travellers must have a negative COVID-19 PCR test result. The test must be taken a maximum of 72 hours before departure to Bolivia. Fully vaccinated travelers who recovered from COVID-19 in the last year must take a second PCR test 72 hours after entering Bolivia and self-isolate until a negative result is received.	https://www.minsalud.gob.bo/?start=5
Burkina Faso	Travellers must have a negative COVID-19 PCR (nasal swab) test result in English or French. The test must be taken a maximum of 5 days before arrival.	https://www.sante.gov.bf/detail?tx_news_pi1%5Baction%5D=detail&tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Bnews%5D=251&cHash=fd31c072928bdb394f6ac66ebab5e2fc

Burundi	You do not need to present proof that you have been fully vaccinated to enter Burundi. All travellers must have proof of a negative COVID-19 test issued in the last 72 hours.	https://www.gov.uk/foreign-travel-advice/burundi/entry-requirements
Cambodia	According to the directive, inbound passengers who have had at least two Covid-19 vaccine doses must take a rapid test. If the result is negative, they are free to travel in Cambodia. Should their rapid test result be positive for the Covid-19, a specimen will be taken for a polymerase chain reaction (PCR) test and will undergo virus sequencing. The individual must quarantine for 14 days.	https://www.embassyofcambodiadc.org/covid-19-updates.html
Chile	Negative PCR taken 72 hours before boarding.	https://www.chile.travel/planviajarachile/
Congo	Any traveler departing from Congo's international airports must undergo, no later than 72 hours before departure, a COVID-19 PCR test. Each passenger will be subjected to a COVID19 screening test . Travellers who test positive are placed in strict quarantine, either at home or in a monitoring structure set up by the Government, until their control tests are negated. They cover all the costs associated with it.	https://voyage-congo.com/en/
Cuba	For travelers, whether or not they are residents of Cuba, it will be mandatory: 1)Present a complete vaccination schedule at the point of entry. 2)Show the negative result of a PCR-RT, performed no later than 72 hours before the trip. 3)Random surveillance will be increased, based on the performance of RT-PCR at the border to travelers from high-risk countries.	https://www.mintur.gob.cu/protocolos/
Democratic Republic of Congo	Travelers must have a negative COVID-19 test result. The test must be taken a maximum of 48 hours before arrival to the Democratic Republic of Congo.	https://www.gov.uk/foreign-travel-advice/democratic-republic-of-the-congo/entry-requirements
Djibouti	With effect from 21 June, all passengers arriving in Djibouti who cannot show evidence of having been vaccinated, will have to spend 10 days in quarantine in their own accommodation. Whether arriving by air, land or sea, if you are over 11 years of age, you will also be required to provide a PCR test certificate from the country where you started your journey. The test must be taken within 72 hours of the start of the journey and 120 hours of arrival in Djibouti.	https://www.gov.uk/foreign-travel-advice/djibouti/entry-requirements#entry-rules-in-response-to-coronavirus-covid-19
Dominica	With immediate effect, all travelers entering Dominica can now upload a negative PCR test result from a swab taken within 72 hours prior to arrival OR upload pre-arrival negative Rapid Antigen Test result from a swab taken within 48 hours prior to expected arrival time into Dominica; (not less than 24 hours). The Rapid Antigen Test results must be from an accredited/certified facility. Therefore, NO Rapid Antigen Home Tests or self-administered test results will be accepted.	https://discoverdominica.com/en/travel-advisory-for-dominica
Ecuador	Any traveler over 3 years of age must present a mandatory vaccination certificate with QR code or COVID-19 vaccination card valid with at least 14 days of validity after completing the scheme, or the negative result of an RT-PCR test carried out up to 72 hours prior to boarding to Ecuador. Passengers under 3 years of age will not present these requirements.	https://www.aerpuertoquito.aero/es/protocolo-covid-19.html
Eritrea	Travellers, regardless of whether fully vaccinated or not, must have a negative COVID-19 PCR test result. The test must be taken a maximum of 72 hours before arrival in Eritrea.	https://er.usembassy.gov/covid-19-information/
Eswatini	The Eswatini Ministry of Health issued a travel advisory for those wishing to visit, including the requirement to have a COVID-19 negative test result within 72 hours before entry.	https://www.thekingdomofeswatini.com/travel-advice/

Ethiopia	All passengers traveling to Ethiopia MUST present a negative RT PCR test certificate for COVID-19 before boarding a flight. The certificate validity shouldn't exceed 120 hours on arrival from the date sample is given. Children less than or equal to 12 years of age are exempted from the RT PCR test certificate requiremen	https://www.evisa.gov.et/travel-updates/entry-restrictions-to-ethiopia
Fiji	If you are from or have stayed in a Travel Partner Country for at least 14 days before travel to Fiji, please produce proof of the following at the airport before your departure for Fiji: 1) Vaccinations;2) COVID-19 Tests. Travellers can now submit either a PCR or RAT negative test result to enter Fiji. All tests must be supervised and verified by a medical professional (for more info see below) with a written record provided either digitally or on paper; 3) CFC Hotel Booking & Travel Insurance.	https://www.fiji.travel/articles/frequently-asked-questions-travelling-to-fiji
Greece	Travellers arriving in Greece, during the period from 21.02.2022 until 07.03.2022, holding a European Union Digital Covid Certificate are not obliged to show an extra negative COVID test result upon their arrival. Travellers arriving in Greece from ALL other countries, regardless of their vaccination status or proof of recovery, are required to display a negative molecular test result (PCR) for Covid-19 performed up to 72 hours before the scheduled arrival or a negative Rapid Antigen test result for Covid-19 performed up to 24 hours before the scheduled arrival.	https://travel.gov.gr/#/
Grenada	As of July 31st, 2021 persons entering Grenada either by air or sea must be fully vaccinated with a WHO-approved vaccination. All travellers over the age of five (5) must have a negative Polymerase Chain Reaction (PCR) test or Nucleic Acid Amplification Test (NAAT) taken within 3 days of arrival in Grenada (date of sample collection must be within 3 days of arrival in Grenada) or a negative Rapid Antigen Test taken within 1 day of arrival in Grenada (date of sample collection must be within 1 day of arrival in Grenada). For travellers by sea, the PCR test must be within 72 hours of embarkation from the last port of call before arriving in Grenada.	https://covid19.gov.gd/
Guinea-Bissau	Travelers must have a negative COVID-19 PCR test result. The test must be taken at an accredited institution a maximum of 48 hours before departure to Guinea Bissau.	https://gw.usmission.gov/covid-19-information/
Guyana	From November 1, 2021, the following COVID 19 measures shall apply as travel requirements for entry into Guyana. The measures in the Official Gazette (Extraordinary) of Guyana, 235/2021 is applicable with these variations. The following documents are required before travelling to Guyana 1) Proof of full vaccination 2) Negative SARS-CoV-2 Antigen test not older than 72 hours or a negative SARs-Cov-2 PCR test not older than 72 hours	https://www.health.gov.gy/images/travel_requirement.pdf
Hungary	Can enter Hungary, if the person proves with a document issued in English or Hungarian that (s)he has undergone two molecular biological tests (SARS-CoV-2 tests) within 5 days prior to reporting to entry that meets healthcare professional criteria and was conducted on two occasions in an interval exceeding 48 hours, and such tests did not reveal SARS-CoV-2 coronavirus in his/her body.	https://www.police.hu/en/content/information-on-general-rules-of-border-crossing
India	Fully vaccinated travelers from 88 countries/regions with COVID-19 vaccination certificates issued from these countries are not required to provide proof of a negative COVID-19 test result before traveling to India. Travelers must upload their COVID-19 vaccination certificate through the Air Suvidha portal.	GuidelinesforInternationalarrivalsupdatedon10thFebruary2022.pdf (mohfw.gov.in)
Indonesia	All foreign nationals entering Indonesia must present a negative PCR test issued a maximum of 2 x 24 hours before departure, as well as a fully completed Electronic Health Alert Card (eHAC) for contact tracing purposes. All foreign nationals entering Indonesia must carry out a PCR test upon arrival. Foreign nationals who present a positive PCR test result upon arrival will be transferred to an isolation or treatment facility by the relevant authorities. Consult the Indonesian government COVID-19 website for full details.	https://www.dfa.ie/travel/travel-advice/a-z-list-of-countries/indonesia/
Iran	Travelers must have a negative COVID-19 PCR test result. The test must be taken a maximum of 72 hours before departure. The results must be in English or approved by an Iranian consulate.	https://caa.gov.ir/covid-forms?_gl=1*1ik8cy7*_ga_0NMZLXTZ77*MTY0NjM1OTE5NS40LjEuMTY0NjM1OTI3MS4w

Iraq	The PCR results must be completed less than 72 hours prior to travel to Iraq. In the Iraqi Kurdistan Region requires a negative COVID-19 test within 48 hours of travel or verified evidence of a second dose of a vaccination. Those without either will be required to undertake a PCR test, at their own cost, at the Kurdistan Region airports on arrival.	https://iq.usembassy.gov/covid-19-information/
Jamaica	Effective March 1, 2022, ALL you need to travel to the island is a negative Antigen or PCR test result conducted within 3 days of travel, regardless of your vaccination status. Children under the age of 12 do not need a test result.	https://www.visitjamaica.com/jamaica-cares/
Kazakhstan	The Government of Kazakhstan requires foreign travelers arriving in Kazakhstan to provide a negative COVID-19 PCR test with results dated no more than three days prior to their entry to Kazakhstan.	https://kz.usembassy.gov/covid-19-information/
Liberia	Travelers must have a negative COVID-19 PCR test result from a test taken a maximum of 72 hours before departure and obtained from an accredited laboratory.	https://www.nphil.gov.lr/index.php/liberia-health-ministry-introduces-new-covid-19-protocols-for-travelers/
Libya	Travelers must have a negative COVID-19 PCR test result. The test must be taken a maximum of 72 hours before departure to Libya.	https://ly.usembassy.gov/u-s-citizen-services/covid-19-information/
Malawi	All arriving and departing passengers via air shall be required to produce a negative SARS COV-2 PCR test certificate obtained within 72 hours prior to arrival in or departure from Malawi in addition to any requirements of transiting or final destination countries. Children under age 1 are exempt from testing requirements.	https://mw.usembassy.gov/u-s-citizen-services/covid-19-information/
Malaysia	Effective December 27, 2021, all travelers arriving at Kuala Lumpur International Airport must pay for their mandatory arrival COVID-19 test in advance through a website designated by the Malaysian government	https://my.usembassy.gov/u-s-citizen-services/covid-19-information/
Mali	To enter Mali you need to present a negative COVID test certificate less than 72 hours old. This requirement also applies to vaccinated travellers.	https://www.gov.uk/foreign-travel-advice/mali/entry-requirements
Mauritania	PROOF OF BOTH VACCINATION AND A NEGATIVE PCR TEST ARE REQUIRED FOR ENTRY TO MAURITANIA	https://mr.usembassy.gov/covid-19-information-2/
Mauritius	1) You must be fully vaccinated to freely explore our island and its attractions throughout your holiday COVID-19. testing will be required on arrival (day 0) in Mauritius. 2) Unvaccinated guests must book a 14-night quarantine stay in an official quarantine hotel. To enter Mauritius, you must present a negative PCR test taken within 72 hours before departure. You will have a PCR test on arrival, day 7 and day 14. After a negative PCR test on day 14, you can freely explore the island and move to new accommodation or go home.	https://mauritiusnow.com/
Mongolia	Passengers must have a negative COVID-19 PCR test taken at most 72 hours before departure from the first embarkation point.	https://mn.usembassy.gov/covid-19-information/
Morocco	Starting on February 7, 2022, international flights to Morocco will be allowed to resume and travelers, under certain conditions, will have access to Moroccan territory if they have a vaccination pass and a negative PCR test at least 48 hours before the date of entry to Moroccan territory.	https://www.visitmorocco.com/en/travel-info/covid-19-travel-safely-to-morocco
Mozambique	Testing for COVID-19 may be required on arrival in Mozambique, at your expense.	https://www.gov.uk/foreign-travel-advice/mozambique/entry-requirements

Netherlands	People travelling to the Netherlands from a country outside the EU/Schengen area must always show a negative COVID-19 test result. People travelling to the Netherlands from a country in the EU/Schengen area must show a negative test result if they do not have proof of vaccination or a Digital COVID Certificate (DCC) based on proof of recovery. Children under 12 do not have to show a negative test result. The person travelling must pay for the test themselves.	https://www.government.nl/topics/coronavirus-covid-19/visiting-the-netherlands-from-abroad/mandatory-negative-test-results-and-declaration/mandatory-when-travelling-from-a-high-risk-country
Nicaragua	Travelers must have an original negative COVID-19 RT-PCR test result. The test must be taken a maximum of 72 hours before arrival in Nicaragua.	https://www.intur.gob.ni/2020/09/21/nicaragua-reanuda-vuelos-comerciales/
Niger	For flights departing Niger's international airports, passengers must present a negative COVID-19 test dated within 72 hours of their departure.	https://ne.usembassy.gov/u-s-citizen-services/covid-19-information/
Nigeria	Passengers must test negative by polymerase chain reaction (PCR) from the country of exit 3 days (72 hours) before departure. Tests done more than 72 hours before departure are not valid	https://covid19.ncdc.gov.ng/advisory/
Palau	Travelers must submit proof of complete COVID-19 vaccination with final dose administered at least fourteen (14) days prior to departure to the Republic. All Travelers must also provide proof of either: a). A negative result of a COVID-19 PCR test (any type of PCR test, including NAAT, RTPCR, qPCR, RT-LAMP, TMA, molecular test, isothermal amplification, ddPCR, or CRISPR), and such test must be taken within three (3) days prior to departure from the point of origin to the Republic; or b). A negative result of a COVID-19 antigen test (WHO or US FDA authorized or approved test), and such test must be taken within one (1) day prior to departure from the point of origin to the Republic; or c). Documentation of recovery from COVID-19 which includes proof of a recent positive viral test and a letter from a healthcare provider or a public health official stating that traveler has recovered from COVID-19 and is cleared to travel.	https://www.palau.gov.pw/travel/
Papua New Guinea	1) All persons must be fully vaccinated to travel to PNG, unless they are under 18 years of age or are a citizen of Papua New Guinea. A person is considered fully vaccinated if they have had the recommended number of doses for the vaccine as listed in Schedule 2, within the past 6 months; or they have had the recommended number of doses for the vaccine, as listed in Schedule 2 and they have had a booster vaccine; 2) All persons traveling to PNG must have a valid COVID-19 test within 72 hours prior to their original port of departure. Children aged 5 years and under are exempted from being tested; 3) All people arriving into PNG will be tested for COVID-19 upon arrival;	https://www.papuanewguinea.travel/travel-advice-update
Paraguay	Test (RNA detection techniques: RT-PCR / LAMP / NAAT) with a negative result performed in a time not exceeding 48 hours or SARS-CoV-2 Antigen Test with negative result performed in a time not exceeding 24 hours prior to shipment. Travelers from Argentina, Brazil, Uruguay and Bolivia are exempt from this requirement.	https://www.migraciones.gov.py/index.php/tramites/ingreso-y-salida-del-pais/exigencias-sanitarias-vigentes-por-covid-19-para-el-ingreso-al-paraguay
Philippines	Travelers are required to provide proof of a negative COVID-19 RT-PCR test result taken a maximum of 48 hours before departure from the origin country to the Philippines.	https://philippines.travel/safetrip
Portugal	Mandatory - A valid vaccination EU Digital COVID Certificate (with a complete vaccination schedule or with a complete vaccination schedule and a vaccine booster)	https://www.visitportugal.com/en/content/covid-19-measures-implemented-portugal
Qatar	All travellers must submit a negative pre-travel PCR lab result obtained no more than 48 hours before the time of departure from the country of origin	https://covid19.moph.gov.qa/EN/travel-and-return-policy/Pages/default.aspx
Russia Federation	The Russian government requires that all foreign travelers present a negative PCR COVID-19 test result upon arrival, dated no later than two days prior to arrival in Russia. The results can be in English and/or digital.	https://ru.usembassy.gov/covid-19-information/

Saint Kitts and Nevis	All travelers must submit a COVID-19 RT-PCR or NAAT negative test result from a CLIA/CDC/UKAS approved lab accredited with ISO/IEO 17025 standard, taken within 3 days of your arrival, along with the required embarkation form, and all other supporting documentation. An embarkation form is required regardless of age. Forms must be submitted no later than 24 hours prior to travel.	https://www.stkittstourism.kn/travel-requirements
Saint Lucia	1)Fully vaccinated travellers aged 5 years and older must have a valid negative Rapid Antigen test or Rapid COVID-19 PCR test done 1 day prior to arrival or a valid negative RT- PCR COVID-19 test done within 5 days prior to arrival. 2)Unvaccinated travellers aged 5 years and older must have a valid negative RT- PCR COVID-19 test done within 5 days prior to arrival.	https://www.stlucia.org/en/covid-19/
Saint Vincent and the Grenadines	All travelers, including those fully vaccinated, must have a negative COVID-19 RT-PCR test result. The test must be taken a maximum of 72 hours (3 days) before arrival.	http://health.gov.vc/health/index.php/covid-19-protocols-documents
São Tomé and Príncipe	All nationalities - from the age of 12, and who hold a full vaccination certificate, to submit a negative antigen test, performed up to 48 hours before the date of travel. For citizens who are not yet vaccinated, the mandatory presentation of the negative PCR test, performed up to 72 hours before the date of travel, is maintained. Upon arrival in São Tomé, they will be subject to thermal screening and must provide printed or digital proof of the negative test result to COVID-19 to the Sao Tome authorities for the purpose of monitoring and verifying its authenticity. There is no obligation of prophylactic isolation.	https://portaldascomunidades.mne.gov.pt/pt/vai-viajar/conselhos-aos-viajantes/africa/sao-tome-e-principe
Serbia	Foreign citizens are allowed to enter the Republic of Serbia provided that they have one of the following documents:1)Negative RT-PCR test for the presence of SARS-CoV-2 virus while the negative Antigen FIA Rapid test is valid only if it is done in the United States of America or Republic of Slovenia, not older than 48 hours from the date of issue of the results; 2) Certificate of complete vaccination issued by the Republic of Serbia, i.e. a foreign state with which the Republic of Serbia has concluded an agreement on the recognition of vaccination; 3)Certificate of overcome COVID-19 disease; 4) EU digital certificate.	https://www.mfa.gov.rs/en/citizens/travel-serbia/covid-19-entry-requirements
Seychelles	Effective as of 6th January 2022, Seychelles is welcoming all visitors irrespective of their vaccination status on the condition that they have a COVID-19 negative PCR test certificate that must be taken within 72 hours prior to travel.No quarantine is required for visitors entering Seychelles.	http://tourism.gov.sc/wp-content/uploads/2021/11/Seychelles-Visitor-Travel-Advisory-17-January-2022.pdf
Singapore	Fully vaccinated travelers, including Singapore citizens and residents, must have a negative COVID-19 PCR or antigen rapid test result. The test must be taken a maximum of 2 days before departure to Singapore by an internationally accredited or recognized lab/clinic/medical facility and must be in English, or include an English translation. The Ministry of Health of Singapore provides a list of approved test providers in third countries. For countries not available on the list, travelers should check with the country/region of departure's Department of Health or Ministry of Health equivalent for approved test providers.	https://safetravel.ica.gov.sg/shn-and-swab-summary
South Korea	All passengers arriving in the ROK by plane must provide proof of a negative COVID-19 PCR test taken within 48 hours of their departure.Quarantine Exemption System implementation will start from March 21st for those who HAVE registered their COVID19 vaccination in Korea.Quarantine Exemption System implementation will start from April 1st for those who HAVE NOT registered their COVID19 vaccination in Korea.	https://kr.usembassy.gov/022420-covid-19-information/
South Africa	Travellers arriving into South Africa are required to produce a negative Polymerase Chain Reaction (PCR) test result taken not more than 72 hours before the date of travel and a completed Traveller Health Questionnaire (THQ).Fully vaccinated individuals are permitted to enter South Africa but they are still required to produce a negative PCR test result on entry.	https://sacoronavirus.co.za/2022/01/31/frequently-asked-questions-international-travel/

South Sudan	1) Per guidance issued on July 25, 2021, by the Ministry of Health in the Republic of South Sudan, travelers must present a valid SARS-CoV2 PCR negative test certificate with a sample collected not more than 72 hours prior to arrival at the point of entry and with documentation of full COVID-19 vaccinations (completed at least two weeks before traveling) to not require a quarantine period. 2) Per guidance issued on December 22, 2021, by the Ministry of Health in the Republic of South Sudan, both inbound and outbound travelers must present both a negative PCR test and proof of vaccination.	https://ss.usembassy.gov/covid-19-information/
Sudan	1) Effective August 18, 2021, and until further notice, the Sudanese Civil Aviation Authority requires all passenger arriving from North/South America, Europe, Australia, and New Zealand to possess a certified negative polymerise chain reaction (PCR) test certificate dated within 96 hours of arrival. Persons 8 years old and younger are exempt. 2) Effective August 18, 2021, the Sudanese Civil Aviation Authority requires all passengers, except as noted above, to possess a certified negative polymerise chain reaction (PCR) test certificate dated within 72 hours of arrival. Persons 8 years old and younger are exempt.	https://sd.usembassy.gov/covid-19-information/
Suriname	Travelers arriving must have a negative COVID-19 RT-PCR test result taken a maximum of 48 hours before departure to Suriname. Alternatively, COVID-19 antigen tests taken a maximum of 24 hours before departure are also be accepted.	https://www.flyslm.com/wp-content/uploads/2022/02/SUR-Covid-19-measures-from-February-9th-2022.pdf
Sweden	1) As of 21 January 2022, people travelling to Sweden from EU/EEA countries, including the Nordic countries, must present the EU Digital COVID Certificate or a corresponding certificate showing that they have either been vaccinated against COVID-19, tested negative within 72 hours of arrival or recovered from COVID-19 in the last six months. This requirement applies to foreign citizens aged 18 and over, with certain exemptions. 2)As of 21 January, foreign citizens travelling to Sweden from a country outside the EU/EEA may only enter the country if they are covered by one of the exemptions from the entry ban and can also present a negative result from a COVID-19 test taken within 72 hours of arrival to Sweden, or are exempt from the test requirement. Exemptions from the entry ban and test requirement apply for several categories of travellers, including for those with a vaccination certificate issued in certain countries.	https://government.se/press-releases/2022/01/amendments-to-the-entry-ban-for-people-who-travel-to-sweden/
Tajikistan	All travelers must show results from a negative COVID-19 PCR test issued within 72 hours of arrival. Test results are verified before passengers are allowed to board flights to Dushanbe and again upon arrival in Dushanbe.	https://tj.usembassy.gov/covid-19-information/
Tanzania	1) Travelers are required to present a negative COVID-19 test certificate upon arrival. The test must be a Real Time Polymerase Chain Reaction (RT-PCR) test or Nucleic Acid Amplification Test (NAAT) collected at a nationally accredited/approved laboratory, with the sample collected within 96 hours of arrival in Tanzania. 2) Travelers who have recovered from COVID-19 can submit proof of recovery from authorized medical personnel for entry to Tanzania.	https://tz.usembassy.gov/covid-19-information/
Thailand	From 1 April, 2022, international arrivals under any of the current three entry schemes – TEST & GO, Sandbox, and Alternative Quarantine (AQ) – are allowed to enter Thailand without the need to show proof of a negative RT-PCR test within 72 hours of travel. Travelers must proceed to the prearranged accommodation or medical facility to undergo the Day 1 RT-PCR test.	https://www.tatnews.org/thailand-reopening/
Trinidad and Tobago	All travellers are required to submit a negative NASOPHARYNGEAL (nasal swab) RT-PCR test result. This test should have been taken no earlier than seventy-two (72) hours prior to arrival in Trinidad and Tobago.	https://travelpass.gov.tt/travel-requirement
US	Effective December 6, 2021, all air passengers 2 years or older with a flight departing to the US from a foreign country are required show a negative COVID-19 viral test result taken no more than 1 day before travel, or documentation of having recovered from COVID-19 in the past 90 days, before they board their flight.	https://www.cdc.gov/coronavirus/2019-ncov/travelers/noncitizens-US-air-travel.html
Uruguay	Travelers must have a negative COVID-19 RT-PCR or antigen test result. The test must be taken a maximum of 72 hours before departure.	https://www.gub.uy/ministerio-salud-publica/comunicacion/publicaciones/requisitos-para-ingreso-uruguay-personas-nacionales-extranjeras

Uzbekistan	A negative PCR COVID-19 test performed within 48 hours of arrival is required for entry to Uzbekistan. Travelers arriving at land borders may need to take a rapid screening test on arrival even if presenting a negative PCR test.	https://uz.usembassy.gov/covid-19-information/
Venezuela	A PCR test is currently required to enter Venezuela. The test must be taken less than 48 hours before arrival. This information might change, so we recommend all travelers consult the current guidance from Venezuela.	https://ve.usembassy.gov/covid-19-information/
Vietnam	The Government has agreed with the Ministry of Culture, Sports and Tourism's proposal to reopen tourism in new normal, starting from March 15. With the new tourism resumption plan, incoming tourists may only be required to have proof of vaccination or recovery from COVID-19 and negative test result certificate issued within 24 hours (rapid test) and 72 hours (RT-PCR) before departure.	https://en.baochinhphu.vn/govt-decides-to-reopen-tourism-from-mid-may-111220216120243292.htm
Zambia	Travelers must have a negative COVID-19 PCR test result. The test must be taken a maximum of 72 hours before departure from the country of origin. Travelers must create a PanaBios account and generate a Trusted Travel Code. Travelers with results from non-trusted travel compliant laboratories will be required to upload test results to the Global Haven System for authentication.	https://www.zambiaimmigration.gov.zm/wp-content/uploads/2022/01/Travel_-NOTE-VERBAL-No-6004-2021_1.pdf
Zimbabwe	All ports of entry have been opened. All persons entering Zimbabwe must have undergone a valid COVID-19 PCR Test not more than 48 hours from the time of their departure for Zimbabwe, and be fully vaccinated.	https://zimbabwetourism.net/covid19-guidelines-for-travellers/

COVID-19 Weekly Epidemiological Update

Edition 86, published 5 April 2022

In this edition:

- [Global overview](#)
- [Special Focus: Update on SARS-CoV-2 variants of interest and variants of concern](#)
- [WHO regional overviews](#)

Global overview

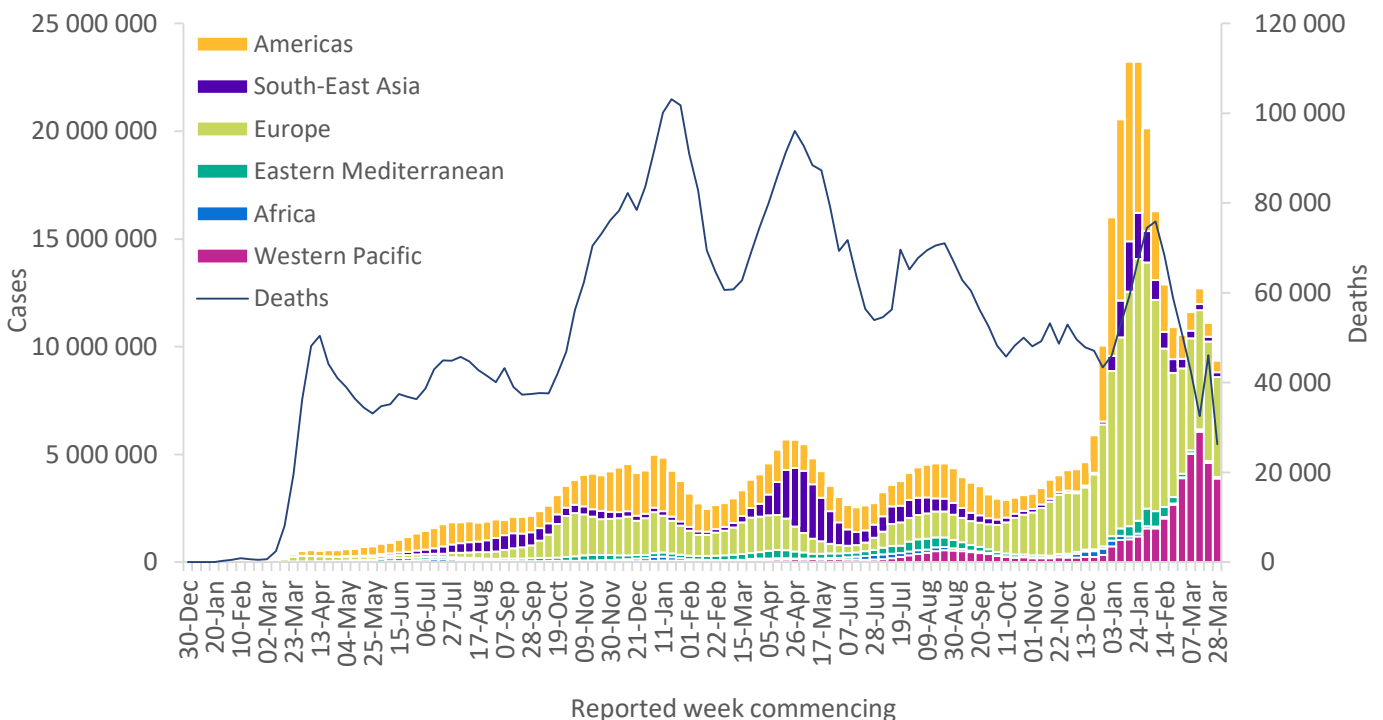
Data as of 3 April 2022

After the increase observed during the first half of March 2022, the number of new COVID-19 cases has decreased for a second consecutive week, with a 16% decline during the week of 28 March through 3 April 2022 as compared to the previous week (Figure 1). The number of new weekly deaths also decreased sharply (-43%) as compared to the previous week, when an artificial spike in deaths was observed ([see WEU 85](#)).

Across the six WHO regions, over nine million new cases and over 26 000 new deaths were reported. All regions reported decreasing trends both in the number of new weekly cases and new weekly deaths (Table 1). As of 3 April 2022, just over 489 million cases and over 6 million deaths have been reported globally.

These trends should be interpreted with caution as several countries are progressively changing their COVID-19 testing strategies, resulting in lower overall numbers of tests performed and consequently lower numbers of cases detected.

Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 3 April 2022**



**See [Annex 1: Data, table, and figure notes](#)

At the country level, the highest number of new weekly cases were reported from the Republic of Korea (2 058 375 new cases; -16%), Germany (1 371 270 new cases; -13%), France (959 084 new cases; +13%), Viet Nam (796 725 new cases; -29%), and Italy (486 695 new cases; -3%).

The highest number of new weekly deaths were reported from the United States of America (4 435 new deaths; -10%), the Russian Federation (2 357 new deaths; -18%), the Republic of Korea (2 336 new deaths; -5%), Germany (1 592 new deaths; +5%), and Brazil (1 436 new deaths; -19%).

Table 1. Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 3 April 2022**

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	4 633 407 (50%)	-16%	203 782 791 (42%)	10 448 (40%)	-15%	1 943 512 (32%)
Western Pacific	3 888 889 (42%)	-16%	47 019 130 (10%)	5 592 (21%)	-16%	212 955 (3%)
Americas	538 114 (6%)	-15%	150 891 428 (31%)	7 822 (30%)	-61%	2 702 528 (44%)
South-East Asia	221 895 (2%)	-5%	57 195 752 (12%)	1 607 (6%)	-73%	779 475 (13%)
Eastern Mediterranean	45 545 (<1%)	-9%	21 586 380 (4%)	687 (3%)	-16%	340 735 (6%)
Africa	23 968 (<1%)	-19%	8 584 490 (2%)	129 (<1%)	-21%	171 115 (3%)
Global	9 351 818 (100%)	-16%	489 060 735 (100%)	26 285 (100%)	-43%	6 150 333 (100%)

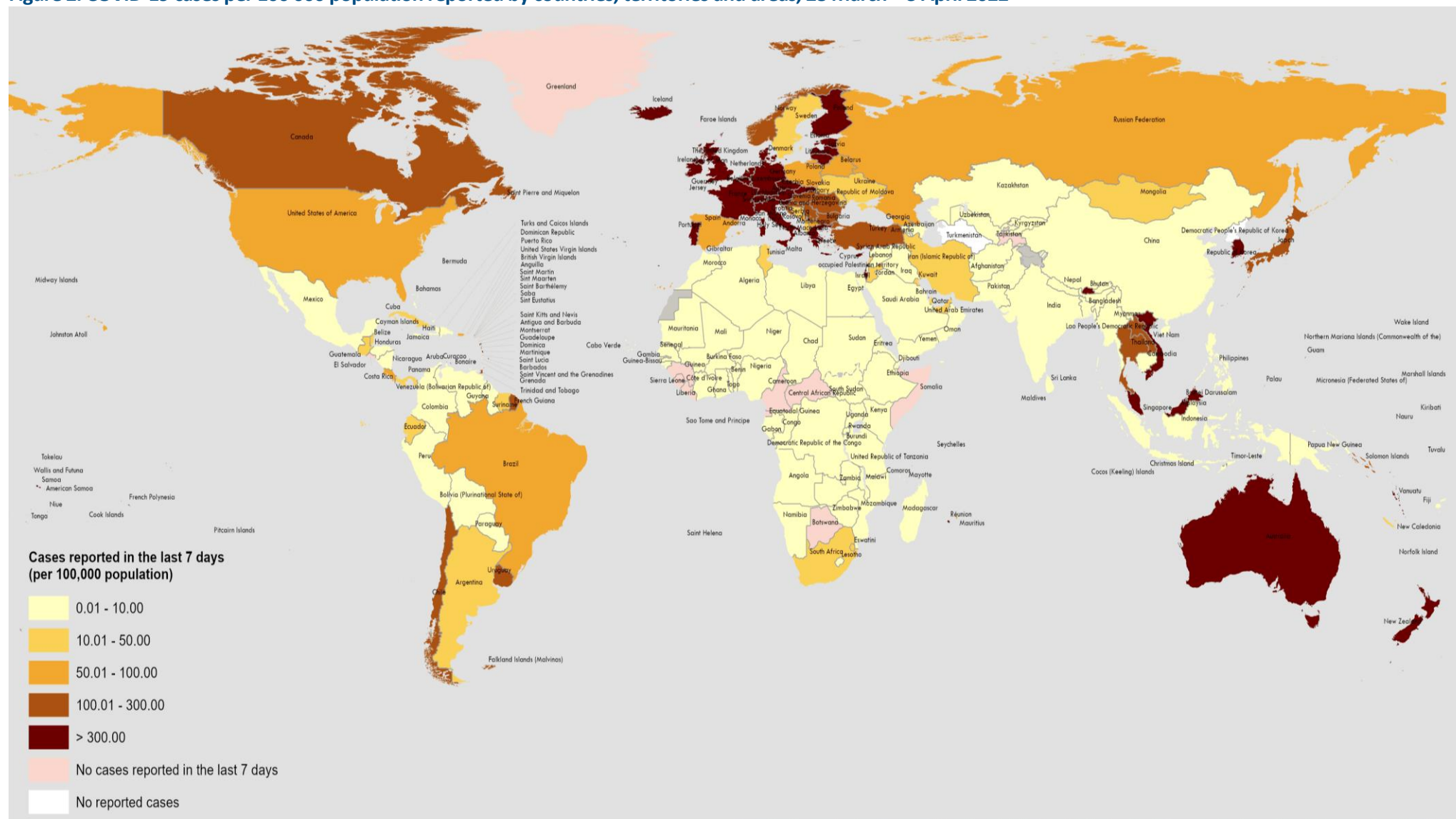
*Percent change in the number of newly confirmed cases/deaths in the past seven days, compared to seven days prior

**See [Annex 1: 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, 28 March – 3 April 2022*



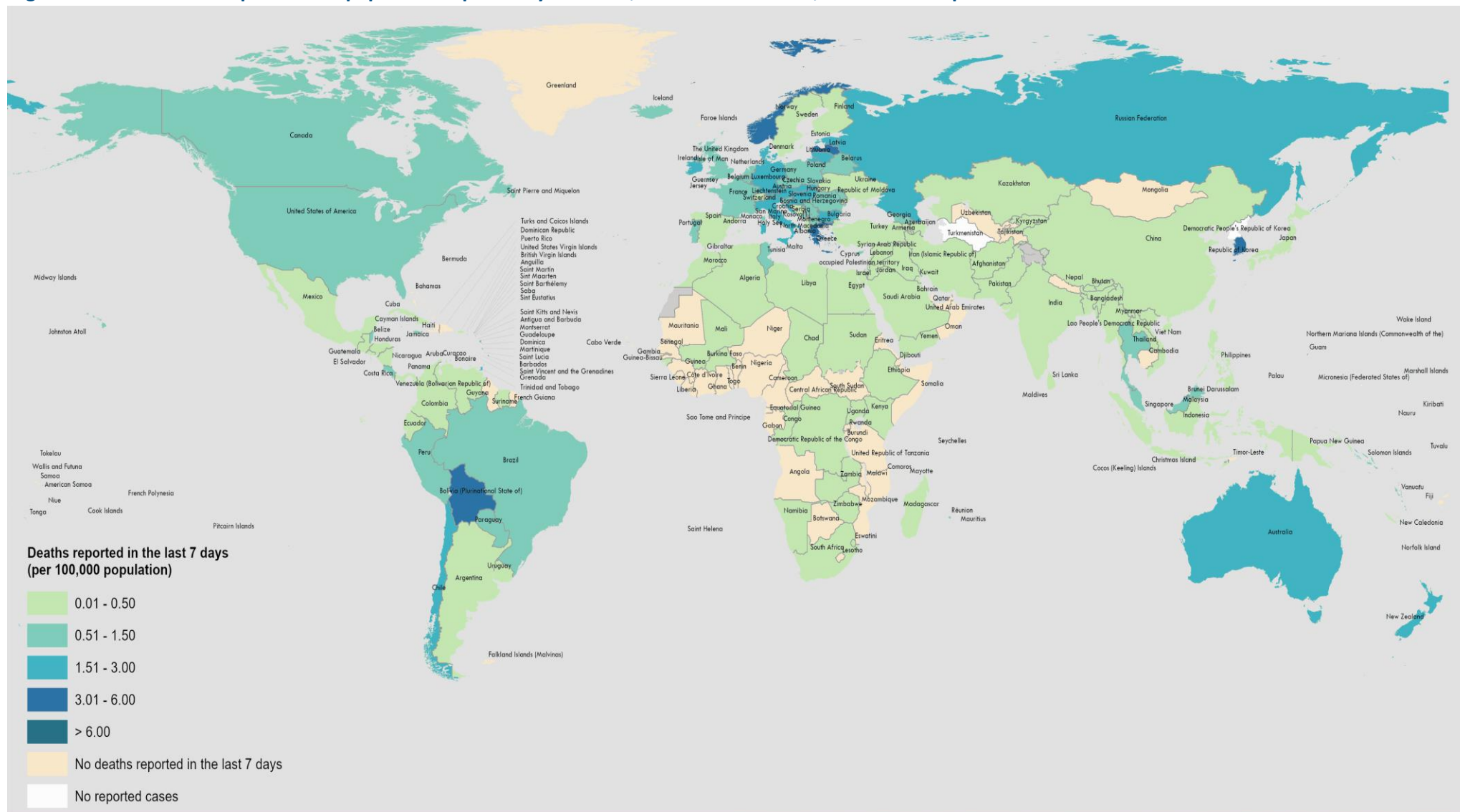
Data Source: World Health Organization
 United Nations Population Division (Population prospect 2020)
Map Production: WHO Health Emergencies Programme

Not applicable 0 2,500 5,000 km
 © World Health Organization, 2022. All rights reserved.

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 1: Data, table, and figure notes](#)

Figure 3. COVID-19 deaths per 100 000 population reported by countries, territories and areas, 28 March – 3 April 2022*



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 1: 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 to control disease spread. Potential variants of concern (VOCs), variants of interest (VOIs) or variants under monitoring (VUMs) are regularly assessed based on the risk posed to global public health.

The classifications of variants will be revised to reflect the continuous evolution of circulating variants and their changing epidemiology. Criteria for variant classification, and the current lists of VOCs, VOIs and VUMs, are available on the [WHO Tracking SARS-CoV-2 variants website](#). National authorities may choose to designate other variants and are encouraged to investigate and report on the impacts of these variants. When referring to the genomic sequence of SARS-CoV-2 identified from the first cases (December 2019), the term 'index virus' should be used.

Geographic spread and prevalence of VOCs

The Omicron variant remains the dominant variant circulating globally, accounting for nearly all sequences recently reported to GISAID. Among the 417 147 sequences uploaded to GISAID with specimens collected in the last 30 daysⁱ, 416 175 (99.8%) were Omicron, 141 (<0.1%) were Delta, and 562 sequences were not assigned to a Pango lineage (<0.2%). The total number of submitted Omicron sequences continues to decline, a trend observed for each of the Omicron descendent variants. Among the Omicron descendent lineages, the relative proportion of BA.2 has increased to 93.6%, while BA.1.1 accounts for 4.8% and BA.1 and BA.3 account for <0.1% (figure 4, panels A and B) of all Omicron lineages. BA.2 has become dominant in all six WHO regions (figure 4, panel C) and in 68 countries for which sequence data are available. However, there have been subregional differences in the rise of BA.2; notably in South America: BA.2 began to rise later and at a slower rate as compared to other subregions, accounting for 28% of Omicron lineages in week 11 (14 to 20 March 2022). These trends should be interpreted with due consideration of the limitations of surveillance systems, including differences in sequencing capacity and sampling strategies between countries, as well as laboratory turn-around times for sequencing and delays in reporting.

Figure 4. Global distribution and relative proportion of Omicron lineages for sequences submitted to GISAID presented by week of specimen collection

Panel A. Relative proportions of Omicron lineages over the last four weeks by week of specimen collection

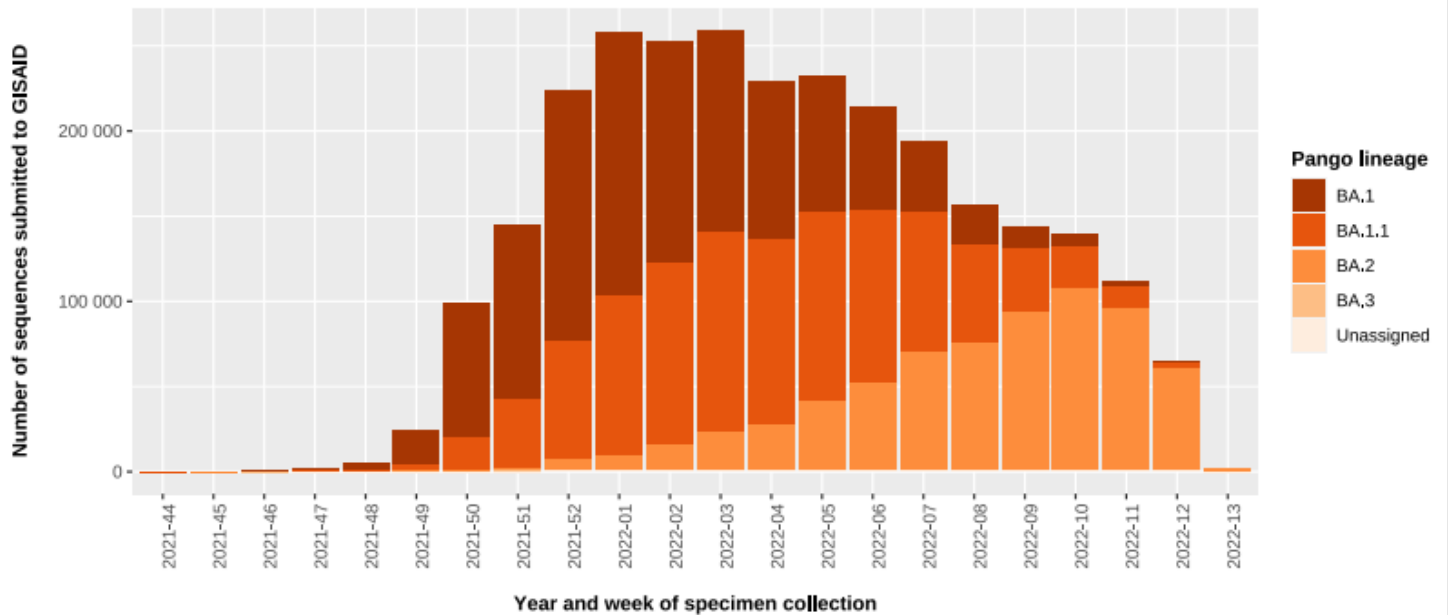
Lineage	Countries	Sequences ^a	SGTF ^b	Overall (%)		Last 4 weeks by collection date (%)			
				Total	2022-10	2022-11	2022-12	2022-13	
BA.1	174	1 124 247	95.93	39.56	5.51	3.18	1.57	0.94	
BA.1.1	155	1 017 287	95.35	35.79	17.47	10.99	4.54	4.81	
BA.2	114	693 654	0.24	24.41	76.56	85.38	93.44	93.63	
BA.3	23	690	97.25	0.02	0.02	0.01	0.01	0.06	
Unassigned	68	6 193	29.68	0.22	0.44	0.44	0.45	0.56	

^a Data source: sequences and metadata from [GISAID](#)

^b Percentage of sequences with Spike H 69-70 deletion associated with S gene failure

ⁱ Includes sequences submitted to [GISAID](#) with sample collected dates from 02 to 31 March 2022 (last reported sample at the time of data extraction), excluding low coverage sequences. Proportions are estimated for countries submitting more than 100 total sequences. In the past 30 days, 45 countries submitted a total of 100 sequences and above on GISAID.

Panel B. Incidence of Omicron lineages by week of specimen collection.



Global distribution of Omicron lineages from sequences and metadata submitted to [GISAID](#)
 Data was extracted from [GISAID](#) on 22 March 2022 at 14:00 CET; figures are correct at the time of printing

Panel C. Proportion of Omicron descendent lineage BA.2 since January 2021 by WHO region

WHO region	Omicron sequences			Proportion BA.2 by specimen collection week (%)												
	Total ^a	Weekly ^b	TAT ^c	2022-01	2022-02	2022-03	2022-04	2022-05	2022-06	2022-07	2022-08	2022-09	2022-10	2022-11	2022-12	2022-13
Africa	8 742	574	28 days	12.03	17.40	38.74	37.66	45.07	59.90	76.59	86.25	83.33	79.09	91.18	88.24	
Eastern Mediterranean	1 297	147	38 days	30.31	33.14	32.77	12.93	16.67	45.58	44.32	40.82	50.00	100.00			
Europe	1 425 279	124 128	10 days	3.20	8.04	12.80	17.52	22.81	32.59	46.11	60.06	74.32	82.90	90.02	94.17	94.33
Americas	685 187	51 459	19 days	0.17	0.36	0.75	1.26	1.75	2.92	5.35	9.67	17.48	32.10	48.67	65.88	65.79
South-East Asia	47 348	4 132	27 days	52.48	57.87	47.99	58.62	78.47	82.90	82.48	79.28	86.14	85.16	94.16	93.10	
Western Pacific	89 145	5 302	29 days	5.20	4.40	6.55	10.65	14.72	21.07	30.22	40.97	49.87	70.58	81.66	92.14	93.10

^a Total number of Omicron sequences in GISAID with specimen dates from 3 January 2022

^b Median number of sequences per specimen week (excludes weeks with no Omicron sequences)

^c Median number of days from specimen collection to sequence deposition in GISAID

Reduced number of SARS-CoV-2 sequences in publicly available database

Since the first epidemiological week of 2022, when the highest number of weekly sequences was reported in GISAID (284 061 sequences), the number of weekly sequences has declined progressively. During week 12 (21 to 27 March 2022), only 65 381 sequences were collected and submitted to GISAID. There has been an average of 12% reduction in the weekly collection and submission of sequences. While the decrease in sequences is consistent with the overall trend in new cases observed globally, it may also reflect changes in epidemiological surveillance policies in some countries, including changes in sampling and sequencing strategies, resulting in lower overall numbers of tests performed and consequently lower numbers of cases detected.

Recombinants update

The SARS-CoV-2 virus continues to evolve. Given the current high level of transmission worldwide, it is likely that further variants, including recombinants, will continue to emerge. Recombination is common among coronaviruses and is regarded as an expected mutational event.

WHO is tracking recombinant variants, both recombinants of Delta (AY.4) and Omicron (BA.1) (e.g., XD Pango lineage), as well as recombinants of BA.1 and BA.2 (e.g., XE Pango lineage). The XD recombinant is being tracked as a VUM by WHO, although its spread appears to have remained limited at present (26 sequences in GISAID). Currently available evidence does not suggest that it is more transmissible than other circulating variants. The XE recombinant is being tracked as part of the Omicron variant. This recombinant was first detected in the United Kingdom on 19 January and approximately 600 sequences have been reported and confirmed as of 29 March 2022. Early estimates suggest that XE has a community growth rate advantage of 1.1 (which represents a 10% transmission advantage) as compared to BA.2; however, this finding requires further confirmation.

The evolution rate and the risk of the emergence of new variants, including recombinants, is still very high. The implementation of continuous, comprehensive and representative community sampling and sequencing strategies, alongside timely sharing of data by Member States, remain critical for tracking and understanding the behaviour of SARS-CoV-2 (see [WEU 85](#)). WHO continues to closely monitor and assess the public health risk associated with recombinant variants, alongside other SARS-CoV-2 variants, and will provide updates as further evidence becomes available.

Characteristics of Omicron

Available evidence on the phenotypic impacts of VOCs is reported in [previous editions](#) of the COVID-19 Weekly Epidemiological Update. Since the [last update on 22 March 2022](#), there have been several new publications on the phenotypic characteristics of VOCs, including literature on Omicron (Table 2). Some of these studies have not been peer-reviewed and the findings must therefore be interpreted with due consideration of this limitation.

Table 2: Summary of current evidence on Omicron

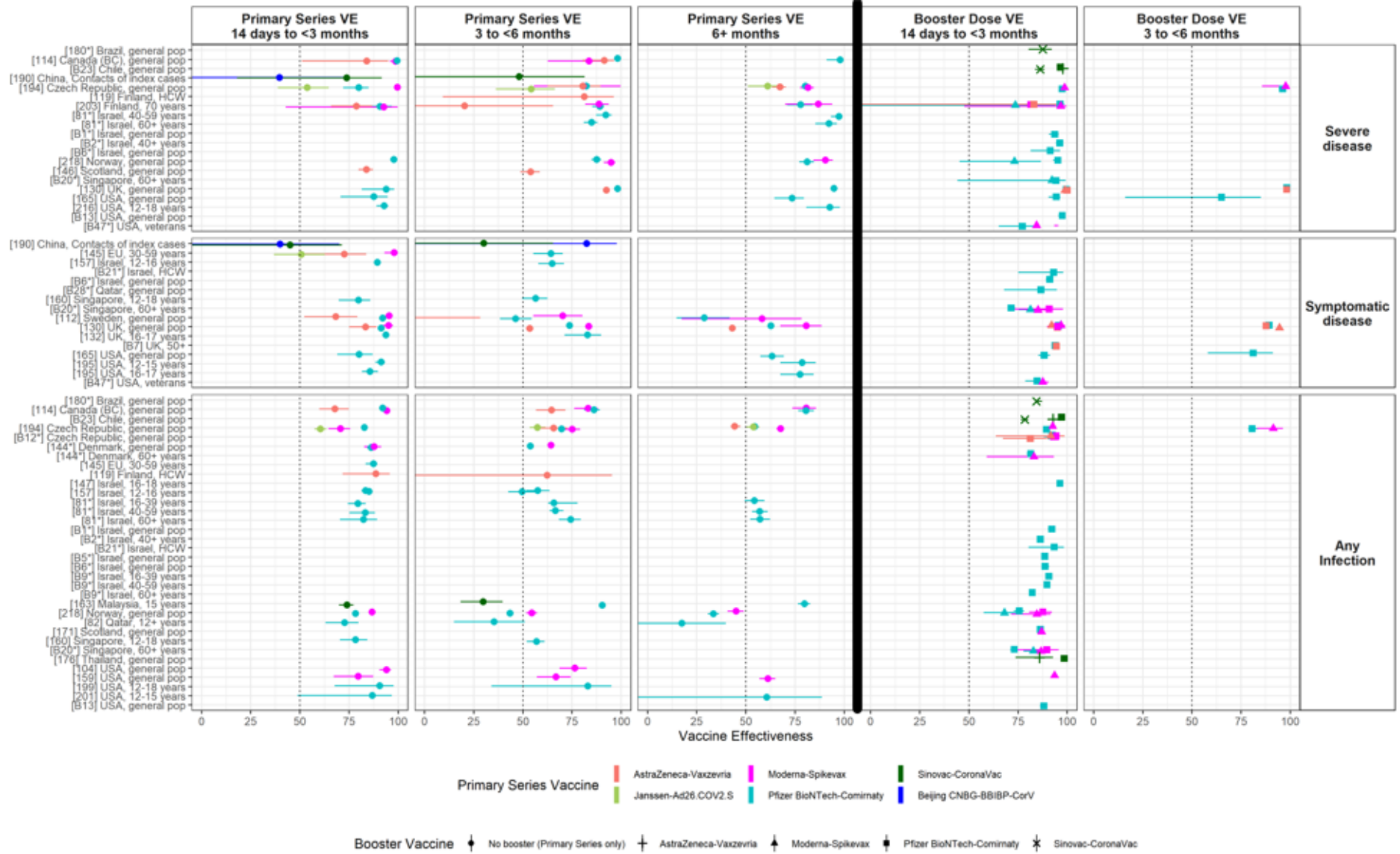
Domain	Indicator	Main results
Epidemiology	Impact on disease prevalence/incidence	Following an increase in the first half of March 2022, the number of new COVID-19 cases has decreased for a second consecutive week, with a 16% decline during the week of 28 March through 3 April 2022 as compared to the previous week. It is important to note that recent changes in testing policies may influence the number of reported cases. The Omicron variant is the dominant circulating variant globally, representing 99.8% of samples collected between 2 and 31 March 2022 (GISAID), while the Delta variant represents <0.1%. Among the Omicron Pango lineages, BA.2 is the most prevalent (93.6%), followed by BA.1.1 (4.8%), BA.1 and BA.3 account for <0.1%.
	Impact on transmission	In an updated analysis of GISAID data ¹ , Omicron continues to show a growth advantage over Delta in 67 countries with sufficient sequence data available up to 4 April 2022, translating to a pooled mean transmission advantage (i.e., relative difference in effective reproduction numbers) of 110% (95% CI: 90%-131%) across epidemiological contexts, under the assumption of an unchanged generation time (i.e., duration between the moment a person gets infected to the moment they infect another person). However, evidence for a reduced generation time of Omicron suggests the transmission advantage may be lower; for a 20% shorter generation time, the estimated pooled mean transmission advantage of Omicron over Delta is 91% (95% CI: 71%-112%). The same analysis yielded identical results to the previous iteration regarding the growth rate advantage of the Omicron Pango lineage BA.2 over the Pango lineage BA.1, with a pooled mean transmission advantage of 72% (95% CI: 55%-82%), under the assumption of an unchanged generation time. These estimates are stabilising as the cumulative number of Omicron sequences is increasing and data become available from more countries. An updated analysis published on 25 March 2022 by the United Kingdom Health Security Agency ² , which used data on samples collected between 15 December 2021 and 15 March 2022, supports BA.2 as having a higher growth rate compared to BA.1 (median: 75.3% per week).
	Impact on disease severity	Omicron has consistently been associated with lower severity when compared to Delta across different settings. ³⁻⁶ Although reported hospitalisation rates among children 0-4 years in the United States of America were about five times higher during periods of Omicron predominance compared to Delta predominance (14.5 vs. 2.9 per 100,000), length of hospital stay was shorter (2 vs 1.5 days, p = 0.002) and the proportion of children requiring ICU admissions was lower (27% vs 21%, p = 0.02) during Omicron predominance. ⁷ An updated analysis found no difference in the risk of hospitalisation between individuals infected with BA.1 compared to BA.2 (HR=0.94; 95% CI: 0.88-1.0) in the United Kingdom. ²
Immune response	Impact on reinfection	Higher rates of reinfection have been reported for Omicron as compared to other SARS-CoV-2 variants. Reinfection with BA.2 following BA.1 has been associated with mild disease in Denmark ⁸ while in Qatar, previous infection with one of the Omicron Pango lineages was found to potentially confer protection against infection with other Omicron Pango lineages: 94.9% (95% CI: 88.4-97.8%) protection against BA.2 following infection with BA.1, and 85.6% (95% CI: 77.4-90.9%) protection against BA.1 following infection with BA.2. ⁹

Domain	Indicator	Main results
	Impact on vaccination	Results of vaccine effectiveness (VE) studies should be interpreted with caution because estimates vary with the type of vaccine administered and the number of doses and scheduling (sequential administration of different vaccines). For further information, see the section Interpretation of the results of the VE for the Omicron variant.
	Impact on antibody responses	There are no new data on antibody responses to Omicron since the epidemiological update published on 22 March 2022 . An analysis of neutralization data from 23 laboratories found a 20-fold reduction in neutralization associated with the Omicron variant. ¹⁰ These findings are consistent with results of recent studies that reported lower neutralising antibody titers to BA.1 and BA.2 compared to wild-type SARS-CoV-2 and similar responses for BA.1 and BA.2. ^{11,12} Another recent study found similar non-neutralising antibody responses to BA.1 and BA.2 in vaccinated individuals. ¹³ Overall, these results indicate similar humoral responses among BA.1 and BA.2.
Diagnostic tools	Impact on PCR assays	Most BA.2 sequences lack the 69-70 deletion responsible for S-gene target failure, with only a limited number of sequences (0.24% out of 693 654) having the 69-70 deletion (GISAID). Assessment of PCR tests for SARS-CoV-2 that include multiple gene targets predicted limited impact of the Omicron variant on the accuracy of these assays. ^{14,15}
	Impact on Rapid Diagnostic tests	Based on evidence from a recent study conducted in the United States of America, the sensitivity of Ag-RDT tests to detect Omicron compared to Delta and wild-type SARS-CoV-2 is similar. ¹⁶
Impact on treatment	Impact on antivirals	Consistent with preliminary data showing no difference in the effectiveness of antiviral agents against the Omicron variant, a recent review reported similar efficacy of antiviral agents against Omicron and previous SARS-CoV-2 variants. ¹⁷
	Impact on biologicals	Initially, studies on the effectiveness of monoclonal antibodies for treating patients with Omicron reported conserved neutralizing activity for three broadly neutralizing monoclonal antibodies (sotrovimab, S2X259 and S2H97) and a reduction in effectiveness of other monoclonal antibodies. ¹⁸⁻²¹ However, additional preclinical evidence shows reduced neutralizing activity of sotrovimab against the BA.2 Pango lineage and lack of efficacy of casirivimab-imdevimab against the BA.1 Omicron Pango lineage. ²²
	Other treatment options	There is no evidence available on the effectiveness of Interleukin-6 receptor blockers and corticosteroids for the management of severe patients with Omicron.

Additional resources

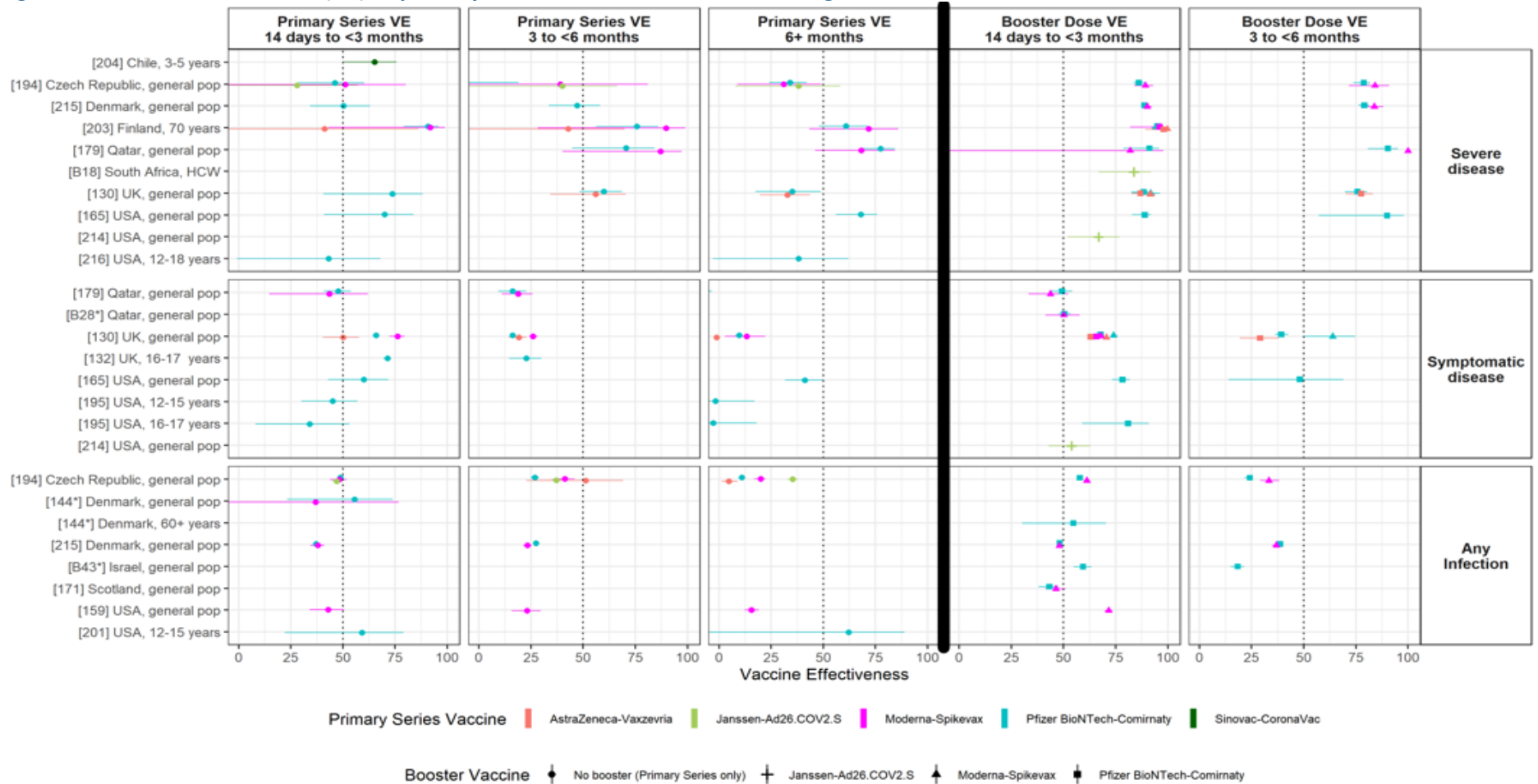
- [Tracking SARS-CoV-2 Variants](#)
- [COVID-19 new variants: Knowledge gaps and research](#)
- [Genomic sequencing of SARS-CoV-2: a guide to implementation for maximum impact on public health](#)
- [Considerations for implementing and adjusting public health and social measures in the context of COVID-19](#)
- [VIEW-hub: repository for the most relevant and recent vaccine data](#)
- [WHO Statement on Omicron sublineage BA.2](#)

Figure 5. Vaccine effectiveness (VE) of primary series and booster vaccination against the Delta variant of concern



*Reference group is fully vaccinated with two doses.

Figure 6. Vaccine effectiveness (VE) of primary series and booster vaccination against the Omicron variant of concern



*Indicates booster dose vaccine effectiveness evaluated using persons completing primary series as reference group, rather than unvaccinated persons. Abbreviations: pop=population; HCW=healthcare workers; EU=European Union. Dots represent point estimates of vaccine effectiveness; horizontal lines represent the 95% confidence intervals. Labels along left side of plot indicate reference numbers [], country, and study population. Reference numbers identify the study and link to the [summary table](#) of VE effectiveness studies on [view-hub.org](#) (Table 1 in summary table); references starting with a 'B' are studies found in the booster VE table only (Table 2 in summary table). Primary series refers to the completion of two doses of vaccines for AstraZeneca-Vaxzevria; Moderna-Spikevax, Pfizer BioNTech-Comirnaty and Sinovac-CoronaVac and one dose of Janssen-Ad26.COVID.2.S. Severe disease includes severe disease, hospitalization, and pneumonia; symptomatic disease includes disease of any severity level; any infection can include symptomatic and asymptomatic infection. Additional details on the methods for inclusion of the estimates in the plots provided in Annex 3. Note, three negative point estimates for the primary series are not shown in the Omicron plot: Moderna-Spikevax VE against symptomatic disease at 6+ months (reference 179) as well as Moderna-Spikevax and Pfizer BioNTech-Comirnaty VE against infection at 3-6 months (reference 144); one negative point estimate for primary series is not shown in the Delta plot: AstraZeneca-Vaxzevria VE against Delta symptomatic disease (reference 112) with 95% CIs crossing 0 is not fully visible in the plot.

Figures 5 and 6 summarize the impact of Delta and Omicron variants, respectively, on product-specific vaccine effectiveness (VE) over time for both primary series vaccines and booster vaccines. Since the last [update](#), four new studies, one of which assessed VE against Delta, two of which assessed VE against Omicron, and one which also assessed VE against both Delta and Omicron, have been added to the figures.^{23–26} Of the studies on Omicron, one peer-reviewed study provided new VE data on Janssen-Ad26.COVID.S²³, one (not yet peer-reviewed) on Moderna-Spikevax²⁴, and two (one not yet peer-reviewed) on Pfizer BioNTech-Comirnaty.^{24,26} Additional information on vaccine performance against VOCs can also be found in Annex 4.

Interpretation of the results of the VE for the Omicron variant

To date, twelve studies reporting VE estimates against the Omicron variant show reduced protection of the primary series COVID-19 vaccines for all outcomes (*severe disease*, *symptomatic disease*, and *infection*) than has been observed for other VOCs. Importantly, VE estimates against the Omicron variant remain highest for *severe disease*. Booster vaccination substantially improves VE for all outcomes for all vaccine products. However, due to the short follow-up time, more data are needed to characterize the duration of VE following a booster dose for all outcomes.

For protection against *severe disease*, within the first three months of primary series vaccination, four of eight (50%) VE estimates for the mRNA vaccines (Moderna-Spikevax and Pfizer BioNTech-Comirnaty) were $\geq 70\%$; while only two VE were available for vector vaccines (AstraZeneca-Vaxzevria and Janssen-Ad26.COVID.S), both of which reported a VE of $< 50\%$. Beyond three months after the primary series vaccination, six of 17 (35%) VE estimates for the mRNA vaccines and none of the five available VE estimates for the vector vaccines were $\geq 70\%$. A booster dose improved VE against *severe disease* in all 12 studies, with only one estimate for Janssen-Ad26.COVID.S being $< 70\%$ between 14 days and three months of receipt of a booster dose (17 VE estimates evaluated an mRNA booster dose and two estimates evaluated a booster dose of Janssen-Ad26.COVID.S). At three to six months post mRNA booster dose, all nine available estimates showed VE $\geq 70\%$, including six studies in which an mRNA vaccine was given as the primary series and three studies in which AstraZeneca-Vaxzevria was given as the primary series.

Initial VE estimates against *symptomatic disease* and *infection* tended to be lower than against *severe disease*, and VE decreased more substantially over time. For *symptomatic disease* within the first three months of primary series vaccination, two of eight (25%) VE estimates for the mRNA vaccines were $\geq 70\%$, and the single VE estimate for the AstraZeneca-Vaxzevria was $< 70\%$. Beyond three months after vaccination, none of the 14 VE estimates were $\geq 50\%$ (12 estimates evaluated mRNA vaccines and two evaluated AstraZeneca-Vaxzevria). An mRNA booster dose after completion of a primary series of an mRNA vaccine or a vector vaccine improved VE against *symptomatic disease*, with four of 13 (31%) VE estimates of $\geq 70\%$, and 11 of 13 (85%) VE estimates of $\geq 50\%$ between 14 days and three months post booster. However, booster dose protection appeared to decline over time since vaccination, with one of four (25%) available estimates indicating a VE of $\geq 50\%$ at three to six months following receipt of an mRNA booster dose. VE against *infection* showed a similar pattern as that against *symptomatic disease*.

Interpretation of the results of the VE for the Delta variant

To date, 41 studies contribute evidence of the effectiveness of COVID-19 vaccines against disease and infection due to the Delta variant. VE estimates against Delta are substantially higher as compared to those against Omicron and decline more gradually over time for symptomatic disease and infection. There are only slight declines over time for VE estimates against severe disease caused by Delta.

For *severe disease* outcomes with the Delta variant within the first three months of vaccination with the primary series, all 10 available VE estimates for the mRNA vaccines (Moderna-Spikevax and Pfizer BioNTech-Comirnaty) and four of five

(80%) VE estimates for the vector vaccines (AstraZeneca-Vaxzevria and Janssen-Ad26.COVS.2.S) were $\geq 70\%$. In addition, one of the two available VE estimates for the inactivated vaccines (Beijing CNBG-BBIBP-CorV and Sinovac-CoronaVac), from a study among a high risk population of close contacts of Delta index cases, was $\geq 70\%$.²⁷ Beyond three months after vaccination, all of the 23 available VE estimates for the mRNA vaccines, and five of the 10 (50%) VE estimates for the vector vaccines, were $\geq 70\%$. A booster dose improved VE against *severe disease*, with all 25 VE estimates being $\geq 70\%$ between 14 days and three months of receipt of a booster dose (22 estimates evaluated an mRNA booster, one evaluated a booster dose of AstraZeneca-Vaxzevria, and one evaluated a booster dose of Sinovac-CoronaVac). Between three and six months post mRNA booster, four of five (80%) estimates showed a VE of $\geq 70\%$.

For *symptomatic disease* and *infection*, initial VE estimates tended to be lower than against severe disease, and VE estimates decreased more significantly over time. Nonetheless, for *symptomatic disease* outcomes within the first three months of vaccination with the primary series, all 11 available VE estimates for the mRNA vaccines were $\geq 70\%$; two of four (50%) VE estimates for the vector vaccines were $\geq 70\%$. Both VE estimates for the inactivated vaccines among the high-risk group of close contacts of Delta index cases were $< 50\%$. Beyond three months after vaccination, seven of 15 (47%) VE estimates for the mRNA vaccines and none of the three VE estimates for AstraZeneca-Vaxzevria were $\geq 70\%$. An mRNA booster dose after completion of a primary series of an mRNA vaccine or AstraZeneca-Vaxzevria restored VE against *symptomatic disease* to $\geq 70\%$ in all studies (18 VE estimates) within three months of a booster dose. This persisted across six months post booster dose, with all the four VE estimates $\geq 70\%$. Limited data were available for VE of inactivated vaccines against symptomatic disease, though a similar pattern was seen with VE estimates of inactivated vaccines against *infection* over time: the single VE estimate within the first three months of completion for Sinovac-CoronaVac was $\geq 70\%$, which declined to $< 50\%$ between three to six months; however, a booster dose with various platforms following Sinovac-CoronaVac primary series restored VE to $\geq 70\%$ in all studies (six VE estimates) within the first three months of receipt of any booster dose.

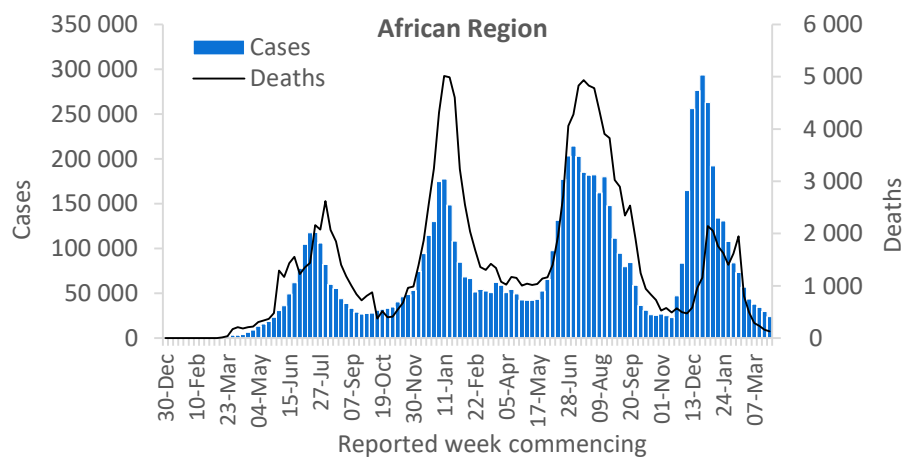
WHO regional overviews:

Epidemiological week 28 March – 3 April 2022**

African Region

The African Region has continued to report a decreasing trend in weekly cases since January 2022, with just under 24 000 new weekly cases reported, representing a 19% decrease as compared to the previous week. However, nine (18%) countries in the Region reported an increase of over 20% in cases, with some of the greatest proportional increases observed in Mauritania (39 vs 4 new cases; +875%), Seychelles (442 vs 206 new cases; +115%) and Namibia (97 vs 63 new cases; +54%). The highest numbers of new cases were reported from South Africa (9802 new cases; 16.5 new cases per 100 000 population; +10%), Réunion (9756 new cases; 1089.7 new cases per 100 000; +15%), and Mauritius (794 new cases; 62.4 new cases per 100 000; -90%).

The number of new weekly deaths in the Region decreased by 21% as compared to the previous week, with over 100 new deaths reported. The highest numbers of new deaths were reported from South Africa (81 new deaths; <1 new death per 100 000 population; -6%), Ethiopia (12 new deaths; <1 new death per 100 000; +300%), and Zimbabwe (9 new deaths; <1 new death per 100 000; -18%).

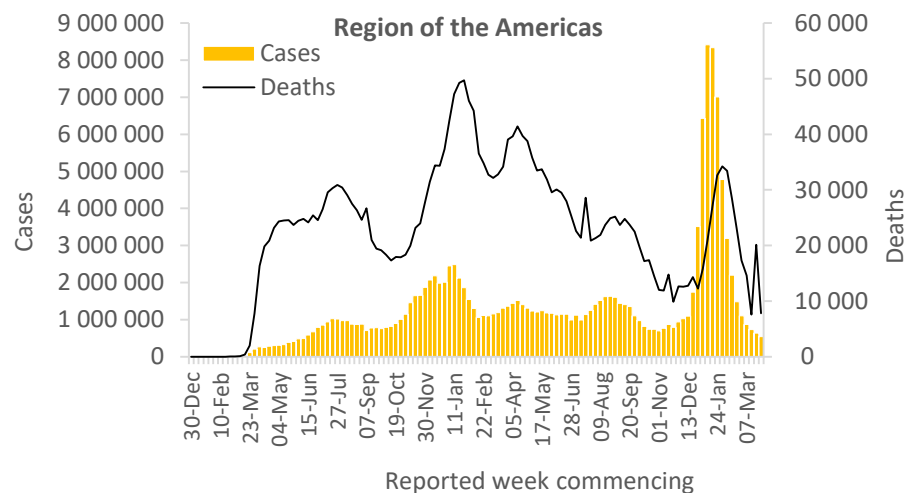


Updates from the [African Region](#)

Region of the Americas

The Region of the Americas has also been reporting a decreasing trend in weekly cases since mid-January 2022, with over 538 000 new weekly cases reported, corresponding to a 15% decrease as compared to the previous week. However, thirteen (23%) countries in the Region reported increases in new cases of 20% or greater, with the largest increases observed in Saba (55 vs 3 new cases; +1733), Aruba (123 vs 26 new cases; +373) and Saint Barthélemy (186 vs 78 new cases; +139%). The highest numbers of new cases were reported from the United States of America (205 433 new cases; 62.1 new cases per 100 000; +2%), Brazil (172 908 new cases; 81.3 new cases per 100 000; -25%) and Canada (48 853 new cases; 129.4 new cases per 100 000; +16%).

The number of new weekly deaths decreased by 61% as compared to the previous week, when an artificial spike was observed due to changes in the definition of COVID-19 deaths in Chile and in the United States of America. The highest numbers of new deaths were reported from the United States of America (4435 new deaths; 1.3 new deaths per 100 000; -10%), Brazil (1436 new deaths; <1 new death per 100 000; -19%), and Bolivia (Plurinational State of) that shows a sharp increase in deaths due to backlog reporting (408 new deaths; 3.5 new deaths per 100 000; +8060%).

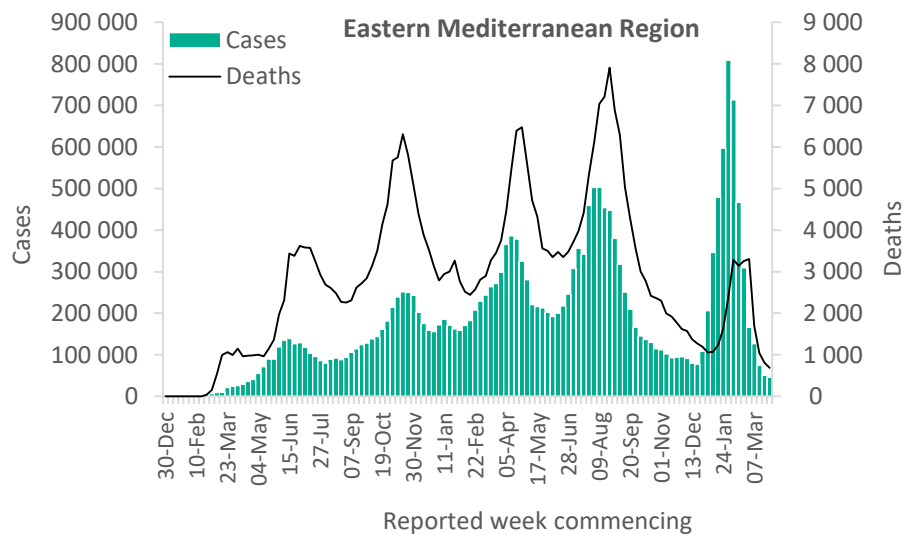


Updates from the [Region of the Americas](#)

Eastern Mediterranean Region

In the Eastern Mediterranean Region, new weekly cases have continued to decline after reaching a peak in early February 2022. Just over 45 000 new weekly cases were reported last week, a 9% decrease as compared to the previous week. However, two (9%) countries in the Region have reported increases in new cases of 20% or greater: Islamic Republic of Iran (17 582 vs 9572 new cases; +84%) and Iraq (2379 vs 1956 new cases; +22%). The highest numbers of new cases were reported from the Islamic Republic of Iran (20.9 new cases per 100 000), Bahrain (5198 new cases; 305.5 new cases per 100 000; -20%) and Egypt (4375 new cases; 4.3 new cases per 100 000; -21%).

The number of new weekly deaths in the Region decreased by 16% when compared to the previous week, with just over 600 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (306 new deaths; <1 new death per 100 000; -27%), Tunisia (158 new deaths; 1.3 new deaths per 100 000; +58%), and Egypt (56 new deaths; <1 new death per 100 000; -33%).

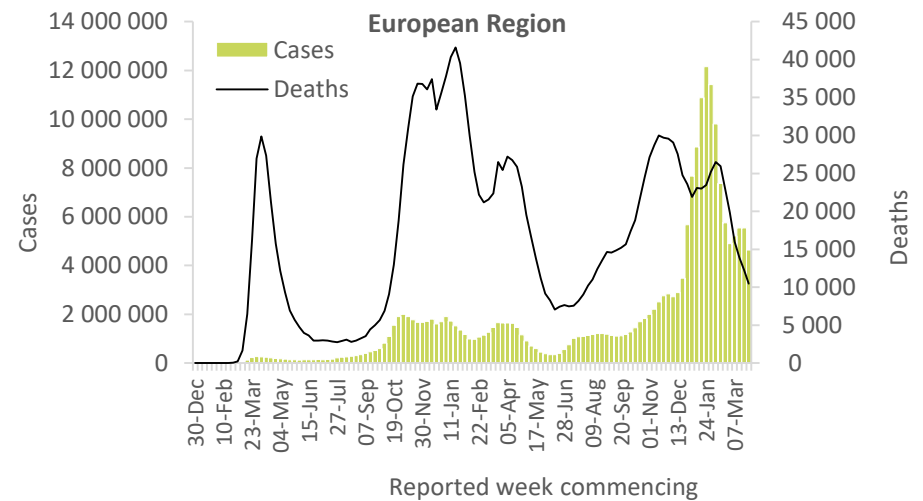


Updates from the [Eastern Mediterranean Region](#)

European Region

After the increase in cases observed in the European Region during the first half of March 2022, new weekly cases have decreased for the second consecutive week (-16% as compared to the previous week), with over 4.6 million new cases reported. Four (7%) countries in the Region reported increases in new cases of 20% or greater, with the largest observed in Malta (4243 vs 2434 new cases; +74%), Uzbekistan (212 vs 165 new cases; +28%) and Kyrgyzstan (89 vs 70 new cases; +27%). The highest numbers of new cases were reported from Germany (1 371 270 new cases; 1648.8 new cases per 100 000; -13%), France (959 084 new cases; 1474.6 new cases per 100 000; +13%) and Italy (486 695 new cases; 816.0 new cases per 100 000; -3%).

The number of new deaths has continued to decrease in the Region, with over 10 000 new deaths reported this week, a 15% decrease as compared to the previous week. The highest numbers of new deaths were reported from the Russian Federation (2357 new deaths; 1.6 new deaths per 100 000; -18%), Germany (1592 new deaths; 1.9 new deaths per 100 000; +5%), and Italy (966 new deaths; 1.6 new deaths per 100 000; -4%).

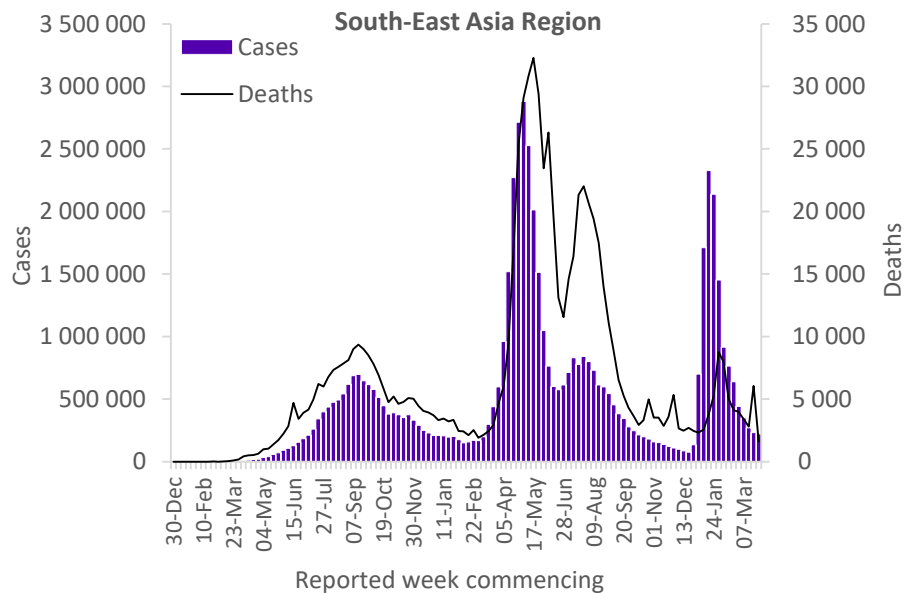


Updates from the [European Region](#)

South-East Asia Region

The South-East Asia Region reported over 221 000 new weekly cases, a 5% decline as compared to the previous week, continuing the decreasing trend observed since mid-January 2022. However, Bhutan reported an increase in new weekly cases of 107% (6357 vs 3076 new cases). The highest numbers of new cases were reported from Thailand (182 510 new cases; 261.5 new cases per 100 000; +4%), Indonesia (21 028 new cases; 7.7 new cases per 100 000; -42%), and India (8678 new cases; <1 new case per 100 000; -25%).

The Region reported just over 1600 new weekly deaths, representing a 73% decrease as compared to the previous week, when an artificial spike was observed due to retrospective adjustments reported from India. The highest numbers of new deaths were reported from Indonesia (618 new deaths; <1 new death per 100 000; -34%), Thailand (616 new deaths; <1 new death per 100 000; +11%), and India (341 new deaths; <1 new death per 100 000; -92%).

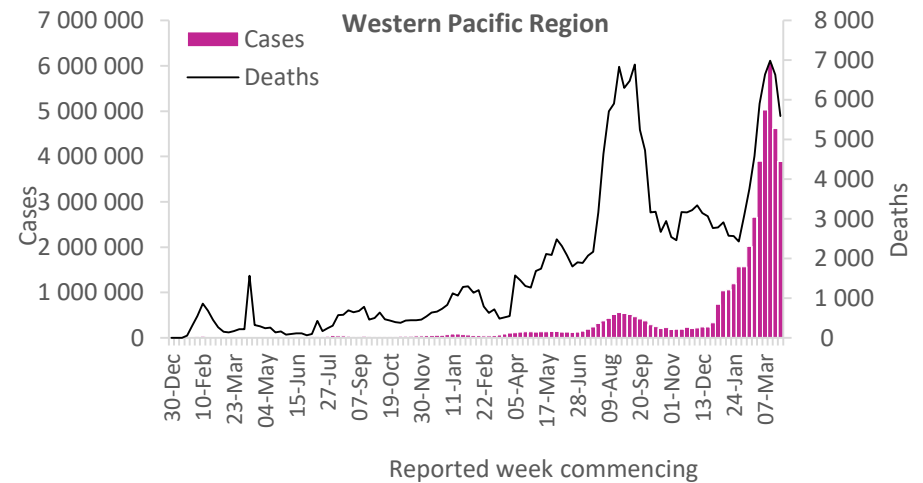


Updates from the [South-East Asia Region](#)

Western Pacific Region

After the increasing trend in new cases observed in the Western Pacific Region since the end of December 2021, new weekly cases declined for a second consecutive week (-16% as compared to the previous week), with over 3.8 million new cases reported. However, seven (23%) countries in the Region reported an increase of 20% or greater, with some of the largest increases observed in Mongolia (1628 vs 622 new cases reported; +162%), Solomon Islands (1044 vs 668 new cases; +56%) and Cook Islands (828 vs 554 new cases; +49%). The highest numbers of new cases were reported from the Republic of Korea (2 058 375 new cases; 4014.8 new cases per 100 000; -16%), Viet Nam (796 725 new cases; 818.5 new cases per 100 000; -29%), and Australia (399 479 new cases; 1566.6 new cases per 100 000; +9%).

The number of new weekly deaths shows a decrease of 16% as compared to the previous week, with just under 5600 new deaths reported. The highest numbers of new deaths were reported from the Republic of Korea (2336 new deaths; 4.6 new deaths per 100 000; -5%), China (960 new deaths; <1 new death per 100 000; -34%), and Japan (549 new deaths; <1 new death per 100 000; -16%).



Updates from the [Western Pacific Region](#)

Annex 1. Data, table, and figure notes

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

Due to public health authorities conducting data reconciliation exercises that 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 countries of interest, time period, and purpose of the request/intended usage. Prior situation reports will not be edited; see covid19.who.int for the most up-to-date data. COVID-19 confirmed cases and deaths reported in the last seven days by countries, territories, and areas, and WHO Region (reported in previous issues) are now available at: <https://covid19.who.int/table>.

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

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

Annex 2. 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%. Likewise, vaccines have shown higher VE against severe disease; thus, small reductions in VE against severe disease due to VOCs may still mean substantial protection.
- Annex 4 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.
- Neutralization studies that use samples collected >7 days and < 6 months after complete vaccination and that use an ancestral strain as the reference are included in the Table

Annex 3. Methods for Figures 5 and 6

Figures include fourteen studies from the Czech Republic, Denmark, Finland, Israel, Qatar, South Africa, the United Kingdom, and the United States of America evaluating the VE against the Omicron variant, and 31 studies of the VE against the Delta variant from various countries from the European Region, Region of the Americas, and South-East Asia Region as well as Qatar and Thailand.

VE studies included in the plot were identified from an ongoing systematic review of COVID-19 vaccine effectiveness studies. All studies were cohort or test-negative studies. Methods for the systematic review and inclusion/exclusion criteria are available on view-hub.org. The studies were conducted during a period when either Delta or Omicron was the predominant circulating variant. Estimates were included if they were of laboratory-confirmed cases of the Omicron or Delta variant. In addition, for the primary series VE, only studies providing VE estimates for discrete time intervals since vaccination, which evaluate changes in VE over time, are included. For the primary series VE, estimates are only included in the plot for studies that report VE for more than one time period.

Annex 4. Summary of Primary Series Vaccine Performance against Variants of Concern (VE data as of 31 March 2022; Neutralization data as of 28 March 2022)

	WHO Emergency Use Listing (EUL) Qualified Vaccines ⁺								Vaccines without WHO EUL ⁺	
	AstraZeneca-Vaxzevria/SII - Covishield	Beijing CNBG-BBIBP-CorV	Bharat-Covaxin	Janssen-Ad26.COV 2.S	Moderna-mRNA-1273	Novavax-Nuvaxovid/SII - Covavax	Pfizer BioNTech-Comirnaty	Sinovac-CoronaVac	Anhui ZL-Recombinant	Gamaleya-Sputnik V
Alpha, Beta, Gamma										
Summary of VE*	<i>(see update from 11 January 2022 for details of vaccine performance against Alpha, Beta, and Gamma variants of concern)</i>									
Delta²⁸										
Summary of VE*	Protection retained against severe disease; possible reduced protection against symptomatic disease and infection									
- Severe disease	↔ ₃	-	-	↓ ₁	↔ ₄	-	↔ ₇	-	-	-
- Symptomatic disease	↔ _{to} ↓ ₆	-	↓ ₁	-	↔ ₂	-	↔ _{to} ↓ ₅	-	-	-
- Infection	↔ _{to} ↓ ₅	-	-	↓↓↓ ₁	↔ ₆	-	↔ _{to} ↓ ₇	-	-	-
Neutralization	↓ ₁₅	↔ _{to} ↓ ₃	↔ _{to} ↓ ₄	↔ _{to} ↓ ₁₁	↓ ₁₅	-	↔ _{to} ↓ ₄₁	↓ _{to} ↓ ₁₀	↔ _{to} ↓ ₂	↓ _{to} ↓ ₃
Omicron										
Summary of VE*	Reduced protection against infection and symptomatic disease; possible reduced protection against for severe disease but limited evidence									
- Severe disease	-	-	-	-	↓/↓ ₁	-	↓↓/↓↓↓ ₃	-	-	-
- Symptomatic disease	↓↓↓ ₁	-	-	-	↓↓/↓↓↓ ₂	-	↓↓↓ ₂	-	-	-
- Infection	↓↓↓ ₁	-	-	-	↓↓↓ ₃	-	↓↓↓ ₃	-	-	-
Neutralization	↓↓↓ ₇	↔ _{to} ↓ ₃	↓↓ ₁	↔ _{to} ↓ ₄	↓↓↓ ₁₈	-	↓↓↓ ₃₈	↓ _{to} ↓ ₅	-	↓↓ ₁

VE refers to vaccine effectiveness and vaccine efficacy. *Summary of VE: indicates the general conclusions but only for the vaccines evaluated against the specific variant. Arrows generalize the magnitude of reduction in VE or neutralization: “↔” <10 percentage point (pp) reduction in VE, or VE >90% with no comparator, or that there was a <2-fold reduction in neutralization; “↓” 10 to <20 pp reduction in VE, or 2 to <5-fold reduction in neutralization; “↓↓” 20 to <30 pp reduction in VE, or 5 to <10-fold reduction in neutralization; “↓↓↓” ≥30 pp 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. The number of studies is shown as subscripts: vaccine effectiveness and neutralization studies informing this table can be found on the [VIEW-hub Resources Library](#). References indicated by superscripts next to VOC name in column 1 are vaccine efficacy results from randomized controlled trials informing this table.

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%. Likewise, vaccines have shown higher VE against severe disease; thus, small reductions in VE against severe disease due to VOCs may still mean substantial protection.
- Annex 4 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 four months post final dose.
- Studies reporting VOC-specific VE estimates for full vaccination (seven days and over after the 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 (where 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.
- Neutralization studies that use samples collected more than seven days and less than six months after complete vaccination and that use an ancestral strain as the reference are included in Annex 4

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](#)
- [Open WHO 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
- [EPI-WIN: tailored information for individuals, organizations, and communities](#)
- Recommendations and advice for the public: [Protect yourself](#); [Questions and answers](#); [Travel advice](#)

References

1. Campbell F, Archer B, Laurenson-Schafer H, et al. Increased transmissibility and global spread of SARS-CoV-2 variants of concern as at June 2021. *Eurosurveillance*. 2021;26(24). doi:10.2807/1560-7917.ES.2021.26.24.2100509
2. UK Health Security Agency. *Technical Briefing 39: SARS-CoV-2 Variants of Concern and Variants under Investigation in England*.; 2022. Accessed April 4, 2022. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1063424/Technical-Briefing-39-25March2022_FINAL.pdf
3. Ferguson N, Ghani A, Hinsley W, Volz E. *Report 50: Hospitalisation Risk for Omicron Cases in England*. Imperial College London; 2021. Accessed December 23, 2021. <https://www.imperial.ac.uk/media/imperial-college/medicine/mrc-gida/2021-12-22-COVID19-Report-50.pdf>
4. Lewnard JA, Hong VX, Patel MM, Kahn R, Lipsitch M, Tartof SY. *Clinical Outcomes among Patients Infected with Omicron (B.1.1.529) SARS-CoV-2 Variant in Southern California*. *Epidemiology*; 2022. doi:10.1101/2022.01.11.22269045
5. Ulloa AC, Buchan SA, Daneman N, Brown KA. *Early Estimates of SARS-CoV-2 Omicron Variant Severity Based on a Matched Cohort Study, Ontario, Canada*. *Epidemiology*; 2021. doi:10.1101/2021.12.24.21268382
6. Wolter N, Jassat W, DATCOV-Gen author group, von Gottberg A, Cohen C. *Clinical Severity of Omicron Sub-Lineage BA.2 Compared to BA.1 in South Africa*. *Infectious Diseases (except HIV/AIDS)*; 2022. doi:10.1101/2022.02.17.22271030
7. Marks KJ, Whitaker M, Agathis NT, et al. Hospitalization of Infants and Children Aged 0–4 Years with Laboratory-Confirmed COVID-19 — COVID-NET, 14 States, March 2020–February 2022. *MMWR Morb Mortal Wkly Rep*. 2022;71(11):429-436. doi:10.15585/mmwr.mm7111e2
8. Stegger M, Edslev SM, Sieber RN, et al. *Occurrence and Significance of Omicron BA.1 Infection Followed by BA.2 Reinfection*. *Infectious Diseases (except HIV/AIDS)*; 2022. doi:10.1101/2022.02.19.22271112
9. Chemaitelly H, Ayoub HH, Coyle P, et al. *Protection of Omicron Sub-Lineage Infection against Reinfection with Another Omicron Sub-Lineage*. *Epidemiology*; 2022. doi:10.1101/2022.02.24.22271440
10. Netzl A, Tureli S, LeGresley E, Muhlemann B, Wilks SH, Smith DJ. *Analysis of SARS-CoV-2 Omicron Neutralization Data up to 2021-12-22*.; 2022. Accessed January 9, 2022. <https://www.biorxiv.org/content/10.1101/2021.12.31.474032v1.full.pdf>
11. Iketani S, Liu L, Guo Y, Liu L, Huang Y, Wang M. Antibody Evasion Properties of SARS-CoV-2 Omicron Sublineages. :12.
12. Yu J, Collier A ris Y, Rowe M, et al. *Comparable Neutralization of the SARS-CoV-2 Omicron BA.1 and BA.2 Variants*. *Infectious Diseases (except HIV/AIDS)*; 2022. doi:10.1101/2022.02.06.22270533
13. Bartsch YC, Cizmeci D, Kang J, et al. *BA.2 Evasion of Vaccine Induced Binding and Functional Non-Neutralizing Antibodies*. *Infectious Diseases (except HIV/AIDS)*; 2022. doi:10.1101/2022.02.25.22271511
14. U.S. Food and Drug Administration. SARS-CoV-2 Viral Mutations: Impact on COVID-19 Tests. Published 2021. Accessed December 17, 2021. <https://www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/sars-cov-2-viral-mutations-impact-covid-19-tests#omicron>

15. Metzger CM, Lienhard R, Seth-Smith HM. PCR performance in the SARS-CoV-2 Omicron variant of concern? *Swiss Med Wkly*. 2021;151(49-50). doi:10.4414/smw.2021.w30120
16. Drain PK, Bemer M, Morton JF, et al. *Accuracy of Rapid Antigen Testing across SARS-CoV-2 Variants*. *Infectious Diseases (except HIV/AIDS)*; 2022. doi:10.1101/2022.03.21.22272279
17. Takashita E, Kinoshita N, Yamayoshi S, et al. Efficacy of Antiviral Agents against the SARS-CoV-2 Omicron Subvariant BA.2. *N Engl J Med*. Published online March 9, 2022:NEJMc2201933. doi:10.1056/NEJMc2201933
18. Planas D, Saunders N, Maes P, et al. *Considerable Escape of SARS-CoV-2 Variant Omicron to Antibody Neutralization*. *Immunology*; 2021. doi:10.1101/2021.12.14.472630
19. VanBlargan LA, Errico JM, Halfmann PJ, et al. *An Infectious SARS-CoV-2 B.1.1.529 Omicron Virus Escapes Neutralization by Several Therapeutic Monoclonal Antibodies*. *Microbiology*; 2021. doi:10.1101/2021.12.15.472828
20. Cameroni E, Saliba C, Bowen JE. Broadly neutralizing antibodies overcome SARS-CoV-2 Omicron antigenic shift. Published December 14, 2021. Accessed December 23, 2021. <https://www.biorxiv.org/content/10.1101/2021.12.12.472269v1>
21. Roche. Ronapreve does not retain neutralising activity against the Omicron variant. Published 2021. Accessed December 17, 2021. https://www.roche.com/dam/jcr:df6dcb4-d787-45d6-9b1d-ffc17d667e4c/2021216_Roche%20statement%20on%20Ronapreve%20Omicron.pdf
22. World Health Organization. Therapeutics and COVID-19: living guideline-3 March 2022. Published online 2022. Accessed March 7, 2022. <https://www.who.int/publications/i/item/WHO-2019-nCoV-therapeutics-2022.2>
23. Natarajan K. Effectiveness of Homologous and Heterologous COVID-19 Booster Doses Following 1 Ad.26.COVID.S (Janssen [Johnson & Johnson]) Vaccine Dose Against COVID-19–Associated Emergency Department and Urgent Care Encounters and Hospitalizations Among Adults — VISION Network, 10 States, December 2021–March 2022. *MMWR Morb Mortal Wkly Rep*. 2022;71. doi:10.15585/mmwr.mm7113e2
24. Hansen C, Schelde A, Moustsen-Helm I, et al. Vaccine effectiveness against infection and COVID-19-associated hospitalisation with the Omicron (B.1.1.529) variant after vaccination with the BNT162b2 or mRNA-1273 vaccine: A nationwide Danish cohort study. Published online April 1, 2022. doi:10.21203/rs.3.rs-1486018/v1
25. Starrfelt J, Danielsen AS, Buanes EA, et al. Age and product dependent vaccine effectiveness against SARS-CoV-2 infection and hospitalisation among adults in Norway: a national cohort study, July – November 2021. Published online March 30, 2022:2022.03.29.22273086. doi:10.1101/2022.03.29.22273086
26. Price AM, Olson SM, Newhams MM, et al. BNT162b2 Protection against the Omicron Variant in Children and Adolescents. *N Engl J Med*. Published online March 30, 2022. doi:10.1056/NEJMoa2202826
27. Wu D, Zhang Y, Tang L, et al. Effectiveness of Inactivated COVID-19 Vaccines Against Symptomatic, Pneumonia, and Severe Disease Caused by the Delta Variant: Real World Study and Evidence — China, 2021. *China CDC Weekly*. 2022;4(4):57-65. doi:10.46234/ccdcw2022.009
28. Ella R, Reddy S, Blackwelder W, et al. Efficacy, safety, and lot to lot immunogenicity of an inactivated SARS-CoV-2 vaccine (BBV152): a, double-blind, randomised, controlled phase 3 trial. Published online July 2, 2021:2021.06.30.21259439. doi:10.1101/2021.06.30.21259439

Advice for preparedness and response to cases of COVID-19 on board ferries in response to the COVID-19 pandemic

Version 3

April 2022

* The EU HEALTHY GATEWAYS Joint Action has received funding from the European Union, in the framework of the Third Health Programme (2014-2020). The content of this document represents the views of the author only and is his/her sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the Consumers, Health, Agriculture and Food Executive Agency (CHAFEA) or any other body of the European Union. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains.

1. Introduction

In January 2020 the European Union HEALTHY GATEWAYS joint action switched from operating under the inter-epidemic mode to operating in an emergency mode, at the request of the European Commission's Directorate-General for Health and Food Safety (DG SANTE). As stated in the Grant Agreement, the objective of the emergency mode is to support coherent response of EU Member States (MS) according to Decision No 1082/2013/EU and the implementation of temporary recommendations issued by the World Health Organization (WHO). Under this emergency mode, EU HEALTHY GATEWAYS is available to respond to any specific requests from DG SANTE or EU MS to provide technical support, advice or ad-hoc training at points of entry as needed.

An ad-hoc working group was established with members from the EU HEALTHY GATEWAYS joint action consortium. The names and affiliations of the working group members who prepared this document are listed at the end of the document.

This advice includes measures for the prevention of transmission and spread of COVID-19 on board ferries.

The working group produced the following guidance, considering the Communications, Recommendations and materials issued by the Commission about travel during the coronavirus pandemic (https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/travel-during-coronavirus-pandemic_en), the temporary recommendations from the World Health Organization (WHO) (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>) and the technical reports of the European Centre for Disease Prevention and Control (ECDC) (<https://www.ecdc.europa.eu/en/coronavirus/guidance-and-technical-reports>) on COVID-19 (18 March 2022).

The guidance provided on this document is based on the current situation of the pandemic and will be revised as needed after considering the epidemiological situation. This Guidance does not and should not impact any safety, environmental protection or security standard on board a ship.

2. Purpose

This guidance is addressed to ferry companies, as well as competent public health authorities at ports.

The objective of these general guidelines is to provide recommendations on preventive measures that ferries should implement to protect passengers, crew members² and onshore personnel, as well as to create an environment of trust in the maritime transport of passengers by ferry.

These guidelines should be adapted to each particular ship according to their own characteristics, traffic and any other factor that could be taken into consideration.

² The term crew members includes any person who is employed or engaged or works in any capacity on board a ferry.

3. Definitions

Close contact: a close contact of a COVID-19 case is any person who had contact with a COVID-19 case within a timeframe ranging from 48 hours before the onset of symptoms of the case, or date of collection of a positive COVID-19 sample for an asymptomatic case, to 10 days after the onset of symptoms or date of collection of positive sample if asymptomatic.

A. High-risk exposure (close) contact:

- A person who had face-to-face contact with a COVID 19 case within 1.5 metres for more than a total of 15 minutes over a 24-hour period (even if not consecutive). For passengers this could include, but is not limited to, participating in common activities, attending a class or sharing the same social space such as at a restaurant. This also includes contact with intimate partners. For crew this may include working in the same area as a case or socialising with a case (including fellow crew members), waiting on a table where a case was dining or leading a social activity where the case was participating
- A person who had physical contact with a COVID-19 case (e.g. such as handshaking, hugging, kissing, sexual activity).
- A person who has stayed in the same cabin with a COVID-19 case.
- A person who had direct contact with infectious secretions of a COVID-19 case (e.g. being coughed on).
- A crew member who entered the cabin of a case while they were inside the cabin, without wearing appropriate PPE.
- Healthcare workers or other persons providing direct care for a known case or handling specimens of a case without wearing appropriate PPE or with a possible breach of PPE or hand hygiene.

B. Low-risk exposure (casual) contact:

Risk assessment of individual cases and their contacts will be conducted by the ship's medical staff and/or public health authorities to identify the low-risk exposure (casual) contacts. It could be possible that all persons on the ship who are not "high-risk contacts" could be considered as low-risk exposure (casual) contacts.

Any data available from contact tracing technologies should also be considered.

Possible case of COVID-19: any person with at least one of the following symptoms: runny nose, sore throat, headache, cough, fever, shortness of breath, sudden onset of anosmia, ageusia or dysgeusia, vomiting or diarrhoea. Additional less specific symptoms may include chills, muscle pain, fatigue (5).

Confirmed case of COVID-19: any person with a positive clinical sample for SARS-CoV-2 nucleic acid or antigen.

Vaccinated individuals: a passenger or crew member who carries a proof of vaccination, and at least 14 days and no more than 270 days have passed since the last dose of the primary vaccination series or if the person has received a booster (i.e. 3rd dose) dose. Children under the age of 12 years are not required to have proof of vaccination and should not be considered when calculating the vaccination coverage among passengers on board.

Heterologous vaccination is acceptable as indicated in the EMA and WHO recommendations(6, 7)³.

Acceptable vaccines are considered those listed in the European Medicines Agency (EMA) or WHO lists.

Listed vaccine (as of 18 March 2022)*	EMA list	WHO list	Doses Series	in	Type
1	Comirnaty (BioNTech and Pfizer)	Yes	Yes	2	mRNA
2	Spikevax (Moderna)	Yes	Yes	2	mRNA
3	Janssen (Johnson & Johnson)	Yes	Yes	1	Vectored
4	Vaxzevria (AstraZeneca, Covishield)	Yes	Yes	2	Vectored
5	Nuvaxovid (Novavax)	Yes	Yes	2	Protein subunit
6	Sinopharm	No	Yes	2	Inactivated
7	Sinovac-CoronaVac	No	Yes	2	Inactivated
8	Covaxin	No	Yes	2	Inactivated
9	Covovax	No	Yes	2	Protein subunit

*Updates can be found in: <https://www.ema.europa.eu/en/human-regulatory/overview/public-health-threats/coronavirus-disease-covid-19/treatments-vaccines/covid-19-vaccines> and <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/covid-19-vaccines>

Proof of vaccination: A valid Digital COVID-19 Certificate (DCC)⁴ or certificate/document to include the following information: (a) name: surname(s) and forename(s); (b) date of birth; (c) disease or agent targeted: COVID-19 (SARS-CoV-2 or one of its variants); (d) COVID-19 vaccine or prophylaxis; (e) COVID-19 vaccine product name; (f) COVID-19 vaccine marketing authorisation holder or manufacturer; (g) number in a series of doses as well as the overall number of doses in the series; (h) date of vaccination, indicating the date of the latest dose received (certificates held by persons aged 18 and above indicating the completion of the primary vaccination series shall be accepted only if not more than 270 days have passed since the date of the latest dose in that series); (i) country of vaccination; (j) certificate issuer; (k) a unique certificate identifier or other means to validate the vaccination such as contact information in order to communicate with the healthcare provider or clinic site that issued the certificate, or the vaccination registry site. An individual will be considered as vaccinated if the above-mentioned definition "Vaccinated individual" is fulfilled.

³ Depending on product availability, countries implementing WHO EUL inactivated vaccines for initial doses may consider using WHO Emergency Use Listing (EUL) vectored or mRNA vaccines for subsequent doses.

- Depending on product availability, countries implementing WHO EUL vectored vaccines for initial doses may consider using WHO EUL mRNA vaccines for subsequent doses.

- Depending on product availability, countries implementing WHO EUL mRNA vaccines for initial doses may consider using WHO EUL vectored vaccines for subsequent doses.

⁴ https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/safe-covid-19-vaccines-europeans/eu-digital-covid-certificate_en

Proof of recovery: A valid Digital COVID-19 Certificate (DCC) or a document/certificate issued by a competent authority and containing the following data fields: (a) name: surname(s) and forename(s); (b) date of birth; (c) disease or agent the citizen has recovered: COVID-19 (SARS-CoV-2 or one of its variants); (d) date of first positive test result (NAAT or RADT); (e) Member State or third country in which test was carried out; (f) certificate issuer; (g) certificate valid from; (h) certificate valid until (not more than 180 days after the date of first positive test result); (i) a unique certificate identifier or other means to validate the proof of recovery such as contact information in order to communicate with the issuing authority.

Proof of diagnostic test result: A valid Digital COVID-19 Certificate (DCC) or a document/certificate issued by a competent authority or another authorised body such as an approved laboratory or testing facility and containing the following data fields: (a) name: surname(s) and forename(s); (b) date of birth; (c) disease or agent targeted: COVID-19 (SARS-CoV-2 or one of its variants); (d) the type of test; (e) test name (optional for NAAT test); (f) test manufacturer (optional for NAAT test); (g) date and time of the test sample collection; (h) result of the test; (i) testing centre or facility (optional for rapid antigen test); (j) Member State or third country in which the test was carried out; (k) certificate issuer; (l) a unique certificate identifier or other means to validate the diagnostic test such as contact information in order to communicate with the issuing authority.

Previously infected individuals: crew members or passengers who have recovered from a SARS-CoV-2 infection and less than 180 days have passed since the date of positive test result (NAAT or other RADT).

Isolation: separation of ill persons from others in such a manner as to prevent the spread of infection.

Quarantine: the restriction of activities and/or separation from others of persons who are not ill but have been exposed to COVID-19 in such a manner as to prevent the possible spread of infection.

Nucleic Acid Amplification Test (NAAT): RT-PCR or other Nucleic Acid Amplification Test (NAAT), which should have the CE certification marking and should be in the list of the JRC IVD database (<https://covid-19-diagnostics.jrc.ec.europa.eu/>) or in the list of FDA with the in Vitro Diagnostics EUAs - Molecular Diagnostic Tests for SARS-CoV-2 and authorised for screening (testing asymptomatic individuals without known exposure) and can be used at home or otherwise as specified in the authorization list for certified laboratories or health care settings: <https://www.fda.gov/medical-devices/coronavirus-disease-2019-covid-19-emergency-use-authorizations-medical-devices/in-vitro-diagnostics-euas-molecular-diagnostic-tests-sars-cov-2#individual-molecular>. Further information on diagnostics can be found on "FIND", the global alliance for diagnostics: <https://www.finddx.org/>

Rapid antigen detection test (RADT): any type of RADT listed in the document "Common list of COVID-19 rapid antigen test tests, including those of which their test results are mutually recognised, and a common standardised set of data to be included in COVID-19 test result certificates", https://ec.europa.eu/health/system/files/2022-03/covid-19_rat_common-list_en.pdf (8).

4. Contingency planning for the prevention and control of COVID-19

Ferry operators should have in place written contingency plans (outbreak management plan) for the prevention and control of possible⁵ cases of COVID-19 that all crew on board should have good knowledge of and readiness to implement. In the written contingency plan (outbreak management plan) a COVID-19 task force commanded by the master of the ship should be defined.

Where applicable, medical facilities and/or medical staff (ship's doctor or the master of the ship or a medically trained officer) on board ferries should be assessed and reinforced so as to be able to manage COVID-19 cases as described in section 7 of the current document. Supplies and equipment to be available on board are described in paragraph 6.4 of the current document.

Further information for passenger ships on international voyages about the recommended medical facilities, medication and medical staff competency are described in the "European Manual for Hygiene Standards and Communicable Disease Surveillance on passenger ships" available here <https://www.shipsan.eu/Home/EuropeanManual.aspx>

"Designated crew members" mentioned in this document refers to the designated functions in each ship's contingency plan (outbreak management plan) for the prevention and control of COVID-19 under the guidance of the master of the ship. The master of the ship should keep the company's land-based personnel informed for the operation of the above mentioned plan and should keep a relevant record book/log.

The plan should include the measures that should be implemented for the prevention and control of COVID-19 cases and procedures for the isolation of possible/confirmed cases of COVID-19 as these are described in the following paragraphs. Training of crew members for the implementation of the contingency plan (outbreak management plan) should be ensured as this is described in the guidance documents published by the World Health Organization and EU HEALTHY GATEWAYS:

<https://www.who.int/publications-detail/operational-considerations-for-managing-covid-19-cases-or-outbreaks-on-board-ships-interim-guidance> and
<https://www.healthygateways.eu/Novel-coronavirus#Interim>

Ferry operators should take into consideration when developing the contingency plans (outbreak management plans) IMO Circular Letter No.4204/Add.16 (6 May 2020) - Coronavirus (COVID 19) – "COVID-19 related guidelines for ensuring a safe shipboard interface between ship and shore-based personnel" available here:

<https://wwwcdn.imo.org/localresources/en/MediaCentre/HotTopics/Documents/COVID%20CL%204204%20adds/Circular%20Letter%20No.4204-Add.16%20->

⁵ Possible case: any person with at least one of the following symptoms: cough, fever, shortness of breath, sudden onset of anosmia, ageusia or dysgeusia. Additional less specific symptoms may include headache, chills, muscle pain, fatigue, vomiting and/or diarrhoea (source: Case definition for coronavirus disease 2019 (COVID-19), as of 3 December 2020. <https://www.ecdc.europa.eu/en/covid-19/surveillance/case-definition>).

[%20Coronavirus%20\(Covid%2019\)%20-%20Covid-19%20Related%20Guidelines%20For%20Ensuring%20A%20Safe%20Shipboard.pdf](#)

The contingency plan (outbreak management plan) should include the following as applicable:

A. Clearly described preventive measures

- Physical distancing measures
- Personal hygiene rules
- Personal Protective Equipment (PPE) use
- Self-monitoring of symptoms for transport staff
- Procedures for responding to a possible/confirmed case (temporary isolation, arrangements for providing the preliminary medical examination by the ship's doctor or the master of the ship or a medically trained officer as applicable)
- Standard Operating Procedures (SOP's) for cleaning and disinfection covering all types of surfaces and materials and defining the disinfectants and the methods to be used
- SOPs for laundry of linen and clothing
- SOPs for cleaning and disinfection of body fluid spills in the environment
- Food safety management
- Potable water safety management
- Recreational water safety management
- Ventilation of indoor areas
- Communication plan including reporting public health events to the competent authorities
- Data management of health or screening documents (e.g. Passenger Locator Forms, Maritime Declaration of Health) in accordance with Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (GDPR) and national regulations on the processing of personal data and medical confidentiality.

B. Measures for the response and management of a possible/confirmed case

- Interview of cases, using standardised questions in according to the procedures of the country in the port of call
- Isolation/separation plan of the possible/confirmed case
- Communication with competent authorities at ports
- Collaboration with the national/local competent authorities for contact tracing and quarantine of contacts ashore
- Response measure to symptomatic case or cases and to asymptomatic case or cases and to their contacts (vaccinated or unvaccinated) among passengers and crew.
- Referral (if required) to shore to hospitals or isolation/quarantine facilities
- Cleaning and disinfection procedures of contaminated spaces, objects and equipment (daily and final cleaning and disinfection)
- Waste management procedures
- Communication strategy for contacting the contacts of a confirmed COVID-19 case among the travellers retrospectively in accordance with the local/national procedures in the country of the port of call

5. Options for measures to prevent COVID-19 infectious passengers and crew from boarding

5.1. Diagnostic testing and vaccination of crew members

Ferry operators should perform NAAT⁶ for SARS-CoV-2 to crew members the first time they start their regular work schedule on board the ship: NAAT should be performed within the 72 hours before embarking the ship, and an RADT should be performed the day of embarkation. Additionally, once on board and working in regular work schedule, unvaccinated crew members should be tested by NAAT or RADT at least every one week, and vaccinated or recovered crew members should be tested by NAAT or RADT every two weeks. The testing of vaccinated crew members could be split, so that half of the crew members of each department are tested each week. . This practice should be considered as an important additional layer of measures applied, and should not create a false sense of security.

If positive results are found, then the contingency plan/outbreak management plan for management of cases available on board needs to be activated and implemented, as described in the EU HEALTHY GATEWAYS advice "Advice for cruise ship operators for preparedness and response to the outbreak of COVID-19" available here: <https://www.healthygateways.eu/Novel-coronavirus>. Positive results from antigen testing should be confirmed by NAAT³ testing whenever possible.

Crew should have available for inspection by the competent authorities the test results in either electronic or hard copy.

The ship that has medical doctor and/or nurse on board should be supplied with at least one antigen test for each of the crew members plus some additional kits as a reserve, and in the event that a possible/confirmed case is identified among crew members, all the crew members on boards should be tested.

It is recommended that all crew members be vaccinated against COVID-19. Crew members , as transportation workers, are recommended to be considered as a priority group by EU MS for vaccination against COVID-19 in accordance to the European Commission Communication². Vaccination of crew for ships sailing in EU MS should be legally acquired from official sources. Vaccinated crew members should hold an official proof from an internationally recognized authority (i.e. EMA, WHO or US FDA) vaccines and inform their employer about their vaccination status. If they have been vaccinated in an EU member state, they should hold a proof of vaccination issued by the competent authority of that Member State. Any data kept by the ferry operators should be handled in accordance with the relevant legislation for the personal data protection.

⁶ RT-PCR or other Nucleic Acid Amplification Test (NAAT) could be conducted, which should have the CE certification marking and should be in the list of the JRC IVD database (<https://covid-19-diagnostics.jrc.ec.europa.eu/>) or in the list of FDA with the in Vitro Diagnostics EUAs - Molecular Diagnostic Tests for SARS-CoV-2 and authorised for screening (testing asymptomatic individuals without known exposure) and can be used at home or otherwise as specified in the authorization list for certified laboratories or health care settings: <https://www.fda.gov/medical-devices/coronavirus-disease-2019-covid-19-emergency-use-authorizations-medical-devices/in-vitro-diagnostics-euas-molecular-diagnostic-tests-sars-cov-2#individual-molecular>

5.2. Training and raising crew member awareness

Ferry operators should provide training and instructions to their crew members regarding the recognition of the signs and symptoms of COVID-19 and to know their role and responsibilities in case of an event. In particular, information should be provided to all crew members for the immediate reporting of signs and symptoms indicative of COVID-19 to their designated supervisor/manager or medical staff for themselves, other crew members or passengers. Crew members should be adequately consulted, equipped, trained and instructed on how to carry out their duties while minimising risks to their own health, and also the health of their co-workers and passengers³. This should include, for example, information on how to adequately use personal protective equipment, maintain hygiene and minimise unnecessary contacts with others.

Crew members that develop signs and symptoms indicative of COVID-19 will have to immediately leave their post and follow guidance provided in paragraph 7.

Crew members should be reminded of the procedures that are to be followed when a crew member displays signs and symptoms indicative of COVID-19 or when a passenger reports on such symptoms. Crew members should minimize the visits ashore as much as possible in order to reduce contacts with people.

5.3. Pre-boarding screening for all passengers on board ferries on international voyages

All rules and conditions decided by a country for passengers will have to be implemented during the pre-embarkation screening at foreign ports before boarding of these passengers on board ships on international voyages. Companies are advised to be familiar with those requirements before allowing passengers to access the ship in order to avoid problems upon arrival. Companies should check that all the requirements of the country of destination are met and should prevent passengers from embarking in case they don't comply with any of them.

5.4. Measures before boarding during ticket purchasing

5.4.1. Exclusion policy by the EUMS

EU Member States that have developed an exclusion policy with regards to transport and COVID-19 should inform the travelling public about the policy through their travel agents, travel companies, conveyance operators and other businesses operating in the tourism sector. This policy can exclude symptomatic or potentially exposed travellers from travelling. In this respect, any person experiencing symptoms compatible with COVID-19, or anyone who has been in contact with a confirmed case of COVID-19 would not be accepted on board conveyances and at tourist accommodation sites. If a country has decided to include any other pre-requisite such as laboratory testing (e.g. a molecular test before departure) as part of the exclusion policy for tourists, this should also be communicated to incoming passengers. EU MS when deciding about laboratory testing as a condition for travel should take into consideration the limitations, including the effectiveness, cost and the availability of tests. Molecular tests cannot

detect incubating travellers, where it is still possible for infection to occur after the laboratory testing has been performed.

Digital methods for as many processes as practicable should be applied at the terminal, such as on-line purchasing, issuing of boarding passes, automatic passport and ID scanners, to reduce the time that passengers spend in the terminal and to avoid congestion.

Restrictions or special measures to prevent potential exposure could be applied to tourists belonging to high risk groups. They could be advised to avoid remote destinations away from urban centres where health care capacities are not available or are basic, and where the transportation network is infrequent.

5.4.2. Promoting a contactless environment

Ferry companies and travel agencies should prioritise and promote the electronic sales of tickets while ensuring accessibility to ticket sales for people having no access to electronic means or who are unable to use such electronic means. As far as practicable, a contactless environment should be favoured.

5.4.3. Pre-travel information by travel agencies and ferry companies

Travel agencies should provide pre-travel information to customers about health issues with their travel package. In this context, information regarding the symptoms of COVID-19, the exclusion policy implemented by the country, the requirements of the country of destination, health risks especially for vulnerable groups and the importance of preventive measures should be provided in advance of travel. These materials should be available in the national language, English and, where needed, other languages based on the most common language profiles of the passengers using the respective conveyance. If it is decided to distribute the information to the passengers in a printed format/leaflet, then it should be done in a manner to avoid direct hand contact between two persons or to avoid many different persons touching the leaflets.

The information should include:

- boarding screening measures where applied;
- symptoms compatible with COVID-19, including sudden onset of at least one of the following: cough, fever, shortness of breath, loss of taste/smell;
- if passengers or crew have been vaccinated, they should carry with them the SARS-CoV-2 vaccination certificate, and present it to the ship officers and/or health authorities (if asked as part of the risk assessment of a COVID-19 event);
- exclusion policy and likelihood of being denied boarding e.g. if they have developed symptoms, or have tested positive during the pre-embarkation/ day of embarkation testing, or have been in contact during the last 14 days with a COVID-19 patient or any other rule according to the country policy (embarkation and disembarkation) or company policy;
- health risks for vulnerable groups
- hygiene measures (hand washing with soap and water or hand hygiene with alcohol-based hand-rub solutions, respiratory (coughing and sneezing) etiquette,

disposal of used tissues, use of face mask⁷, physical distancing, elimination of handshaking, avoiding touching the nose, eyes and mouth without previously washing hands etc.);

- actions to take in case of relevant symptoms develop;
- rules and health measures implemented on board the ship (e.g. use of face masks, physical distancing, fines policy for non-compliance etc.);
- need to immediately report to transport staff if passengers develop cough, fever, shortness of breath, loss of taste/smell during travel;
- need to immediately seek medical care if developing fever, cough, difficulty breathing loss of taste/smell and sharing previous travel history with the health care provider.

As mentioned, travel companies and travel agents should provide clear information to travellers about the likelihood to be refused boarding according to the exclusion policy adopted by the country.

Examples of reasons for refusing boarding are:

- a) if passengers have symptoms indicative of COVID-19
- b) if an unvaccinated passenger is a close contact of a confirmed case of COVID-19
- c) in case passengers do not respect the local measures in place for preventing transmission (e.g. physical distancing, use of face masks etc.)
- d) if passengers don't comply with all the requirements of the country of destination.

Ferry operators and tour operators should provide all relevant information on their websites and in the electronic reservation systems, about the exclusion policy, as well as any pre-requisites and the country specific rules during boarding and travel. It is suggested to explore the possibility to have a number of means to provide this information, so intending passengers have a number of opportunities to consider (e.g. to be obligatory to read the information in order to complete the reservation). Passengers could be redirected to national/local authorities' website for further information about COVID-19 (e.g. symptoms, high risk persons and national rules).

Passengers should provide a telephone number and an email address during the purchasing process. The company should keep this information for 1 month and make available to the port health authority if requested.

5.5. Options for measures during boarding

5.5.1. Physical distancing

It is advised that physical distancing in accordance with national policy (e.g. 1,5 meters) should be applied at waiting areas and during boarding by adopting special

⁷ "Face masks" is a generic term which covers both medical and non-medical masks.

Medical face mask (also known as surgical or procedure mask):

Medical face mask (also known as surgical or procedure mask): a medical device covering the mouth, nose and chin to provide a barrier that limits the transmission of an infective agent between hospital staff and patients. The masks are used by healthcare workers to prevent large respiratory droplets and splashes from reaching the mouth and the nose of the wearer and to help reduce and/or control the spread of large respiratory droplets at source. Medical masks comply with requirements defined in European Standard EN 14683:2014.

marking and controlled entry measures. Dedicated lanes or separating different passenger flows should be considered.

Crew members could oversee the process and compliance with the physical distancing measures to avoid crowding.

The transport of persons with disabilities and reduced mobility as well as elderly should be given priority. Crew members who, in line with the EU rules on passenger rights, provide assistance to persons with disabilities and reduced mobility as well as elderly, should be provided with the necessary PPE.

5.5.2. Pre-boarding screening

Pre-boarding screening efforts could be considered by the competent authorities in each country to assess incoming travellers for any symptoms or previous exposure to COVID-19 on vessels sailing on international or national voyages. The competent authorities in EUMS will decide who will implement the pre-boarding screening and develop the implementation protocol.

If a country decides that the ferry companies implement the pre-boarding screening then in cases where boarding will not be allowed as a result of the pre-boarding screening, the ferry operator should inform the competent public health authorities at the port about the specific case that was not allowed boarding due to symptoms development, exposure or failure to comply with all the requirements. Competent authorities at the port will then conduct an initial assessment and further manage the ill or exposed passenger and its contacts.

5.5.2.1. Boarding refusal

A standard policy should exist about denying boarding to any exposed or symptomatic possible/confirmed case among passengers and crew as described in paragraph 5.4. To encourage honest reporting of exposure and symptoms the ticket cancellation policy should take into consideration the Commission's recommendation of 13.5.2020 on vouchers offered to passengers and travellers as an alternative to reimbursement for cancelled package travel and transport services in the context of the COVID-19 pandemic available here: https://ec.europa.eu/info/files/covid-19-recommendation-vouchers-offered-passengers-and-travellers-alternative-reimbursement-cancelled-package-travel-and-transport-services_en

According to the above and in accordance with the exclusion policy adopted by each country, boarding may be denied especially if during the pre-boarding entry screening it is identified that passengers have symptoms indicative of COVID-19. If boarding will not be allowed, then local rules for the subsequent use or not of the ticket will apply.

If boarding will not be allowed the competent health authority will be informed to apply the necessary procedures according to the local rules

5.5.3. Passenger Locator Form

It should be considered to use Passenger Locator Forms (PLF) for ships on international voyage to ensure that contact information of passengers is available, in order to facilitate contact tracing if a case of COVID-19 is detected. Passenger Locator Forms

could be disseminated before boarding or during boarding and collected by transport staff or public health authority staff before or during disembarkation. The company should keep the PLF for 2 months and make available to Public Health Authority if requested. Electronic completion of Passenger Locator Forms before boarding could be used in the future. The passenger locator form for ships is available at Annex 2.

EU HEALTHY GATEWAYS has developed an EU application for common digital PLFs for the air, maritime and ground transport sectors: <https://www.euplf.eu/en/home/index.html>. Information that travellers provide in PLFs can be used by public health authorities in destination countries to rapidly contact travellers, with the goal of protecting the health of travellers' and their contacts, as well as preventing further disease spread.

5.5.4. Information package for passengers

During boarding and during the journey information should be clearly communicated to passengers (e.g. electronic posters, recorded messages) on the symptoms of the disease, preventive measures and instructions for immediate reporting to crew members if they develop symptoms during travelling.

6. Measures for preventing and limiting transmission of COVID-19 on board ferries

6.1. Physical distancing

To ensure that measures related to physical distancing on board ships are maintained, it is advised that ferry ship operators reduce the maximum number of passengers on board ships where this is necessary. The capacity reduction decision should be based on the epidemiological situation of the country and should be re-assessed and re-considered at two-week intervals or on a monthly basis. Hence, ferry ship operators are advised to estimate the maximum number of passengers per ship as these are described in paragraph 5.2 of the current document.

It is advised to consider allowing passengers on short ferry routes to stay in the car or truck if overall safety can be sufficiently ensured. In case passengers are recommended or requested to remain in their vehicles on board ferries during short voyages (e.g. less than one hour), such a measure should apply on open decks only, unless additional safety precautions are taken in line with applicable EU rules [3]. Where needed, capacity of decks should be adjusted to ensure safety and personnel trained in fire suppression should be present.

When conditions allow for it, use as far as practicable the open spaces of the vessel.

Unnecessary movement of passengers on board conveyances should be avoided.

It is advised to ensure that on all internal and external areas of the ship the physical distancing in accordance with national policy (e.g. 1.5 meters) is maintained in combination with the use of face masks. Designated crew members could oversee the process and compliance with the physical distancing measures in all areas.

In public toilets the minimum number of passengers should enter so as to maintain the physical distancing in accordance with national policy (e.g. 1.5 meters) between passengers.

It is suggested not to use elevators.

To ensure physical distancing measures are maintained during disembarkation it is advised that disembarkation is done sequentially per deck and seat number or other appropriate system.

6.2. Hand hygiene and respiratory etiquette

Hand hygiene should be applied by passengers and crew members with soap and water. If hands are not visibly soiled, an alternative alcohol-based hand-rub solution may be used. It should be noted that the use of gloves does not replace hand hygiene and that glove use in the community is not recommended to prevent transmission of SARS-CoV-2.

Stations with alcohol-based hand-rub solutions (containing at least 60% ethanol or 70% isopropanol) should be available at all entrances of the conveyances and other areas such as toilets, check-in areas, bars and restaurants.

Ferry companies should provide information to passengers and crew members on hand hygiene related issues and where necessary the appropriate facilities and equipment:

- Hand washing techniques (use of soap and water, rubbing hands for at least 20 seconds etc.). The use of gloves does not replace hand hygiene and could in certain circumstances lead to an increased risk of contamination.
- When hand washing is essential (e.g. before boarding and after disembarkation from conveyances, after assisting an ill traveller or after contact with environmental surfaces they may have contaminated (e.g. handrails), before putting on or after removing the face mask, before putting on or removing gloves, after using the toilet, before touching our face etc.)
- When the use of antiseptic is advised and how this can be done
- Respiratory etiquette during coughing and sneezing with disposable tissues or clothing
- Avoid touching the eyes, nose or mouth.
- Avoiding close contact with people suffering from acute respiratory infections
- Appropriate waste disposal
 - Proper use and storage or disposal of face masks (medical masks or respirators)
 - Avoiding close contact with people suffering from acute respiratory infections

Respiratory etiquette should be implemented in all areas: the nose and mouth should be covered with paper tissue when sneezing or coughing and then the tissue should be disposed of immediately in a no touch bin and meticulous hand hygiene should be performed by using water and soap or an alcohol-based hand rub solution. If paper tissues are not available, coughing or sneezing into the elbow is recommended. For this reason, it is important to have available in different areas around the ferry relevant supplies (e.g. tissues or paper towels and disposable gloves, no touch bins etc.). Information about the respiratory etiquette and hand hygiene should be provided to passengers via recorded communications, leaflets, infographics, electronic posters etc.

6.3. Preventing droplet transmission by the use of face masks⁸

Ferries are semi-closed environments with common areas that may allow extended periods of close contact between people. It is suggested that crew members and passengers use medical face masks (and that strategies to improve fit are considered). Respirators (e.g. FFP2 standard or equivalent) could also be considered for crew members and passengers.

Further details about strategies that can be used by crew members to improve face mask fit can be found here: <https://www.ecdc.europa.eu/en/publications-data/using-face-masks-community-reducing-covid-19-transmission>

Face masks should be used by all crew members at all times on board when exiting/outside of individual cabins (exceptions include during eating and drinking, in which case physical distancing should still be practiced). This should also apply to crew members who are off duty and outside of cabins, as well as shore-based personnel (e.g. maritime pilots, port workers, medical personnel etc.) boarding the ship.

Ferry operators should be responsible for providing (free of charge) face masks and other necessary PPE to the crew members.

Face masks should be used by passengers at all times in all areas on board when exiting/outside of their cabins (exceptions include during eating or drinking at restaurants and bars, in which case physical distancing should still be practiced). Crew members and passengers should use a face mask (preferably a medical face mask, or FFP2 mask or equivalent that fits well) in any public indoor space as well as on any public outdoor space when it is overcrowded, in addition to maintaining physical distancing. Face masks must be worn outdoors if physical distancing cannot be maintained. When crew members and passengers are ashore they should follow the rules of each country.

Face masks should be used at all times during embarkation, disembarkation, when entering or at the terminal station and in accordance with the local regulations.

An overview of recommended PPE for crew and passengers on board ships (in the context of lifting restrictive measures in response to the COVID-19 pandemic) can be found here: <https://www.healthygateways.eu/Novel-coronavirus>

If the passenger does not arrive with their own face mask, face masks should be made available for passengers at the terminal. Additional PPE should be provided upon request on board the ship.

Medical face mask (also known as surgical or procedure mask):

a medical device covering the mouth, nose and chin to provide a barrier that limits the transmission of an infective agent between hospital staff and patients. The masks are used by healthcare workers to prevent large respiratory droplets and splashes from reaching the mouth and the nose of the wearer and to help reduce and/or control the spread of large respiratory droplets at source. Medical masks comply with requirements defined in European Standard EN 14683:2014.

Information about the correct use of face masks should be provided to passengers via audio messages, leaflets, TV, infographics, websites or electronic posters etc. and at the terminal stations.

6.4. Supplies and equipment

Adequate medical supplies and equipment should be available on board the ship in appropriate quantities compared to the number of passengers/crew on board to respond to a case or an outbreak among crew.

Adequate supplies of rapid antigen diagnostic tests (only for ships with a medical doctor/nurse on board), disinfectants, personal protective equipment and hand hygiene supplies should also be carried on board ships as well as body temperature devices.

Special procedures should be put in place to minimize contact between crew members and suppliers and other workers from the port.

Further details about PPE and supplies specific to COVID-19 can be found at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance> (please see: a) COVID-19 operational support and logistics disease commodity packages and b) Technical specifications of personal protective equipment for COVID-19). Further recommendations for the type of PPE required according to the job position and the setting can be found here:

https://www.healthygateways.eu/Portals/0/plcdocs/EUHG_PPE_Overview_24_04_2020_F.pdf?ver=2020-05-20-201841-010

6.5. Ventilation and air-conditioning

Ferries interiors should be adequately ventilated.

The minimum required air exchanges per hour for each space on the ship should be respected and if possible the air exchanges should be further increased in order to reduce the risk of transmission. When possible, direct air flow should be diverted from groups of individuals (especially if they are stationary).

If technically possible, the use of air recirculation should be avoiding as much as possible by closing the recirculation dampers (via the Building Management System or manually) of all the air handling units (AHUs). This decision should be taken after consultation of the manufacturer and considering the cooling and heating capacity of the system. In case it is not possible to completely stop the recirculation of the air, the ship should explore improving air filtration of the return air as much as possible such as using ePM1 80% or HEPA filters or Ultraviolet Germicidal Irradiation (UVGI). The fan coils (units with local/cabin level circulation) should either be switched off or operate so that the fans are continuously on. Exhaust ventilation systems of toilets should always be kept on, and should create negative pressure.

It is not recommended to change heating, cooling and humidification set points of the HVAC system.

All maintenance works related to the HVAC system, including changing the central outdoor air and extract air filters, should be conducted according to the usual maintenance

schedule. Duct cleaning should be avoided during the COVID-19 pandemic. Regular filter replacement and maintenance work shall be performed with common protective measures including adequate PPE.

If technically possible, the medical facilities, as well as the designated isolation spaces, should be connected to separate AHU than the rest of the spaces of the ship.

If aerosol-generating procedures are essential to be performed in the medical facilities of the ship, then the area should be under negative pressure and achieve at least 1 air changes per hour if this is feasible.

Information on ventilation and heating is provided by ECDC on the technical report titled Heating, ventilation and air-conditioning systems in the context of COVID-19 available here: <https://www.ecdc.europa.eu/en/publications-data/heating-ventilation-air-conditioning-systems-covid-19>

Cabins should be adequately ventilated and should remain empty with the door open for at least one hour prior to the use by the next passengers. In case a cabin empties it should not be used by other passengers on the same itinerary.

6.6. Cleaning and disinfection guidelines

The personnel in charge of cleaning and disinfecting the cabins or isolation rooms occupied by possible/confirmed cases must be trained, protected and must follow rigorous protocols.

EU HEALTHY GATEWAYS has produced suggested procedures for cleaning and disinfection of ships during the pandemic of COVID-19 (VERSION 2 - 20/04/2020), which can be found here:

https://www.healthygateways.eu/Portals/0/plcdocs/EU_HEALTHY_GATEWAYS_COVID-19_Cleaning_Disinfection_ships_21_4_2020_F.pdf?ver=2020-04-21-154731-953

This document includes advice about specifications for the training of cleaning staff and use of PPE, information about the cleaning equipment and materials to be used, and a summary of antimicrobial agents effective against coronaviruses. It further outlines suggested procedures for cleaning and disinfection for different materials and areas of the ships including health care and general settings.

6.7. Passenger facilities on board ships e.g. bars, restaurants, dining areas and food management

Food hygiene rules must be strictly followed. Passengers should wash or disinfect their hands (with an alcohol-based hand rub solution) upon entering and exiting the food service areas. Crew members could be present to monitor passenger compliance, especially during peak service times. If disposable cutlery cannot be used then these should be washed and disinfected at > 77 °C for at least 30 seconds, or at 82 °C or with chlorine solution of 200ppm at minimum temperature of 24°C with contact time 7 seconds and then air dried.

Trays, napkins, soft drinks, straws etc. should be handed over by the staff to the customers and the customers should not collect them themselves.

It is preferable that dining tables are used outdoors respecting physical distance measures. If dining tables are used indoors, then physical distancing measures should be respected as well.

6.8. Reporting of symptoms

It is of high importance that crew members should immediately report to supervisors any mild or severe symptoms compatible with COVID-19. Any crew with COVID-19 compatible symptoms should immediately self-isolate, be provided with appropriate PPE (e.g. medical face mask) and inform their designated supervisor/manager and medical staff.

7. Managing COVID-19 cases on board

7.1. Management of a possible/confirmed case

As soon as a possible/confirmed case is detected the contingency plan (outbreak management plan) should be activated.

The master or the designated officer in the absence of a doctor on board shall carry out a clinical examination of the patient in accordance with the training received and report their findings to the medical teleconsultation centre (TMAS at sea or local rescue at dockside).

Following preliminary medical examination, if it is determined that there is a possible/confirmed case of COVID-19 on board, the patient should be isolated in one of the designated isolation cabins with negative pressure if available or in a designated cabin, room or quarters and infection control measures should be continued until disembarkation and transfer of the patient to the hospital ashore. The crew members should identify the close contacts and will accommodate them in the cabins designated for that purpose. Advice for management of possible/confirmed cases can be found in the EU HEALTHY GATEWAYS Interim advice for ship operators for preparedness and response to the outbreak of COVID-19, available at: <https://www.healthygateways.eu/Novel-coronavirus>

7.2. Management of contacts

Management of contacts will take place according to the national/local policies by the national/local competent authorities. Close contacts will not be allowed to travel internationally and will be quarantined ashore in a designated facility in according to the procedures of the country.

Advice for contact definition and management can be found in the following links:

- EU HEALTHY GATEWAYS, Interim advice for ship operators for preparedness and response to the outbreak of COVID-19, available at: <https://www.healthygateways.eu/Novel-coronavirus>
- ECDC, Contact tracing: Public health management of persons, including healthcare workers, having had contact with COVID-19 cases in the European Union - third update <https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-contact-tracing-public-health-management-third-update.pdf>

- WHO, Operational considerations for managing COVID-19 cases/outbreak on board ships <https://www.who.int/publications/i/item/operational-considerations-for-managing-covid-19-cases-outbreak-on-board-ships>

7.3. Disembarkation

Possible/confirmed cases should not come into contact with other people while disembarking and should therefore disembark in such a way that they encounter only a minimum number of crew members and no passengers. They could take a different route and/or disembark with a time lag (10 minutes). Possible/confirmed cases should carry their luggage and personal belongings if they are in a fit state to do so. Wearing a medical mask is recommended. Possible/confirmed cases should be informed of the precautions to be taken for themselves and their entourage.

The competent authorities at the destination will provide advice on the management of the possible/confirmed case and their contacts.

7.4. Reporting

In accordance with the International Health Regulations (2005), the officer in charge of the ship must immediately inform the competent authority at the next port of call about any possible/confirmed case of COVID-19.

For ships on international voyage, the Maritime Declaration of Health (MDH) should be completed and sent to the competent authority through the National Single Window in accordance with the local requirements at the port of call.

Ship operators must facilitate application of health measures and provide all relevant public health information requested by the competent authority at the port. The officer in charge of the ship should immediately alert the competent authority at the next port of call regarding the possible/confirmed case to determine if the necessary capacity for transportation, isolation, laboratory diagnosis and care of the possible/confirmed case/cluster of cases of COVID-19 is available at the port. The ship may be asked to proceed to another port in close proximity if this capacity is not available, or if warranted by the medical status of the possible/confirmed case/cluster of cases of COVID-19. It is important that all arrangements are conducted as quickly as is feasible to minimise the stay of symptomatic possible/confirmed case/cases on board the ship.

Annexes

Annex 1

Pre-boarding health declaration questionnaire

(The questionnaire is to be completed by all adults before embarkation)

NAME OF VESSEL	SHIPPING COMPANY	DATE AND TIME OF EMBARKATION	PORT OF DISEMBARKATION
Contact telephone number for the next 14 days after disembarkation:			
First Name as shown in the Identification Card/Passport:	Surname as shown in the Identification Card/Passport:	SEAT TYPE A. ECONOMY (DECK) B. ASSIGNED SEAT C. BUSINESS D. CABIN	NUMBER OF SEAT/ CABIN:
First Name of all children travelling with you who are under 18 years old:	Surname of all children travelling with you who are under 18 years old:	SEAT TYPE A. ECONOMY (DECK) B. ASSIGNED SEAT C. BUSINESS CABIN	NUMBER OF SEAT/ CABIN:

Questions

Within the past 14 days	YES	NO
1. Have you or has any person listed above, presented sudden onset of symptoms of fever or cough or difficulty in breathing or sudden loss of taste/smell, runny nose, sore throat, vomiting or diarrhoea?		
2. Have you, or has any person listed above, had close contact with anyone diagnosed as having COVID-19?		
3. Have you, or has any person listed above, provided care for someone with COVID-19 or worked with a health care worker infected with COVID-19?		
4. Have you, or has any person listed above, worked in close proximity to or shared the same classroom environment with someone with COVID-19?		
5. Have you, or has any person listed above, travelled with a patient with COVID-19 in any kind of conveyance?		
6. Have you, or has any person listed above, lived in the same household as a patient with COVID-19?		
Test results and vaccination		

1. Have you been tested for COVID-19 with a molecular method (RT-PCR) within the past 72 hours (if the country of disembarkation requires it)?	<input type="checkbox"/> No <input type="checkbox"/> Pending results <input type="checkbox"/> Positive* <input type="checkbox"/> Negative
2. Do you have a valid proof of vaccination or recovery?	<input type="checkbox"/> No <input type="checkbox"/> Yes

* Embarkation on board the vessel is prohibited only if there is an affirmative answer

Annex 2

Passenger Locator Forms (PLF) for ferries

Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (GDPR) should be taken into consideration.

The form is available in Word format from the following link:
<https://www.healthygateways.eu/Translated-Passenger-Locator-Forms>

PASSENGER LOCATOR FORM – FERRY SHIPS

Date of form completion: (yyyy/mm/dd)

2	0						
---	---	--	--	--	--	--	--

Public Health Passenger Locator Form: To protect your health, public health officers need you to complete this form whenever they suspect a communicable disease onboard a ferry. Your information will help public health officers to contact you if you were exposed to a communicable disease. It is important to fill out this form completely and accurately. Your information is intended to be held in accordance with applicable laws and used only for public health purposes. **Thank you for helping us to protect your health.*

One form should be completed by an adult member of each family member. Print in capital (UPPERCASE) letters. Leave blank boxes for spaces.

FERRY INFORMATION: 1. Ferry line name 2. Ferry ship name 3. Cabin/Seat Number 4. Date of disembarkation (yyyy/mm/dd)

PERSONAL INFORMATION:

5. Last (Family) Name 6. First (Given) Name 7. Middle Initial 8. Your sex MALE FEMALE OTHER 9. Age (years)

PHONE NUMBER(S) where you can be reached if needed. Include country code and city code.

10. Mobile 11. Business
12. Home 13. Other

14. Email address

PERMANENT ADDRESS*:

15. Country 16. State/Province
17. City 18. ZIP/Postal code
19. Number and street (Separate number and street with blank box) 20. Apartment number

*if in the previous 14 days you have stayed in a country (not transit) other than your permanent address, declare below the name of country/countries:

TEMPORARY ADDRESS: If in the next 14 days you will not be staying at the permanent address listed above, write the places where you will be staying.

21. Country 22. State/Province
23. City 24. ZIP/Postal code
25. Hotel name (if any) 26. Number and street (Separate number and street with blank box) 27. Apartment number

EMERGENCY CONTACT INFORMATION of someone who can reach you during the next 30 days

28. Last (Family) Name 29. First (Given) Name 30. Country
31. City 32. Email
33. Mobile phone 34. Other phone

35. TRAVEL COMPANIONS – FAMILY: Only include age if younger than 18 years

	Last (Family) Name	First (Given) Name	Cabin/Seat number	Age <18
(1)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(2)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(3)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
(4)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

PASSENGER LOCATOR FORM – FERRY SHIPS

Date of form completion: (yyyy/mm/dd)

2 0

36. TRAVEL COMPANIONS – NON-FAMILY/NON-SAME HOUSEHOLD: Also include name of group (if any)

Last (Family) Name

First (Given) Name

Group (*tour, team, business, other*)

(1)

(2)

Working group members

Barbara Mouchtouri¹, Martin Dirksen-Fischer², Mauro Dionisio³, Miguel Dávila-Cornejo⁴, Elina Kostara¹, Leonidas Kourentis^{1,5}, Lemonia Anagnostopoulou¹, Jan Heidrich⁶, Kristina Militzer⁶ and Christos Hadjichristodoulou¹

1. Laboratory of Hygiene and Epidemiology, Faculty of Medicine, University of Thessaly, Larissa, Greece
2. Institute for Hygiene and Environment of the Hamburg State Department for Health and Consumer Protection, Hamburg, Germany
3. Italian Ministry of Health, Rome, Italy
4. Ministry of Health, Social Services and Equality, Madrid, Spain
5. EU SHIPSAN Scientific Association
6. Institute for Occupational and Maritime Medicine, Hamburg, Germany

Input was provided by Interferry.

The European Community Shipowners' Associations (ECSA) and the European Transport Workers' Federation (ETF) were consulted.

For any questions or support related to the points of entry, please email info@healthygateways.eu

References

1. EUROPEAN COMMISSION DIRECTORATE-GENERAL FOR HEALTH AND FOOD SAFETY Public health ck, crisis management Health Security and Vaccination. EU health preparedness: A common list of COVID-19 rapid antigen tests, including those of which their test results are mutually recognised, and a common standardised set of data to be included in COVID-19 test result certificates. Agreed by the Health Security Committee on 17 February 2021. An update to Annex II was agreed by the HSC on 19 March 2021, 2021.
2. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL Preparedness for COVID-19 vaccination strategies and vaccine deployment In: European Commission, editor. COM/2020/680 final; 2021.
3. European Commission. COMMUNICATION FROM THE COMMISSION: COVID-19: Guidelines on the progressive restoration of transport services and connectivity. 13.05.2020.
https://ec.europa.eu/info/sites/info/files/communication_transportservices.pdf.
4. European Centre for Disease Prevention and Control. ECDC TECHNICAL REPORT - Guidelines for the use of non-pharmaceutical measures to delay and mitigate the impact of 2019-nCoV Stockholm, 2020.

Vaccination Report – 5 April 2022

1. Vaccine Implementation

- WHO's Emergency Use Listing(EUL) Vaccines (Last Updated 2 April 2022)
-

	Manufacturer	Name of Vaccine	NRA of Record	Vaccine type
1	Pfizer-BioNTech (US)	BNT162b2/COMIRNATY Tozinameran (INN)	EMA,USFDA	mRNA
2	AstraZeneca (UK)	AZD1222 Vaxzevria	EMA, MFDS KOREA, Japan MHLW/PMDA, Australia TGA, COFEPRIS(Mexico), ANMAT(Argentina)	Non ReplicatingViral vector
3	Serum Institute of India (India)	Covishield (ChAdOx1_nCoV-19)	DCGI	Non Replicating Viral Vector
4	Johnson & Johnson (US)	Ad26.CoV2.S	EMA, DCGI	Non ReplicatingViral vector
5	Moderna (US)	mRNA-1273	EMA, USFDA, MFDS	mRNA
6	Sinopharm Beijing (China)	SARS-CoV-2 Vaccine(Vero Cells)	NMPA	Inactivated virus (Vero Cells)
7	Sinovac (China)	COVID-19 Vaccine (Vero Cells)	NMPA	Inactivated virus (Vero Cell)
8	Bharat Biotech (India)	SARS-CoV-2 Vaccine, Inactivated (Vero Cell)/ COVAXIN	DCGI	Whole-Virion Inactivated (Vero Cell)
9	Serum Institute of India (India)	NVX-CoV2373/Covovax	DCGI	Protein Subunit
10	NOVAVAX (US)	NVX-CoV2373/Covovax	EMA	Protein Subunit

- **36** Vaccines Approved by at Least One Country

Vaccine Type	mRNA	Non Replicating Viral vector	Inactivated virus	Protein Subunit	DNA	Virus-like Particles (VLP)	Total
In Use	3	6	11	14	1	1	36

Source: <https://covid19.trackvaccines.org/vaccines/> (Last Updated 4 April 2022)

- Vaccination against COVID-19 has now started in **218** locations (Source: Our World in Data. Last Updated 4 April 2022)

Location	Doses given	Fully vaccinated (% of population)	At least 1 dose (% of population)
Worldwide	11.33 billion	4.58 billion (58.12%)	5.09 billion (64.59%)

About this data:

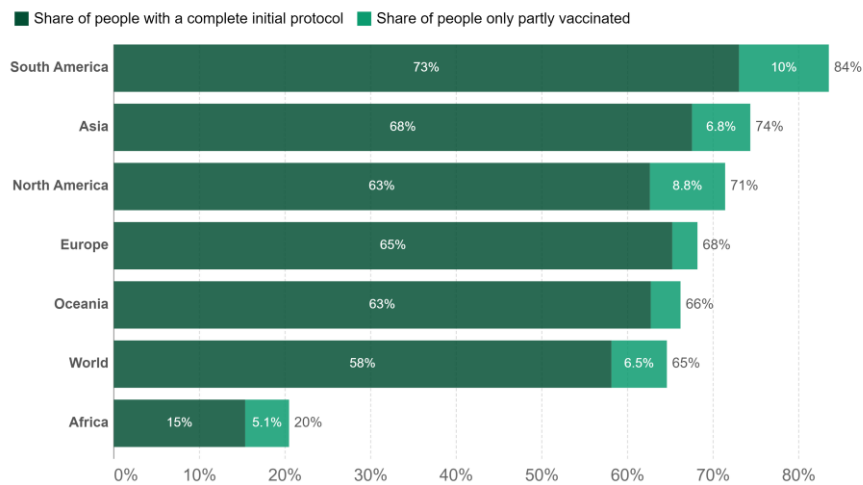
a: This data changes rapidly and might not reflect doses still being reported. It may differ from other sites & sources.

b: Where data for full vaccinations is available, it shows how many people have received at least 1 dose and how many people have been fully vaccinated (which may require more than 1 dose). Where data for full vaccinations isn't available, the data shows the total number of vaccine doses given to people. Since some vaccines require more than 1 dose, the number of fully vaccinated people is likely lower.

c: It only has full vaccination totals in some locations.

Share of people vaccinated against COVID-19, Apr 4, 2022

Our World in Data



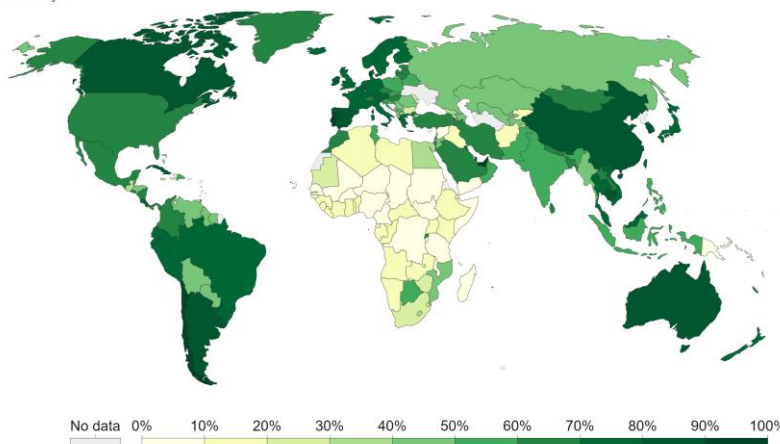
Source: Official data collated by Our World in Data
 Note: Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ignored to maximize comparability between countries.

CC BY

Share of people who completed the initial COVID-19 vaccination protocol, Apr 4, 2022

Our World in Data

Total number of people who received all doses prescribed by the initial vaccination protocol, divided by the total population of the country.

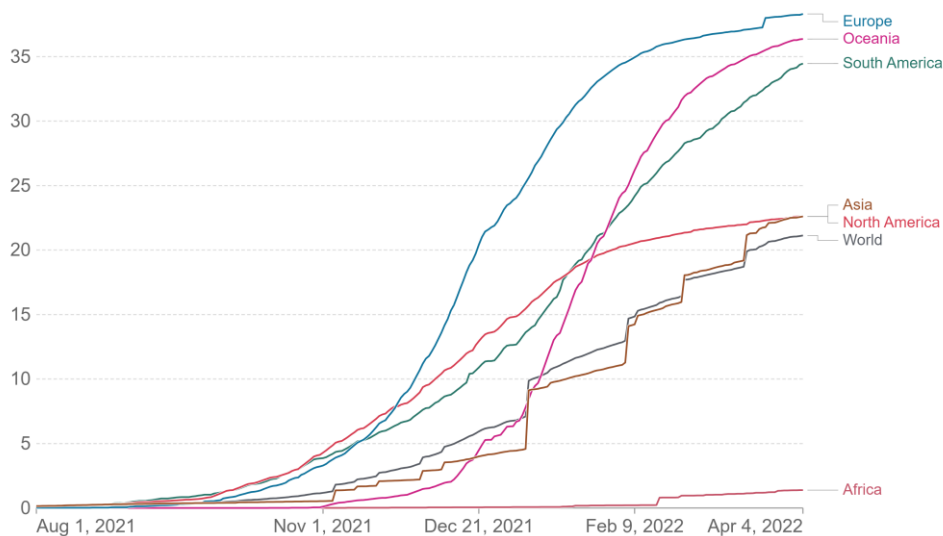


Source: Official data collated by Our World in Data – Last updated 5 April 2022, 11:20 (London time) OurWorldInData.org/coronavirus • CC BY
 Note: Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ignored to maximize comparability between countries.

COVID-19 vaccine boosters administered per 100 people

Our World in Data

Total number of vaccine booster doses administered, divided by the total population of the country. Booster doses are doses administered beyond those prescribed by the original vaccination protocol.

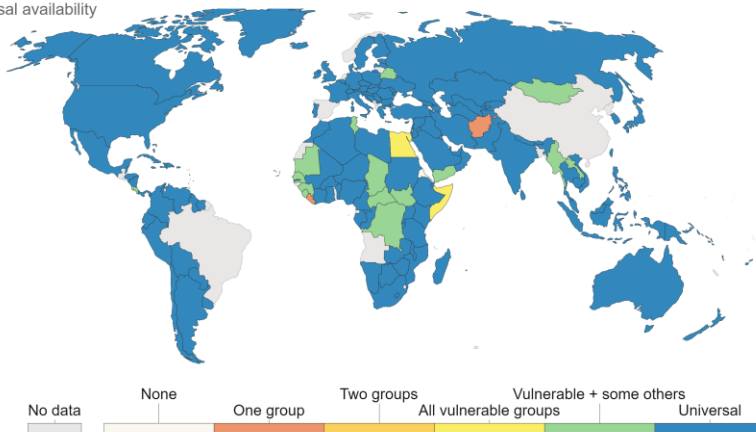


Source: Official data collated by Our World in Data – Last updated 5 April 2022, 11:20 (London time) OurWorldInData.org/coronavirus • CC BY

COVID-19 vaccination policy, Apr 5, 2022

Our World in Data

- This metric records policies for vaccine delivery for different groups.
- Availability for ONE of following: key workers/ clinically vulnerable groups / elderly groups
 - Availability for TWO of following: key workers/ clinically vulnerable groups / elderly groups
 - Availability for ALL of following: key workers/ clinically vulnerable groups / elderly groups
 - Availability for all three plus partial additional availability (select broad groups/ages)
 - Universal availability



Source: Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford – Last updated 5 April 2022, 12:50 (London time) OurWorldInData.org/coronavirus • CC BY

2. Vaccine effectiveness against symptomatic infection for Alpha, Delta and Omicron variants

Vaccine Status	Vaccine Effectiveness		
	Alpha	Delta	Omicron
1 Dose (BNT162b2 or ChAdOx1 nCoV-19)	48.7% (95%CI: 45.5-51.7%) ¹ 66%(BNT162b2) ⁴ 64% (ChAdOx1) ⁴	30.7% (95%CI: 25.2-35.7%) ¹ 56%(BNT162b2) ⁴ 67%(ChAdOx1) ⁴ 82% (95% CI: 73- 91%) ⁷	
1 Dose (mRNA-1273)	83% ⁴	72% ⁴	
1 Dose(Sinopharm or Sinovac)		13.8%,(95%CI: -60.2-54.8%) ³	
2 Doses (BNT162b2)	93.7% (95%CI: 91.6-95.3) ¹ 76% (95%CI: 69-81%) ² 89% ⁴	88% (95%CI: 85.3-90.1%) ¹ 42% (95% CI: 13-62%) ² 87% ⁴ 93%(95% CI: 88-97%/12-18Y) ⁵ 93% (95% CI: 88-97%) ⁷	50% (95% CI: 35%–62%) ⁸

2 Doses (ChAdOx1 nCoV-19)	74.5% (95%CI: 68.4-79.4%) ¹	67.0% (95%CI: 61.3-71.8%) ¹	
2 Doses (mRNA-1273)	86%, (95%CI: 81-90.6%) ²	76%, (95% CI: 58-87%) ²	30.4% (95% CI: 5.0%-49.0%) ⁹
2 Doses(Sinopharm or Sinovac)		59.0%, (95%CI: 16.0-81.6%) ³	
3 Doses (BNT162b2)		95.33% (SD 6.44) ⁶ 86.1% (95% CI, 67.3 to 94.1) ¹¹	67.2% (95% CI: 66.5- 67.8%) at 2 to 4 weeks ¹⁰ 49.4% (95% CI, 47.1 to 51.6) ¹¹
3 Doses(mRNA-1273)			62.5% (95% CI: 56.2-67.9%) ⁹ 47.3% (95% CI, 40.7 to 53.3) ¹¹
2 Doses (BNT162b2) + 1Dose(mRNA-1273)			73.9% (95% CI: 73.1- 74.6%) at 2 to 4 weeks ¹⁰
2 Doses(ChAdOx1 nCoV-19)+1Dose(BNT162b2)			62.4% (95% CI, 61.8- 63.0) at 2 to 4 weeks ¹⁰
2 Doses (ChAdOx1 nCoV-19)+ 1Dose (mRNA-1273)			70.1% (95% CI, 69.5 to 70.7) at 2 to 4 weeks ¹⁰

References:

- 1) [Effectiveness of Covid-19 Vaccines against the B.1.617.2 \(Delta\) Variant](#)
- 2) [Comparison of two highly-effective mRNA vaccines for COVID-19 during periods of Alpha and Delta variant prevalence](#)
- 3) [Efficacy of inactivated SARS-CoV-2 vaccines against the Delta variant infection in Guangzhou: A test-negative case-control real-world study](#)
- 4) [Effectiveness of COVID-19 vaccines against variants of concern in Ontario, Canada](#)
- 5) [Effectiveness of BNT162b2 Vaccine against Delta Variant in Adolescents](#)
- 6) [A RCT of a third dose CoronaVac or BNT162b2 vaccine in adults with two doses of CoronaVac](#)
- 7) [Effectiveness of BNT162b2 Vaccine against Delta Variant in Adolescents](#)
- 8) [Effectiveness of BNT162b2 Vaccine against Omicron Variant in South Africa](#)
- 9) [Effectiveness of mRNA-1273 against SARS-CoV-2 omicron and delta variants](#)
- 10) [Covid-19 Vaccine Effectiveness against the Omicron \(B.1.1.529\) Variant](#)
- 11) [Effect of mRNA Vaccine Boosters against SARS-CoV-2 Omicron Infection in Qatar](#)

3. Latest Relevant Articles

- [Omicron breakthrough infection drives cross-variant neutralization and memory B cell formation](#)
- [Effectiveness of mRNA Booster Vaccination Against Mild and Severe COVID-19 During Delta and Omicron Variant Circulation in Germany: An Analysis of National Surveillance Data](#)
- [Protection against SARS-CoV-2 after Covid-19 Vaccination and Previous Infection](#)
- [Effectiveness of the BNT162b2 Vaccine after Recovery from Covid-19](#)
- [BNT162b2 Protection against the Omicron Variant in Children and Adolescents](#)

4. Other Information

- CDC: Cardiac Complications After SARS-CoV-2 Infection and mRNA COVID-19 Vaccination — PCORnet, United States, January 2021–January 2022
- CDC: Effectiveness of Homologous and Heterologous COVID-19 Booster Doses Following 1 Ad.26.COV2.S (Janssen [Johnson & Johnson]) Vaccine Dose Against COVID-19–Associated Emergency Department and Urgent Care Encounters and Hospitalizations Among Adults — VISION Network, 10 States, December 2021–March 2022