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11th July 2022 **LA(22)14**

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

COVID-19 UPDATE and MONKEYPOX UPDATE AS OF 11th July 2022

Action Required: ***Globally, as of 8th July 2022, there have been 551,226,298 confirmed cases of COVID-19, including 6,345,595 deaths, reported to WHO. As of 3rd July 2022, a total of 12,037,259,035 vaccine doses have been administered.***

SITUATION IN NUMBERS BY WHO REGION

	Cases	Deaths
Global	**551,226,298**	**6,345,595**
Americas	**164,535,057**	**2,767,057**
Europe	**231,506,184**	**2,030,921**
South-East Asia	**58,742,623**	**790,481**
Eastern Mediterranean	**22,120,374**	**343,727**
Africa	**9,143,649**	**173,702**
Western Pacific	**65,177,647**	**239,694**

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

10	Turkey	Korea	India
11	Spain	India	Greece
12	Vietnam	Greece	Portugal

COVID-19(22)14-Annex 1 - 5 July 2022_COVID testing requirements for international travel

COVID-19(22)14-Annex 2 - Weekly_Epi_Update_99

COVID-19(22)14-Annex_3_-_ECDC-WHO-Risk-communication-community-engagement-monkeypox-outbreak-Europe

COVID-19(22)14-Annex 4 - ICAO Vaccination Report 5 July22

COVID-19(22)14-Annex 5 - monkeypox_euro_ecdc_draft_jointreport_2022-07-06

Ondrilla Fernandes
Employment Affairs Advisor

Reopen for International Travel Without COVID-19 Testing Required（139 Member States）

Updated on 5 July, 2022

Albania	Effective May 1, 2022, the Government of Albania repealed COVID-19-related entry requirements.(Last updated: 06/11/2022)	https://al.usembassy.gov/updates_covid19/
Algeria	Effective March 20, 2022, passengers can enter Algeria without restriction if they are fully vaccinated and if their last vaccine is not older than 9 months.Non-vaccinated passengers and those whose vaccinations are older than 9 months must have a negative PCR test within 72 hours of the time of arrival.	https://dz.usembassy.gov/covid-19-information/
Andorra	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 territory.	https://visitandorra.com/en/covid-19-in-andorra/faq-if-you-re-spending-a-few-days-in-andorra/
Antigua and Barbuda	Arriving passengers are not required to present verifiable documentation of full vaccination to be permitted entry into Antigua and Barbuda.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.((Last updated:04/16/2022)	https://visitantiguabarbuda.com/travel-advisory/
Argentina	Travelers are not required to provide proof of a negative COVID-19 test result before traveling to Argentina.People who have an incomplete vaccination schedule are recommended to have a diagnostic test within 24 hours of their entry into the country.	https://www.argentina.gob.ar/interior/migraciones/ddjj-migraciones
Armenia	According to the amendments of the Government Decree: № 1514-N of September 11, 2020, which entered into force on May 1, 2022: The passengers are NO LONGER REQUIRED to present a COVID-19 PCR test or a Certificate of complete vaccination against COVID-19 to enter the Republic of Armenia.	https://www.gov.am/en/covid-travel-restrictions/
Australia	Changes to the requirements for travel into and out of Australia came into effect on 18 April 2022. The Australian Government no longer requires people travelling to Australia to have a COVID-19 test before travel.You do not need to provide proof of COVID-19 vaccination to travel to and from Australia.	https://www.health.gov.au/health-alerts/covid-19/international-travel/inbound
Austria	Travel to Austria is possible for touristic purposes.Since 16 May, proof of vaccination/recovery or a test are no longer needed.(Last update: 2022/05/17)	https://www.austria.info/en/service-and-facts/coronavirus-information/entry-regulations
Azerbaijan	The Cabinet of Ministers announced that, beginning April 15, 2022, the need for a negative PCR test for entry to Azerbaijan is eliminated.	https://az.usembassy.gov/covid-19-information-for-azerbaijan/
Bahamas	Effective Sunday 19th June 2022 at 12:01 am The Bahamas Travel Health Visa (BTHV) will no longer be required to travel to The Bahamas. All unvaccinated travelers ages 2 and older will be required to obtain a negative COVID-19 test - either a negative RT-PCR or a Rapid Antigen Test to be presented at check-in. Vaccinated travelers will only be required to present proof of vaccination at check-in.	https://travel.gov.bs/
Bahrain	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.	https://healthalert.gov.bh/en/article/entry-procedures-through-kingdom-of-bahrain

Bangladesh	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 (Last update: 2022/06/02)	http://caab.gov.bd/circul/AT-Circular-FSR-03-2022%20(02June22).pdf
Barbados	Effective Wednesday, May 25, 2022, fully-vaccinated travellers to Barbados will no longer have to take a COVID-19 test to enter the country.	https://www.visitbarbados.org/covid-19-travel-guidelines-2022
Belarus	There are no restrictions on entry into Belarus for citizens of Belarus, foreign citizens and stateless persons.	https://gpk.gov.by/covid-19/
Belgium	From 23 May 2022, measures will only apply to travellers coming from a very high risk country.	https://www.info-coronavirus.be/en/travels/
Belize	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.If unable to show proof or if unvaccinated, the traveller must present proof of a negative PCR result taken within 72 hours of arrival or a negative Antigen Rapid test taken within 48 hours of arrival. A test can be administered by the Ministry responsible for health at the airport. Every child under the age of 5 years shall not be subjected to testing for SARSCoV2 upon entry into Belize through airport, land or sea port.	https://belizetourismboard.org/news-and-gallery/belize-covid-19-travel-updates/#1644266913182-1e31ba74-2de7
Benin	There is no negative COVID-19 test (PCR and/or serology) required for entry Benin.(Last updated: 06/16/2022)	https://bj.usembassy.gov/info-covid19/
Bolivia	Travelers to Bolivia must comply with the following requirements.(Last Updated 6/13/22) Present a COVID-19 vaccination certificate, or Present a negative COVID-19 RT-PCR test (for persons older than 5 years) taken no more than 72 hours prior to embarkation, or Present a negative COVID-19 nasal antigen test (for persons older than 5 years) no more than 48 hours prior to embarkation.	https://bo.usembassy.gov/covid-19-information/
Bosnia and Herzegovina	As of May 26, 2022, BiH authorities have removed entry restrictions related to COVID-19.	https://granpol.gov.ba/Content/Read/74?title=COVID-19
Bostswana	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. (Last updated: 06/22/2022)	https://bw.usembassy.gov/covid-19-information/
Brazil	Fully vaccinated travelers are not required to present proof of negative COVID-19 test results before traveling to Brazil.	https://www.in.gov.br/en/web/dou/-/portaria-interministerial-n-670-de-1-de-abril-de-2022-390351794
Brunei	In view of the opening of borders via air travel on 6th May 2022, the COVID-19 Steering Committee would like to inform the public on the easing of cross-border travel restrictions and the updates of control measures which will also commence on Wednesday, 15th June 2022, as follows: 1)Pre-departure swab test (either (RT-PCR or ART test) for inbound travellers is no longer required, regardless of vaccination status. 2)Fully vaccinated travellers are no longer required to undergo ART testing and self-isolation upon arrival in the country. 3)Travellers who have not completed the COVID-19 vaccination are required to undergo ART testing upon arrival, three (3) days self-isolation and will only be allowed to end their self-isolation if tested negative RT-PCR on day three.(Last updated: 06/09/2022)	https://www.bruneitourism.com/covid19-travellers-advisory/

Bulgaria	As of 1 May 2022, the restrictions on entry into the territory of the Republic of Bulgaria are lifted.	https://coronavirus.bg/bg/az-sum/zavrashtam-se-bulgaria
Burkina Faso	Fully vaccinated travelers are not required to have a negative COVID-19 test result before traveling to Burkina Faso.(Last updated:06/03/2022)	https://www.sante.gov.bf/covid19
Cabo Verde	If you're fully vaccinated, you can enter Cape Verde without needing to test or quarantine but you will need to present proof of your vaccination status when you check-in for your flight to Cape Verde. If you're not fully vaccinated, you'll need to show proof of a negative PCR test (taken no more than 72 hours before you travel) or an antigen test (taken no more than 48 hours before you travel) when you check-in for your flight to Cape Verde. If you're not fully vaccinated but have tested positive for COVID-19 in the last year, you can enter Cape Verde with a COVID-19 recovery certificate showing you recovered from COVID-19 no less than 11 days and no more than 180 days before you travel.	https://www.gov.uk/foreign-travel-advice/cape-verde/entry-requirements
Cambodia	As of March 17 2022, the Royal Government of Cambodia has officially decided as follow: 1)Lift the requirement that travelers from abroad shall present a negative PCR Test Result of COVID-19 within 72 hours prior arriving in Cambodia. 2)Lift the requirement for Antigen Rapid Test upon arrival in Cambodia. 3) Resume the issuance of Visa on arrival for international travelers by air, land and sea.	https://www.embassyofcambodiadc.org/embassy-updates/pr-no-098-easing-of-entry-requirements-march-17-2022
Canada	Starting April 1, 2022, pre-entry tests are no longer required for fully vaccinated travellers entering Canada by land, air or water. 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. Children who are less than 5 years old are not required to test, regardless of their vaccination status.	https://www.embassyofcambodiadc.org/embassy-updates/pr-no-098-easing-of-entry-requirements-march-17-2022
Chad	If you're fully vaccinated, you can enter Chad without needing to test or quarantine.You must present proof that you have been fully vaccinated to enter Chad.If you're not fully vaccinated, you'll need to show proof of a negative PCR test (taken no more than 96 hours before entry) in order to enter Chad.	https://www.gov.uk/foreign-travel-advice/chad/entry-requirements
Colombia	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.	https://colombia.travel/en/covid-19-information
Cook Islands	From 1 May, pre-departure testing has been removed for all international arrivals	https://cookislands.travel/entry
Costa Rica	Starting April 1, the temporary migration measures established in the framework of the national health emergency due to COVID-19 are repealed.	https://www.visitcostarica.com/en/costa-rica/planning-your-trip/entry-requirements
Côte d'Ivoire	With effect from 7 March 2022, the Ministry of Health, Public Hygiene and Universal Health Coverage has announced that you no longer need to show a negative PCR test as long as you can prove that you are fully vaccinated. If you are not fully vaccinated, you will still need to show evidence of a negative COVID-19 test result, dated a maximum of 72 hours prior to arrival, before being allowed to board your flight	https://www.gov.uk/foreign-travel-advice/cote-d-ivoire/entry-requirements
Croatia	Croatia removed all border crossing restrictions, notably the requirement for non-EU citizens to present a COVID-19 certificate or proof of vaccination for entry to Croatia. There are no longer any COVID-related restrictions for entry to Croatia.(Last updated: 06/24/2022)	https://hr.usembassy.gov/covid-19-information/

Cuba	In accordance with the international and national epidemiological situation of COVID-19 and the levels of immunization achieved, it has been decided to make the following modifications to the entry requirements to the country as part of the International Health Control. 1) Eliminate as a requirement for entry to the country the presentation of a test for COVID-19 (Antigen Test or PCR-RT) carried out in the country of origin, as well as the certificate of vaccination against COVID-19.2) Maintain the sampling for SARS CoV-2 study (free) randomly to travelers at the points of entry into the country, taking into account the number of flights, the entry of boats and the epidemiological risk represented by the country of origin.	https://www.mintur.gob.cu/protocolos/
Cyprus	Effective 1 June 2022, all travellers arriving in the Republic of Cyprus, irrespective of their country of origin, will not be required to present a valid certificate of vaccination or recovery or a negative result from a PCR or antigen rapid test.	https://www.pio.gov.cy/coronavirus/uploads/27052022_airportsportsactionplanabolished_EN.pdf
Czechia	As of 9th April 2022, the protective measures regarding the conditions of entry into the Czech Republic in relation to the epidemic of covid-19 have been suspended. Entry into the Czech Republic is no longer subject to any special epidemiological conditions to prevent the spread of the disease. The entry-ban for foreigners from third-countries and the obligation to prove infection-free status have been lifted.	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	There are no covid-19 related restrictions on entry into Denmark. On this page, you will find information on testing and everyday precautions.(Updated: 4 July 2022)	https://en.coronasmitte.dk/travel-rules/covidtravelrules
Dominica	As of April 4th, travellers will no longer be required to fill and submit the pre-travel online form. The requirement for pre-arrival testing, and testing on arrival for vaccinated travellers at all ports of entry, including seafarers and yachters, has been removed.	https://discoverdominica.com/en/travel-advisory-for-dominica
Dominican Republic	As of April 23, 2022, all passengers and crew members do not need to present a COVID-19 Vaccination Card, PCR, or antigen test to enter the Dominican Republic or to enter tourist centers, any establishments or to receive services such as excursions.	https://www.godominicanrepublic.com/newsroom/coronavirus/
Egypt	All passengers traveling to Egypt (including Egyptians) must be in possession of a vaccination certificate or a negative PCR, Antigen Rapid Test, or ID NOW test result for COVID-19 with Quick Response (QR) code, taken at a maximum of 72 hours before their flight departure time.(Last updated: 06/12/ 2022)	https://eg.usembassy.gov/u-s-citizen-services/covid-19-information/
El Salvador	The Government of El Salvador has removed COVID-19 testing/vaccination requirements for entry. Visitors are advised however to bring proof of vaccination with them, as this may be requested for entry into certain events or locations in El Salvador.	https://www.dfa.ie/travel/travel-advice/a-z-list-of-countries/el-salvador/
Estonia	COVID-19 travel restrictions have been lifted in Estonia. Travellers are not required to provide proof of vaccination, recovery from COVID-19 or a negative test result.	https://www.visitestonia.com/en/covid-19-and-travelling-to-estonia
Eswatini	As at March 2022, Eswatini is open to all visitors based on the following requirements: Travellers entering and exiting the Kingdom of Eswatini must produce EITHER of the following, upon arrival at the Points of Entry: A valid COVID-19 vaccination certificate (hard or electronic) and must be fully vaccinated. OR A valid negative COVID-19 PCR test result (hard or electronic) that is not older than 72 hours, for the unvaccinated.	https://www.thekingdomofeswatini.com/travel-advice/

Ethiopia	Passengers age 12 and over who have been fully vaccinated against COVID-19 more than two weeks before the date of entry are required to show evidence of this. Accepted vaccinations are a single dose of Johnson and Johnson, or two doses for Astra-Zeneca, Sinopharm, Sinovac, Moderna and Pfizer.Travellers under the age of 12 do not need to show proof of vaccination. If you're not fully vaccinated, you'll need to show proof of a negative COVID-19 RT PCR test result issued within the 72 hours (3 days) before departure, or a rapid lateral flow test up to 24 hours before arriving in Ethiopia.	https://www.gov.uk/foreign-travel-advice/ethiopia/entry-requirements
Finland	Restrictions on entry at Finland's external borders imposed due to the COVID-19 pandemic will end on 30 June, 2022. This means that EU travellers, Schengen travellers and third-country travellers arriving in Finland will no longer be required to hold vaccination or COVID-19 test certificates, and COVID-19 tests will not be carried out at border crossing points. Border checks will return to pre-pandemic procedures.	https://www.visitfinland.com/en/practical-tips/covid-19/
France	Covid-19 restrictions at the French border were eased on 12 February 2022 for fully vaccinated travellers. The entry conditions to French territory are defined by the classification of departure countries (countries and territories on 'green' and 'orange' lists) indicated below. Children under 12 years of age are exempt from testing.(Updated on June 13th, 2022)	https://www.diplomatie.gouv.fr/en/coming-to-france/coming-to-france-your-covid-19-questions-answered/article/coming-to-france-your-covid-19-questions-answered?var_mode=calcul
Gabon	Travelers are not required to take a negative COVID-19 test (PCR and/or serology) result.(Last updated: 06/13/2022)	https://ga.usembassy.gov/u-s-citizen-services/coronavirus-update/
Gambia	As of December 11, 2021, the Ministry of Health updated entry requirements into The Gambia: Fully vaccinated travelers into The Gambia do not need a PCR test to enter. However, if such individuals have signs or symptoms similar to those of COVID-19, they will be required to undergo Rapid Diagnostic Test for COVID-19 at the airport. Non-Vaccinated or Partially Vaccinated individuals will need a negative PCR test report valid within 72 hours for entry into the country. Individuals who test positive for COVID-19 upon arrival, will be required to undergo mandatory quarantine at the traveler's own expense.(Last updated: 06/14/2022)	https://gm.usembassy.gov/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://georgia.travel/en_US/article/covid-travel-alert
Germany	Lifting of COVID-19-related restrictions for entry into Germany with effect as of Saturday, 11 June 2022, 12pm/0.00h CET	https://www.bmi.bund.de/SharedDocs/faqs/EN/topics/civil-protection/coronavirus/coronavirus-faqs.html
Ghana	Vaccinated travelers do not need to show a negative COVID-19 test.(Last updated: 06/13/2022)	https://gh.usembassy.gov/ghana-covid-19-information/
Greece	From 15 March 2022 onwards, travellers visiting Greece are no longer required to fill out the Passenger Locator Form (PLF). Additionally, as of Sunday 01.05.2022 and for as long as the epidemiological data allow so, all travellers arriving in Greece, regardless of their country of origin, are no longer required to display a valid certificate of vaccination or recovery from COVID-19, or evidence of a negative test result from SARS-CoV-2 infection (PCR or Rapid Antigen test).	https://travel.gov.gr/#/
Grenada	State of emergency revoked and all travel protocols lifted on 04th April 2022. (Last updated: 6/08/2022)	https://bb.usembassy.gov/covid-information-grenada/

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/
Guinea	The Ministry of Health announced on 11 March 2022 that fully vaccinated travellers entering or leaving Guinea are not required to show proof of a negative certificate from a polymerase chain reaction (PCR) test.	https://www.gov.uk/foreign-travel-advice/guinea/entry-requirements#entry-rules-in-response-to-coronavirus-covid-19
Haiti	Haiti is putting new COVID requirements in place as of April 25, 2022. Fully vaccinated visitors will no longer need to present a negative COVID-19 antigen or PCR test taken within 72 hours of travel. But the testing requirement will stay in place for unvaccinated visitors.	https://www.mspp.gouv.ht/
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. (Last updated: 6/13/2022)	https://hn.usembassy.gov/covid-19-information/
Hungary	On 7 March 2022, Government Decree No. 77 of 2022 (III. 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. In accordance with this, it is possible to enter the territory of Hungary by public road, railway, water and air traffic – regardless of citizenship and protection against the coronavirus –, but other general conditions of entry (e.g. a valid travel document) must be provided.	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	All travellers should Upload a negative COVID-19 RT-PCR report* (The test should have been conducted within 72 hrs prior to undertaking the journey) **or** Certificate of completing full primary vaccination schedule of COVID-19 vaccination	GuidelinesforInternationalarrivalsupdatedon10thFebruary2022.pdf (mohfw.gov.in)
Iraq	Effective April 1, 2022, outbound and inbound travelers above the age of 12 to all federal Iraq and Iraqi Kurdistan Region airports must present a certificate of vaccination showing at least two doses of one of the COVID-19 vaccines or one dose of Johnson & Johnson's Janssen COVID-19 vaccine. If a traveler is unvaccinated, then they are required to provide medical reports on why they cannot get vaccinated and show a negative COVID-19 PCR certificate valid within 72 hours of travel.(Last updated: 05/15/2022)	https://iq.usembassy.gov/covid-19-information/
Ireland	From Sunday 6 March 2022, travellers to Ireland are not required to show proof of vaccination, proof of recovery or a negative PCR test result upon arrival. There are no post-arrival testing or quarantine requirements for travellers to Ireland.	https://www.gov.ie/en/publication/77952-government-advice-on-international-travel/#passengers-arriving-into-ireland-from-outside-eueea-eu-iceland-lichtenstein-and-norway

Isreal	As of Friday, May 20, at midnight (on the night between Friday and Saturday, May 21), the following guidance will take effect: It will not be required to present a negative result on a COVID test before boarding a flight to Israel or a cruise to Israel or before arriving at an Israeli land border crossing.	https://corona.health.gov.il/en/abroad/arriving-foreign-nationals/
Italy	COVID-19 travel restrictions have been lifted in Italy. Providing proof of vaccination, recovery from COVID-19 or negative test results is no longer required.	https://www.esteri.it/en/ministero/normativaonline/focus-cittadini-italiani-in-rientro dall-estero-e-cittadini-stranieri-in-italia/
Jamaica	The requirement for travellers to present a negative COVID test prior to travel has ended on 15 April. All travellers arriving in Jamaica may still be tested for COVID-19 if assessed as high-risk as a result of exhibiting symptoms, exposure to people who have tested positive, belonging to a high-risk group or other risk factors. Travellers may be screened for symptoms at the airport.	https://www.gov.uk/foreign-travel-advice/jamaica/entry-requirements
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
Kazakhstan	Travelers are not required to have a negative COVID-19 test result before traveling to Kazakhstan.(Last updated: 06/13/2022)	https://kz.usembassy.gov/covid-19-information/
Kenya	FROM 11th March 2022, 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	Negative COVID-19 test (PCR) is no longer required for entry.(Last updated: 06/12/2022)	https://kw.usembassy.gov/covid-19-information/
Kyrgyzstan	Travelers no longer need to provide a negative PCR test result or a certificate of vaccination to be permitted entry into the Kyrgyz Republic(Last updated: 6/14/2022)	https://kg.usembassy.gov/covid-19-information/
Laos	Travelers must have a certificate of vaccination to prove that they are fully vaccinated. Fully vaccinated travelers are not required to have a negative COVID-19 test result before arrival in Laos.(Last updated: 06/13/2022)	https://la.usembassy.gov/covid-19-information/
Latvia	From April 1, when entering Latvia, you will not need a COVID-19 certificate or test.	https://www.spkc.gov.lv/lv/valstu-saslimstibas-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	FROM 1st MAY 2022: Travelers arriving in Lithuania from any country of the world will no longer be subject to any COVID-19 management requirements: 1)you will no longer need to take the COVID-19 test before the trip, even if you are not vaccinated or recovered from COVID-19; 2)you will not need to fill in the questionnaire; 3)foreigners are not prohibited from entering.	https://nvsc.lrv.lt/en/information-on-covid-19/for-arrivals-from-abroad

Luxembourg	From 22 April 2022, the additional health measures for travel by air to the Grand Duchy are repealed. Thus, persons (of all nationalities) aged 12 years and 2 months or over, authorised to enter Luxembourg, are no longer required to present, upon boarding, a vaccination certificate, a certificate of recovery or the negative result of a nucleic acid amplification test (NAAT) for the detection of SARS-CoV-2 viral RNA carried out less than 48 hours before the flight, or of a SARS-CoV-2 rapid antigen test carried out less than 24 hours before the flight.	https://covid19.public.lu/en/travellers/visiting-luxembourg.html
Malawi	As from 1 June 2022, all travellers that are fully vaccinated will no longer be required to produce negative PCR tests. All travellers that are not fully vaccinated or don't have a valid electronically verifiable COVID-19 full vaccination certificate will be required to produce a negative PCR based COVID-19 certificate that is not older than 72 hours at the time of arrival in the country.	https://www.malawitourism.com/travel-advice/
Malaysia	Starting 1 May 2022, fully-vaccinated inbound travellers are no longer required to undergo pre-departure and on-arrival COVID-19 tests, including children aged 12 and below as well as for those who have been infected with COVID-19 within six to 60 days before departure to Malaysia.	https://www.malaysia.travel/travel-alert
Maldives	Effective from March 13th, 2022, PCR is not mandatory to enter the Maldives.	https://immigration.gov.mv/faq-for-visiting-the-maldives/
Mali	To enter Mali you will need proof of a "complete COVID vaccination" (i.e. usually at least two doses). If you do not have proof of a complete vaccination, you need to present a negative COVID test (PCR) certificate less than 72 hours old.	https://www.gov.uk/foreign-travel-advice/mali/entry-requirements
Malta	As from 6th June 2022, persons aged 12 years and over are permitted to travel to Malta without undergoing quarantine as long as they provide either of the 3 documents mentioned below:1)Proof of full vaccination. 2) Proof of recovery from COVID-19. 3) Negative result to a pre-departure test.	https://deputyprimeminister.gov.mt/en/health-promotion/covid-19/Pages/travel.aspx
Mexico	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.	https://embamex.sre.gob.mx/eua/index.php/en/2016-04-09-20-40-51/tourism/1760-mexico-s-covid-19-monitoring-system
Monaco	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: 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	COVID-19 related restrictions for entry have been lifted. Negative COVID-19 PCR tests before and after arrival are no longer required.	https://www.gov.uk/foreign-travel-advice/mongolia/entry-requirements#entry-rules-in-response-to-coronavirus-covid-19
Montenegro	As of March 11, 2022 no proof of vaccination, COVID-19 passports/certificates **or** COVID-19 tests are required to enter Montenegro. (Last updated: 06/13/22)	https://me.usembassy.gov/covid-19-information/
Morocco	Travelers wishing to travel to Morocco, by any means, must present a health form, to be downloaded online before boarding, duly completed. It is also distributed on board the airport or ship. They must also present a valid vaccination passport or a negative PCR test result less than 72 hours old. Children under the age of 12 are exempt from all requirements.	https://www.onda.ma/Je-suis-Passager/Guide-du-voyageur/News-a%C3%A9roportuaires-COVID19

Mozambique	PCR test is no longer needed to enter the country if a person presents a valid certificate showing proof of full vaccination against COVID-19. In addition, children 11 and younger do not require a PCR test or proof of vaccination to enter the country.(Last updated: 06/13/2022)	https://mz.usembassy.gov/covid-19-information/
Namibia	Fully vaccinated travelers are no longer required to produce a negative PCR test result upon arrival in Namibia but are instead required to present an authentic, valid vaccination card at the port of entry. Travelers who are not fully vaccinated must produce a negative COVID-19 Polymerase Chain Reaction (PCR) test result no older than 72 hours from their arrival in Namibia calculated from the date/time the sample was taken. The certificate must be issued by a certified laboratory to issue SARS-Co V-2 test results in the country of issuance. (Last updated: 07/05/2022)	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	There are no coronavirus-related restrictions for entering the Netherlands for travellers who live in the EU/Schengen area or in a country participating in the EU travel rules scheme. The EU entry ban applies to other travellers who live outside the EU/Schengen area, but there are exemptions to the entry ban. For example, if you come from a safe country, or you have a proof of vaccination or proof of recovery that meets the requirements.	https://www.government.nl/topics/coronavirus-covid-19/visiting-the-netherlands-from-abroad/checklist-entry
Niger	Travelers on arrival (disembarkation): For vaccinated travellers whose last dose is at least 4 weeks old, the COVID-19 PCR Test is no longer required; For travellers who have not been vaccinated or who have not provided proof of vaccination whose last dose is at least 4 weeks old, the COVID-19 PCR Test is required.	https://www.gouv.ne/index.php/les-communiques-du-gouvernement/296-au-conseil-des-ministres-le-gouvernement-reitere-son-engagement-a-remplacer-les-salles-de-classe-en-paillote-par-des-salles-de-classe-en-materiaux-definitifs
Nigeria	Effective from 4th April 2022, as detailed below: 1)Fully vaccinated passengers arriving in Nigeria will not be required to carry out a pre-boarding COVID-19 PCR test nor carry out a Post-arrival PCR test or Rapid Antigen Test upon arrival in Nigeria. 2)Fully vaccinated passengers must show a verifiable full vaccination certificate otherwise, they will be treated as unvaccinated/partially vaccinated under this protocol. 3)Unvaccinated and partially vaccinated passengers are required to take a COVID-19 PCR test 48hrs before departure and conduct days	https://covid19.ncdc.gov.ng/advisory/
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	Vaccinated individuals do not require a pre-boarding negative PCR test. Unvaccinated individuals over age 12 must present a negative PCR test taken within 72 hours.	https://pk.usembassy.gov/covid-19-information/
Panama	Last update on April 6, 2022.Travelers will not have to present a negative COVID-19 test for entry as long as they can provide physical or digital proof of at least 2 (two) doses or complete vaccination scheme endorsed by the WHO, EMA and FDA, equal to or greater than 14 days after the last dose. Non-vaccinated or partially vaccinated travelers will be required to present a negative COVID-19 PCR or antigen test taken no more than 72 hours prior to their arrival time in Panama.	https://www.tourismpanama.com/plan-your-vacation/advisories/
Paraguay	Fully vaccinated travelers are not required to present a negative COVID-19 test result before traveling to Paraguay, in force as of April 19, 2022.	https://www.migraciones.gov.py/index.php/tramites/ingreso-y-salida-del-pais/exigencias-sanitarias-vigentes-por-covid-19-para-el-ingreso-al-paraguay
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/normaslegales/decreto-supremo-que-modifica-el-decreto-supremo-n-184-2020-decreto-supremo-no-151-2021-pcm-1988484-1/
Philippines	Fully vaccinated travelers over the age of 18 who have received the primary series of COVID-19 vaccine and at least 1 COVID-19 booster shot are not required to have a negative pre-departure COVID-19 test result before traveling to the Philippines. Travelers aged 12 to 17 who have received their primary COVID-19 vaccines are not required to have a negative pre-departure COVID-19 test result before traveling to the Philippines.(Last updated: 06/02/ 2022)	https://www.philippineairlines.com/en/ph/home/covid-19/arrivingintheph
Poland	From 28 March 2022, on the basis of the provisions of the Regulation of the Council of Ministers of 25 March 2022 on the establishment of certain restrictions, orders and prohibitions in connection with the occurrence of the state of epidemic (Journal of Laws item 673), all restrictions on travel to the Republic of Poland are abolished, which means that there is no longer an obligation to: - to present vaccination certificates when crossing the border, - performing tests for SARS-CoV-2, - the so-called arrival quarantine.	https://www.gov.pl/web/koronawirus/informacje-dla-podrozujacych
Portugal	As of July 1, 2022, passengers entering national territory (including Azores and Madeira) are no longer required to present proof of carrying out a test to screen for SARS-CoV-2 infection with a negative result or to present a COVID-EU digital certificate or vaccination or recovery certificate issued by third countries, accepted or recognized in Portugal.	https://www.visitportugal.com/en/node/446781
Romania	Visitors and residents arriving to Romania from any country in the world do not need to present proof of vaccination (complete scheme) or a negative RT-PCT test.(Last update: July 4, 2022)	https://romaniatourism.com/travel-advisory.html
Saint Lucia	Updated entry requirements effective 2 April 2022, There is no requirement for pre-travel test or quarantine for fully vaccinated travellers. Fully vaccinated travellers must provide a valid vaccination record as requested on check in, for boarding and on entry to Saint Lucia.	https://www.stlucia.org/en/covid-19/

Saint Vincent and the Grenadines	Fully vaccinated travelers to St. Vincent and the Grenadines DO NOT NEED TO ARRIVE WITH A SARS-CoV-2 (COVID-19) TEST(Last updated:06/15/2022)	http://health.gov.vc/health/index.php/covid-19-protocols-documents
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
Sao Tome and Principe	The requirements for entry into Sao Tome and Principe (STP) require passengers - of all nationalities - from the age of 12, who are not with the full digital vaccination certificate, to submit a negative antigen test, performed up to 48 hours before the date of travel. Those with a valid digital certificate are exempt from the presentation of the antigen test.(Last updated: 05/06/2022)	https://portaldascomunidades.mne.gov.pt/pt/vai-viajar/conselhos-aos-viajantes/africa/sao-tome-e-principe
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.(Last updated: 04/12/2022)	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 72 hours before departure. The test result must be in English or French.(Last updated: 06/03/2022)	https://sn.usembassy.gov/covid-19-information/
Serbia	There are no restrictions on entering the Republic of Serbia.(Last updated 05/03/2022)	https://www.mfa.gov.rs/en/citizens/travel-serbia/covid-19-entry-requirements
Seychelles	• All fully immunised visitors are exempted from pre-travel PCR test requirement upon presentation of their vaccination certificate. • Unvaccinated or partially vaccinated visitors will be required to present a negative PCR test certificate from an accredited laboratory departure to Seychelles. Samples for this test must have been taken within 72hours before departure for PCR test and 24 hours for rapid antigen test.(Last updated:03/15/ 2022)	http://tourism.gov.sc/wp-content/uploads/2022/03/Seychelles-Visitor-Travel-Advisory-15-March-2022-1.pdf
Sierra Leone	Vaccinated passengers do not require a pre-departure or on arrival PCR test. Unvaccinated or partially vaccinated passengers do not require a pre-departure PCR test. They do however require an on arrival PCR test that should be booked and paid for in advance of departure through the Government of Sierra Leone travel portal.	https://www.gov.uk/foreign-travel-advice/sierra-leone/entry-requirements#entry-rules-in-response-to-coronavirus-covid-19
Singapore	Fully vaccinated travelers are not required to provide proof of a negative COVID-19 test result to enter Singapore. If you are Non-Fully Vaccinated Travellers and born before 2020 (i.e. above 2 years old) , take any of the following COVID-19 tests within 2 days before departure: COVID-19 Polymerase Chain Reaction test (PCR test) ; Antigen Rapid Test (ART)	https://safetravel.ica.gov.sg/arriving/general-travel/fully-vaccinated
Slovakia	From 6 April 2022, the Decree of the Public Health Authority of the Slovak Republic No. 28/2022 regulating the regime at the borders is repealed. Thus, the obligation to register on eHranica as well as the mandatory quarantine for unvaccinated persons immediately after the arrival from abroad are abolished.	https://www.mzv.sk/web/en/covid-19

Slovenia	As of 14 May 2022, the RVT rule is no longer required.Free testing with a rapid antigen test and a rapid antigen test for self-testing is abolished. The government budget will only pay for testing with a rapid antigen test for activities where this is still required.	https://www.gov.si/en/topics/coronavirus-disease-covid-19/border-crossing/
South Africa	From 4 May 2022, All international travellers arriving at South African Ports of Entry must: (a) be vaccinated against COVID-19 and produce a valid vaccination certificate; or (b) produce a valid certificate of a negative PCR COVID-19 test, recognised by the World Health Organization, which was obtained not more than 72 hours before the date of departure; or (c) produce a valid certificate of a negative antigen COVID-19 test performed by a medical practitioner, registered public health authority or accredited/approved laboratory which was obtained not more than 48 hours before the date of departure; or (d) produce a valid certificate of a positive PCR COVID-19 test, recognised by the World Health Organization, for a test date less than 90 days prior to the date of arrival and more than 10 days prior to the date of arrival, together with a signed letter from a health care provider, registered in the country of origin, stating that the person has fully recovered from COVID-19, is not experiencing any new symptoms and is fit to travel.	https://www.gov.za/covid-19/individuals-and-households/travel-coronavirus-covid-19
Spain	Passengers arriving in Spain by AIR (except children under the age of 12 and passengers in international transit) from countries that DO NOT belong to the European Union or are NOT considered Schengen associated countries, must have one of these documents: 1)DIGITAL COVID CERTIFICATE OR EU EQUIVALENT; 2)QR SPTH.	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. Not-Vaccinated & Not-fully vaccinated Travellers are released from On-arrival PCR test & Quarantine period.	https://srilanka.travel/helloagain/
Sudan	The Sudanese Civil Aviation Authority requires all passengers entering Sudan to possess: 1) A COVID-19 vaccination certificate showing that the passenger is fully vaccinated at least 14 days and not more than 8 months before arrival; or 2) A negative polymerise chain reaction (PCR) test certificate taken not more than 72 hours before arrival; or 3) A negative polymerise chain reaction (PCR) test certificate taken not more than 96 hours before arrival if arriving from Antigua and Barbuda, Argentina, Austria, Bahamas, Barbados, Belgium, Belize, Bolivia, Brazil, Bulgaria, Canada, Chile, China (People's Rep.), Colombia, Costa Rica, Croatia, Cuba, Cyprus, Czechia, Denmark, Dominica, Dominican Rep., Ecuador, El Salvador, Estonia, Finland, France, Germany, Greece, Grenada, Guatemala, Guyana, Haiti, Honduras, Hungary, India, Ireland (Rep.), Italy, Jamaica, Latvia, Lithuania, Luxembourg, Malta, Mexico, Netherlands, Nicaragua, Panama, Paraguay, Peru, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, St. Kitts and Nevis, Suriname, Sweden, Trinidad and. Tobago, USA, Uruguay or Venezuela. 4) Passengers 8 years old and younger are exempt.(Last Updated: 06/12/2022)	https://sd.usembassy.gov/covid-19-information/
Suriname	Persons who are fully vaccinated or can present a COVID-l9 recovery certifrcate not older than six (6) months and have stayed in Guyana or French Guyana at least 14 days and are travelling to Suriname by land do not need to submit a Negative SARS-CoV-2 PCR or a negative SARS-CoV-2 antigen test result.(Updated:04/13/2022)	https://www.flyslm.com/wp-content/uploads/2022/04/SUR-COVID-19-Measures-13-April-2022.pdf
Sweden	COVID-19 travel restrictions have been lifted in Sweden. Providing proof of vaccination, recovery from COVID-19 or negative test results is not required.	https://www.folkhalsomyndigheten.se/the-public-health-agency-of-sweden/communicable-disease-control/covid-19/recommendations-for-those-travelling/

Switzerland	There are currently no entry restrictions due to the COVID-19 pandemic. No proof of vaccination, recovery or testing is required for entry into Switzerland.	https://www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/novel-cov/empfehlungen-fuer-reisende/quarantaene-einreisende.html#-924144951
Syria	If you're fully vaccinated, you can enter Syria without needing to test but you may be required to isolate.If you're not fully vaccinated, you'll need to show proof of a negative PCR test (taken no more than 72 hours before entry) when entering Syria.(Last updated:05/28/2022)	https://www.gov.uk/foreign-travel-advice/syria/entry-requirements
Tajikistan	Each traveler aged three years and older must present either 1) a COVID-19 vaccination certificate showing that they are fully vaccinated or 2) 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. (Last updated: 06/28/2022)	https://tj.usembassy.gov/covid-19-information/
Thailand	From 1 July, 2022, foreign nationals are only required to show proof of either a certificate of vaccination or a negative RT-PCR or professional ATK test result within 72 hours of travel.	https://www.tatnews.org/
Togo	For fully vaccinated travellers arriving in Togo, PCR test is no longer required and will not be performed upon arrival either. For unvaccinated travellers arriving in Togo, proof of a negative PCR test is still required and these passengers will be subjected to a PCR test at arrival.The validity of the PCR test results is 5 days.(Date last modified: 15/04/2022)	https://voyage.gouv.tg/?language=en#p2
Trinidad and Tobago	Effective 1st July, 2022, COVID-19 PCR or Lab Acquired Antigen Test results will No Longer be required for entry into Trinidad and Tobago.	https://health.gov.tt/preparation-for-entry
Tunisia	The 05-day self-confinement rule is no longer required for foreign visitors over the age of 18 who are not vaccinated or who have not completed their vaccination schedule. However, they are still compelled to present a negative result of a PCR test carried out 48 hours before boarding or of a 24-hour rapid test prior arriving on Tunisian territory..(Updated 27th May 2022)	https://www.discovertunisia.com/en/infos-pratiques/entry-requirements
Turkey	A PCR test is required for individuals over the age of 12 years old who are unable to show proof of vaccination or are unable to submit a document stating that they have had the virus within the last 6 months.(Last Updated: 06/132022)	https://tr.usembassy.gov/covid-19-information-2/
Uganda	If you are fully vaccinated (and for children under the age of 6) you are now able to enter Uganda via air and land border points without showing a negative COVID-19 PCR certificate. You will be required to show evidence that you are fully vaccinated. If you are not fully vaccinated you will need to show a negative COVID-19 PCR certificate issued no more than 72 hours before departure on arrival by land or air.	https://www.gov.uk/foreign-travel-advice/uganda/entry-requirements#entry-rules-in-response-to-coronavirus-covid-19
United Arab Emirates	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.	https://covid19.ncema.gov.ae/en/News/Details/2316

United Kingdom	From 4am 18 March,2022, no-one entering the UK will need to take tests or complete a passenger locator form.	https://www.gov.uk/government/news/all-covid-19-travel-restrictions-removed-in-the-uk
United Republic of Tanzania	Fully vaccinated travelers are exempt from testing requirements. Travelers will be required to present a valid vaccination certificate with QR code for verification upon arrival.(Last updated on :06/27/2022).	https://tz.usembassy.gov/covid-19-information/
United States	As of 12:01AM ET on June 12, 2022, CDC will no longer require air passengers traveling from a foreign country to the United States to show a negative COVID-19 viral test or documentation of recovery from COVID-19 before they board their flight. (Last updated on :06/13/2022)	https://www.cdc.gov/coronavirus/2019-ncov/travelers/noncitizens-US-air-travel.html
Uruguay	Foreign citizens who are fully vaccinated or have already completed the COVID-19 disease within the last 90 (ninety) days 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.	https://www.gub.uy/ministerio-salud-publica/comunicacion/publicaciones/requisitos-para-ingreso-uruguay-personas-nacionales-extranjeras
Uzbekistan	Effective June 10, 2022, COVID testing or proof of vaccination are no longer required to enter Uzbekistan at any air, rail or land entry point. (Last updated: 06/13/2022)	https://uz.usembassy.gov/covid-19-information/
Venezuela	Effective May 30, 2022, all air passengers entering Venezuela must present a certificate of vaccination against COVID-19 (completed vaccination schedule) in either physical or digital format (with QR code), with the last dose administered at least 14 days prior to the entry date in Venezuela. If more than 270 days has passed since the last dose of a completed vaccination schedule, proof of a booster dose is required. In lieu of proof of vaccination, passengers must present a negative PCR-RT COVID-19 test result, taken within 72 hours of arriving. (Last updated: 06/21/2022)	https://ve.usembassy.gov/covid-19-information/
Viet Nam	Foreign arrivals will no longer have to take any COVID-19 tests to enter Viet Nam from May 15, 2022, the Government announced Friday.	https://en.baochinhphu.vn/viet-nam-to-scrap-covid-19-test-requirements-for-vaccinated-entrants-from-mid-may-11122051320312898.htm
Zambia	Fully vaccinated traveller do not require any form of negative COVID test results, but shall be requires to provide proof of a full vaccination status.(Updated:03/23/2022)	https://www.zambiaimmigration.gov.zm/wp-content/uploads/2022/03/Revised_Travel_Guidelines_Zambia.pdf
Zimbabwe	All ports of entry have been opened. Returning residents & visitors will no longer be required to present a negative COVID19 PCR certificate at the port of entry but should present a valid Vaccination Certificate showing they are fully vaccinated.	https://zimbabwetourism.net/covid19-guidelines-for-travellers/

Reopen for International Travel With Required COVID-19 Testing (29 Member States)

Updated on 5 July, 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.(Last updated: 06/14/2022)	https://ao.usembassy.gov/covid-19-information/
Burundi	All travellers are required the negative COVID-19 test(PCR and/or serology) for entry. The test must be done within 72 hours of boarding a plane to Bujumbura. All travelers must take a COVID-19 test upon arrival. The cost is $100. (Last updated: 06/13/2022)	https://bi.usembassy.gov/covid-19-information/
Chile	While it is not mandatory, it is always advisable to perform a diagnostic test before traveling.The approval of vaccines to access the Mobility Pass is voluntary. We recommend processing it, since the pass allows you to enter interior rooms of restaurants, cinemas, theaters, bus trips, among others.	https://www.chile.travel/planviajarachile/
Congo	If you are a traveler to Congo, you must before your departure from abroad: Pay for the COVID-19 PCR test to be carried out as soon as you arrive at Congo airports (Brazzaville and Pointe Noire).	https://voyage-congo.com/en/
Democratic Republic of Congo	If you're fully vaccinated, Travellers aged 11 and above need to provide proof of a negative coronavirus test upon entry to DRC and/or proof of vaccination against COVID-19. The test result date must be within the 48 hours prior to your arrival. Children under the age of 11 are exempt. There is no requirement for a PCR COVID-19 test at the airport upon arrival.If you're not fully vaccinated,you will be subject to an additional PCR test on arrival.	https://www.gov.uk/foreign-travel-advice/democratic-republic-of-the-congo/entry-requirements
Djibouti	Even if you are fully vaccinated you will still need to arrive with a PCR test which must have been taken within 72 hours of the start of the journey and 120 hours of arrival in Djibouti. On arrival you will be required to take an additional COVID-19 test at the airport for which you will pay $30.	https://www.gov.uk/foreign-travel-advice/djibouti/entry-requirements#entry-rules-in-response-to-coronavirus-covid-19
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.aeropuertoquito.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.(Last updated: 05/09/2022)	https://er.usembassy.gov/covid-19-information/
Fiji	Fiji is quarantine free for fully-vaccinated travellers from all over the world. Travellers (16yrs+) must produce a digital/paper certification of full-vaccination at least 14 days before travel. All travellers (12 years+) must take a pre-booked Rapid Antigen Test (RAT) anytime within 72 hours of arrival in Fiji, at their hotel or nearby testing facility. This test must also be taken by travellers transiting Fiji for more than 48 hours	https://www.fiji.travel/articles/frequently-asked-questions-travelling-to-fiji
Guinea-Bissau	Entry and exit into Guinea-Bissau is permitted only with the presentation of a negative COVID-19 test result (done within 72 hours from the start of travel) (Last updated: 05/27/2022)	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
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.(Updated on: 04/29/2022)	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
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.(Updaed:04/21/2022)	https://www.nphil.gov.lr/index.php/liberia-health-ministry-introduces-new-covid-19-protocols-for-travelers/
Libya	A COVID-19 PCR test administered no more than 48 hours prior to travel to Libya is required.(Last updated: 05/10/2022)	https://ly.usembassy.gov/u-s-citizen-services/covid-19-information/
Madagascar	Entry requirements update, May 12, 2022:Presentation of a negative result of an Rt-PCR test performed 72 hours before boarding.Performing a rapid antigen test upon arrival in Madagascar, at the traveler's expense. In case of a positive result to the rapid antigen test on arrival, a 7-day self-isolation at least will be implemented in a dedicated facility, at the traveler's expense.	https://madagascar-tourisme.com/Fr-fr/border-reopening/
Mauritania	A NEGATIVE PCR TEST IS ONLY REQUIRED FOR ENTRY TO MAURITANIA IF YOU LACK PROOF OF FULL VACCINATION. Fully vaccinated persons are still require to present a negative PCR test result by airlines prior to boarding for Mauritania bound flights. (Last updated: 06/13/22)	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 holidayCOVID-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/
Myanmar	All foreign nationals are required to present laboratory evidence of a negative COVID-19 RT-PCR test issued at most 48 hours before arrival if you are unable to present a COVID-19 fully vaccinated certificate at least 14 days before arrival to Myanmar with one of the vaccines approved by the Ministry of Health (MOH)l.(Last updated: 06/17/2022)	https://mm.usembassy.gov/covid-19-information/
New Zealand	Lastest updated: 21 June 2022: 1)You do not need a pre-departure test to enter New Zealand. 2) Most travellers need to be vaccinated and take 2 rapid antigen tests (RATs) after arriving in New Zealand.	https://covid19.govt.nz/international-travel/travel-to-new-zealand/pre-departure-tests-to-enter-new-zealand/

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/
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.palaugov.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
Qatar	Travelers who are required to have a PCR lab result before traveling to Qatar must have it at a medical center authorized by the health authorities in the country of departure. A negative test result is required and must be obtained no more than 48 hours before the time of departure from the country of origin. (Please see the pre-travel test rules for detailed guidance.)	https://covid19.moph.gov.qa/EN/travel-and-return-policy/Pages/default.aspx
Republic of 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.Arriving passengers will experience some combination of temperature screening, health questionnaires, quarantines, and/or COVID-tests, depending on points of departure, visa status, and nationality.(Updated:05/11/2022)	https://kr.usembassy.gov/022420-covid-19-information/
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. (Last updated:03/30/2022)	https://ru.usembassy.gov/covid-19-information/
Rwanda	As part of Government measures to prevent the spread of COVID-19, the following is mandatory upon entry into Rwanda, effective 14th May 2022: Arriving passengers at Kigali International Airport must present a negative Antigen Rapid Test (RDT) taken 72 hours prior to departure (meaning travelers must be tested and get results within 3 days of their first flight). COVID-19 Test is not mandatory for accompanied children under 5 years. Incoming travelers eligible (aged 12 years and above) for Covid-19 vaccine are encouraged to be fully vaccinated before their travel. An additional Antigen Rapid Test (RDT) will be taken upon arrival at own cost.	https://www.rbc.gov.rw/index.php?id=745
Saint Kitts and Nevis	Effective Friday April 1st 2022, all travelers must submit a Rapid Antigen negative test result from a CLIA/CDC/UKAS approved lab accredited with ISO/IEO 17025 standard, taken 1 day prior of your arrival or 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.	https://www.stkittstourism.kn/travel-requirements

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.(Last updated: 06/13/2022)	https://ss.usembassy.gov/covid-19-information/

COVID-19 Weekly Epidemiological Update

Edition 99 published 6 July 2022

In this edition:

Global overview

Data as of 3 July 2022

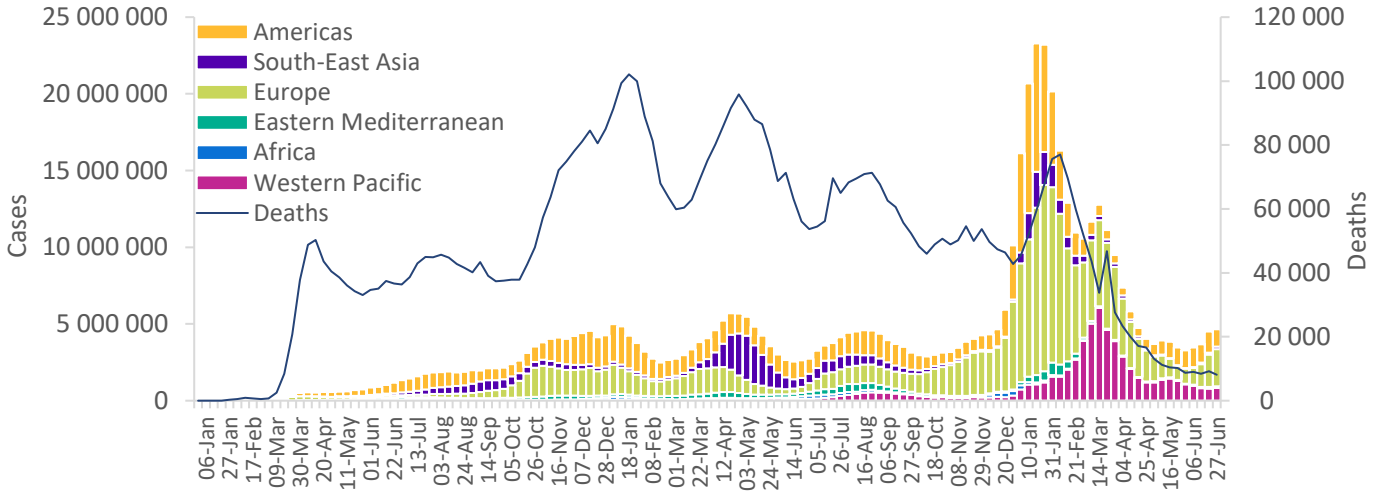
Globally, the number of weekly cases has increased for the fourth consecutive week, after a declining trend since the last peak in March 2022. During the week of 27 June to 3 July 2022, over 4.6 million new cases were reported, a figure similar to that of the previous week (Figure 1). The number of new weekly deaths decreased by 12%, with over 8100 fatalities reported.

At the regional level, the number of new weekly cases increased in the Eastern Mediterranean Region (+29%), the South-East Asia Region (+20%), the European Region (+15%), and the Western Pacific Region (+4%), while it decreased in the African Region (-33%) and the Region of the Americas (-18%). The number of new weekly deaths increased in the Eastern Mediterranean Region (+34%) and the South-East Asia Region (+16%), while decreases were observed in the African Region (-50%), the Region of the Americas (-13%), the European Region (-12%) and the Western Pacific Region (-12%).

As of 3 July 2022, over 546 million confirmed cases and over 6.3 million deaths have been reported globally.

These trends should be interpreted with caution as several countries have been progressively changing 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 July 2022**



**See *Annex 1: Data, table, and figure notes*

At the country level, the highest numbers of new weekly cases were reported from France (603 074 new cases; +33%), Germany (555 331 new cases; -2%), Italy (511 037 new cases; +50%), the United States of America (496 049 new cases; -29%), and Brazil (334 852 new cases; -4%).

The highest numbers of new weekly deaths were reported from the United States of America (1 622 new deaths; -19%), Brazil (1 187 new deaths; -10%), China (755 new deaths; -30%), Italy (430 new deaths; +21%), and the Russian Federation (371 new deaths; -14%).

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

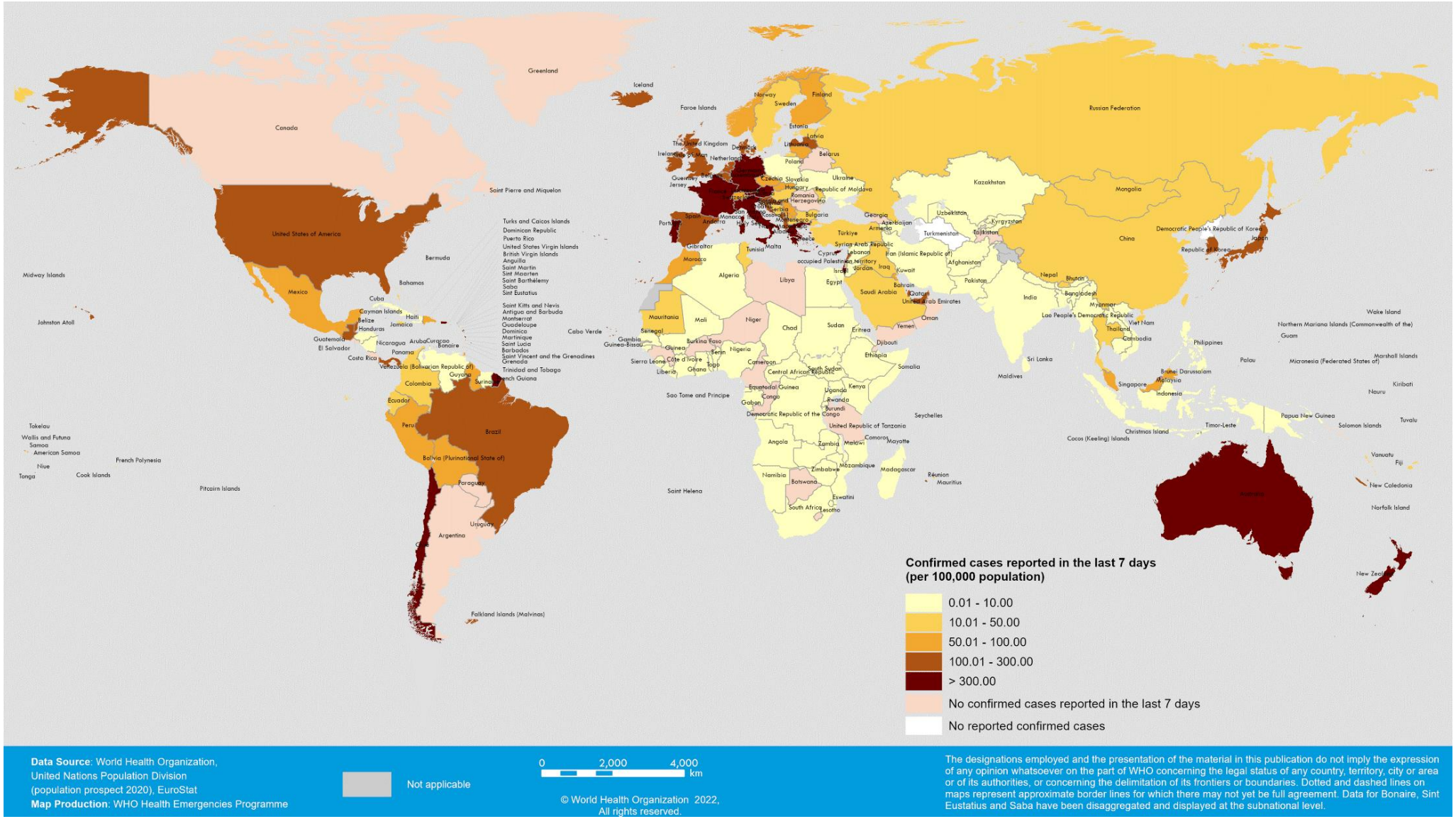
WHO Region	New cases in last 7 days (%)	Change in new cases in last 7 days *	Cumulative cases (%)	New deaths in last 7 days (%)	Change in new deaths in last 7 days *	Cumulative deaths (%)
Europe	2 421 772 (52%)	15%	228 917 538 (42%)	2 347 (29%)	-12%	2 027 968 (32%)
Americas	1 128 639 (24%)	-18%	163 205 242 (30%)	3 632 (45%)	-13%	2 762 527 (44%)
Western Pacific	827 117 (18%)	4%	64 433 670 (12%)	1 526 (19%)	-12%	238 904 (4%)
South-East Asia	157 080 (3%)	20%	58 628 247 (11%)	364 (4%)	16%	790 178 (12%)
Eastern Mediterranean	95 912 (2%)	29%	22 044 303 (4%)	111 (1%)	34%	343 596 (5%)
Africa	18 483 (0%)	-33%	9 134 221 (2%)	122 (2%)	-50%	173 616 (3%)
Global	**4 649 003 (100%)**	**3%**	**546 363 985 (100%)**	**8 102 (100%)**	**-12%**	**6 336 802 (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:

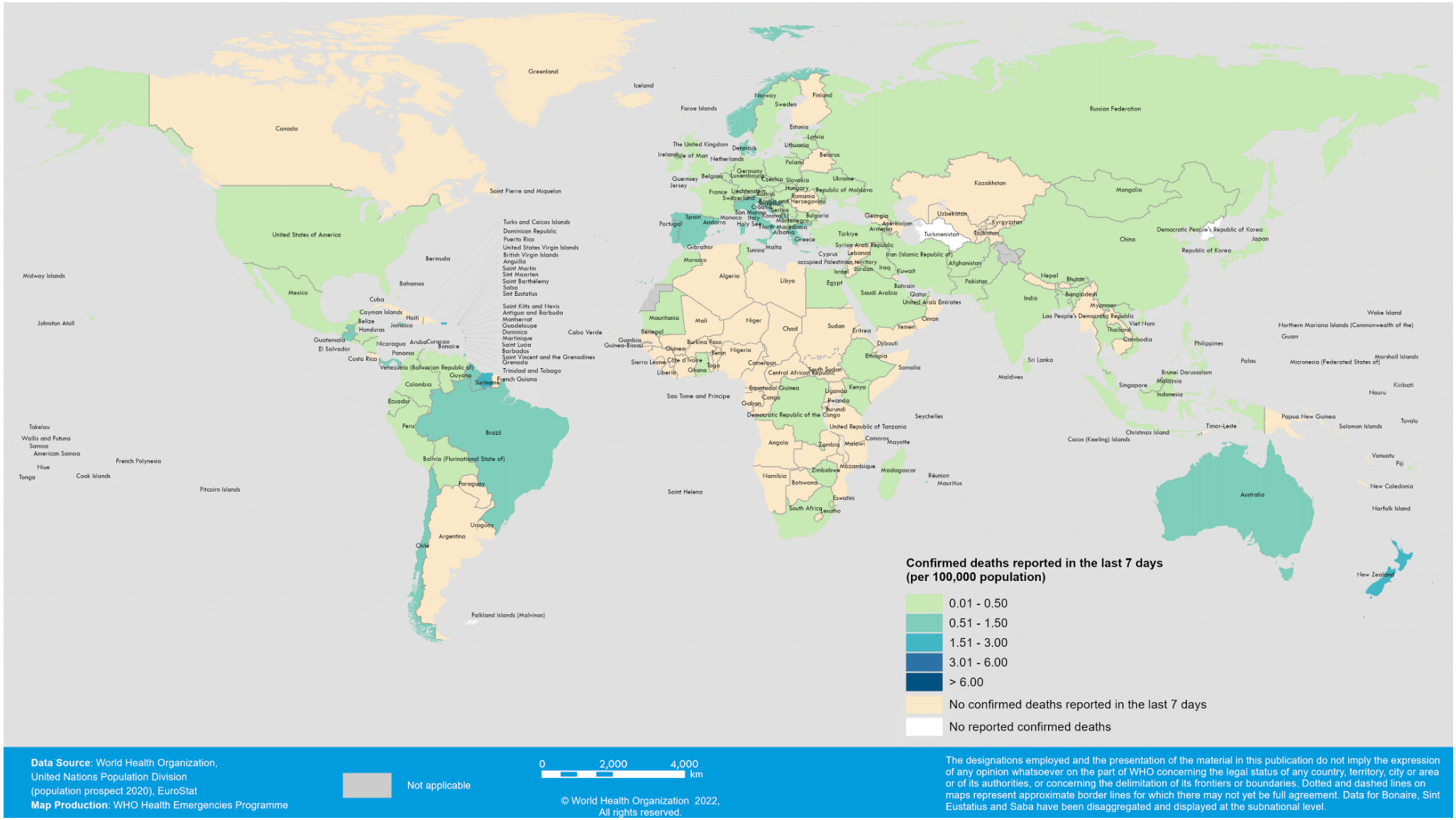
- WHO COVID-19 Dashboard
- WHO COVID-19 Weekly Operational Update and previous editions of the Weekly Epidemiological Update
  WHO COVID-19 detailed surveillance data dashboard

Figure 2. COVID-19 cases per 100 000 population reported by countries, territories and areas, 27 June - 3 July 2022*



**See *Annex 1: Data, table, and figure notes*

Figure 3. COVID-19 deaths per 100 000 population reported by countries, territories and areas, 27 June - 3 July 2022**



**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 the effectiveness of vaccines, therapeutics, diagnostics or public health and social measures (PHSM) applied to control disease spread. Potential variants of concern (VOCs), variants of interest (VOIs) or variants under monitoring (VUMs) are regularly assessed based on the risk posed to global public health.

The classifications of variants will be revised as needed to reflect the continuous evolution of circulating variants and their changing epidemiology. Criteria for variant classification, and the lists of currently circulating and previously circulating VOCs, VOIs and VUMs, are available on the WHO Tracking SARS-CoV-2 variants website. National authorities may choose to designate other variants and are strongly encouraged to investigate and report newly emerging variants and their impact.[1]

Geographic spread and prevalence of VOCs

The Omicron VOC continues to be the dominant variant circulating globally, accounting for 92% of sequences reported to GISAID between 1 and 30 June 2022. The remaining 8% waiting to be assigned are (presumed Omicron), Delta VOC and recombinants. Among Omicron lineages, the proportions of BA.5 and BA.4 continue to increase. BA.5 has been detected in 83 countries, and during epidemiological week 25 (19 to 25 June), the proportion of BA.5 among all sequences submitted weekly to GISAID increased from 37% to 52% (Table 2). Although BA.4 is also rising globally, the rate of increase is not as high as that of BA.5. BA.4 has been detected in 73 countries, and now accounts for 12% of all sequences submitted during week 25 (up from 11% in the previous week). BA.4 and BA.5 share similar mutations in SARS-CoV-2 spike but have different mutations in non-spike regions.

Globally, the proportions of Omicron lineages BA.2 and BA.2.12.1 have decreased as compared to week 23 (5 to 11 June). During week 25, the prevalence of BA.2 among all sequences submitted to GISAID was 9% (a decrease from 16% in the previous week) and the prevalence of BA.2.12.1 was 11% (a decrease from 19% in the previous week). BA.2 and BA.2.12.1 have been reported in 150 and 84 countries, respectively. There is no evidence yet regarding any change in severity with BA.4, BA.5 or BA.2.12.1 as compared to BA.2. However, the rise in prevalence of BA.2.12.1, BA.4 and BA.5 has coincided with an increase in cases in several WHO regions. In some countries, the rise in cases also resulted in a surge in hospitalizations, ICU admissions and deaths. In countries where the incidence of BA.4, BA.5 or BA.2.12.1 cases is now declining, the rise in cases, hospitalizations, ICU admissions and deaths have been lower as compared to the previous BA.1 and/or BA.2 waves. The differences observed in epidemiological situations is likely influenced by a number of factors, including surveillance, vaccination coverage and the implementation of PHSM.

Figure 4. Panel A and B: The number and percentage of SARS-CoV-2 sequences, as of 3 July 2022

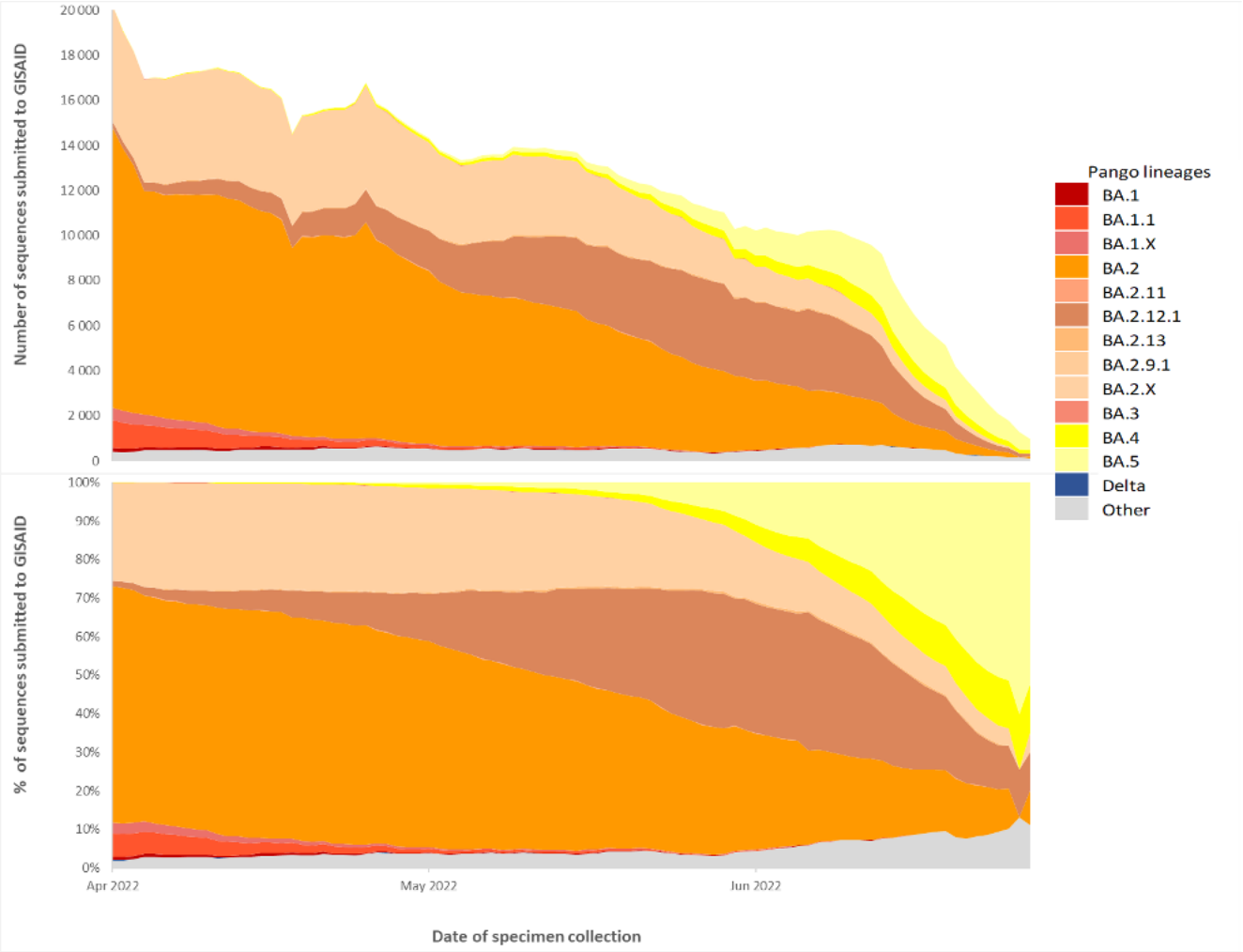


Figure 4 Panel A shows the number and **Panel B** the percentage of all circulating variants since 1 April 2022. Omicron sister-lineages and additional Omicron VOC descendent lineages under further monitoring (VOC-VUM) are shown. BA.1.X and BA.2.X include all BA.1 and BA.2 pooled descendent lineages, except those already shown in the figure above. Source: SARS-CoV-2 sequence data and metadata from GISAID, as of 3 July 2022.

Table 2. Relative proportions of SARS-CoV-2 sequences over the last four weeks by specimen collection date

			Last 4 weeks by collection date (%) [b]			
Lineage	**Countries**	**Sequences[a]**	**2022-22**	**2022-23**	**2022-24**	**2022-25**
BA.1	177	494 370	0.04	0.03	0.01	0.00
BA.1.1	177	973 139	0.12	0.06	0.03	0.03
BA.1.X*	176	907 266	0.08	0.03	0.04	0.02
BA.2	150	1 140 152	27.17	21.06	15.89	9.00
BA.2.11	20	697	0.03	0.02	0.01	0.06
BA.2.12.1	84	180 177	32.93	29.76	19.03	10.57
BA.2.13	44	3 366	0.52	0.47	0.38	0.41
BA.2.9.1	14	722	0.02	0.02	0.01	0.00
BA.2.X*	137	508 704	13.51	10.00	7.47	4.41
BA.3	41	1 060	0.01	0.02	0.03	0.00
BA.4	73	23 625	5.68	8.35	10.69	12.48
BA.5	83	56 476	14.22	23.11	36.92	51.68
Delta[#]	202	4 348 347	0.02	0.00	0.01	0.01
Other[^]	210	2 706 558	5.65	7.08	9.48	11.34

[a] Data source: cumulative sequences and metadata from GISAID.

[b] Relative proportions in %.

*BA.1.X and BA.2.X include all BA.1 and BA.2 pooled descendent lineages, except those already shown in the table.

[#] Previously circulating VOC.

[^]Other include sequences waiting to be assigned, Delta VOC and recombinants.

Characteristics of Omicron

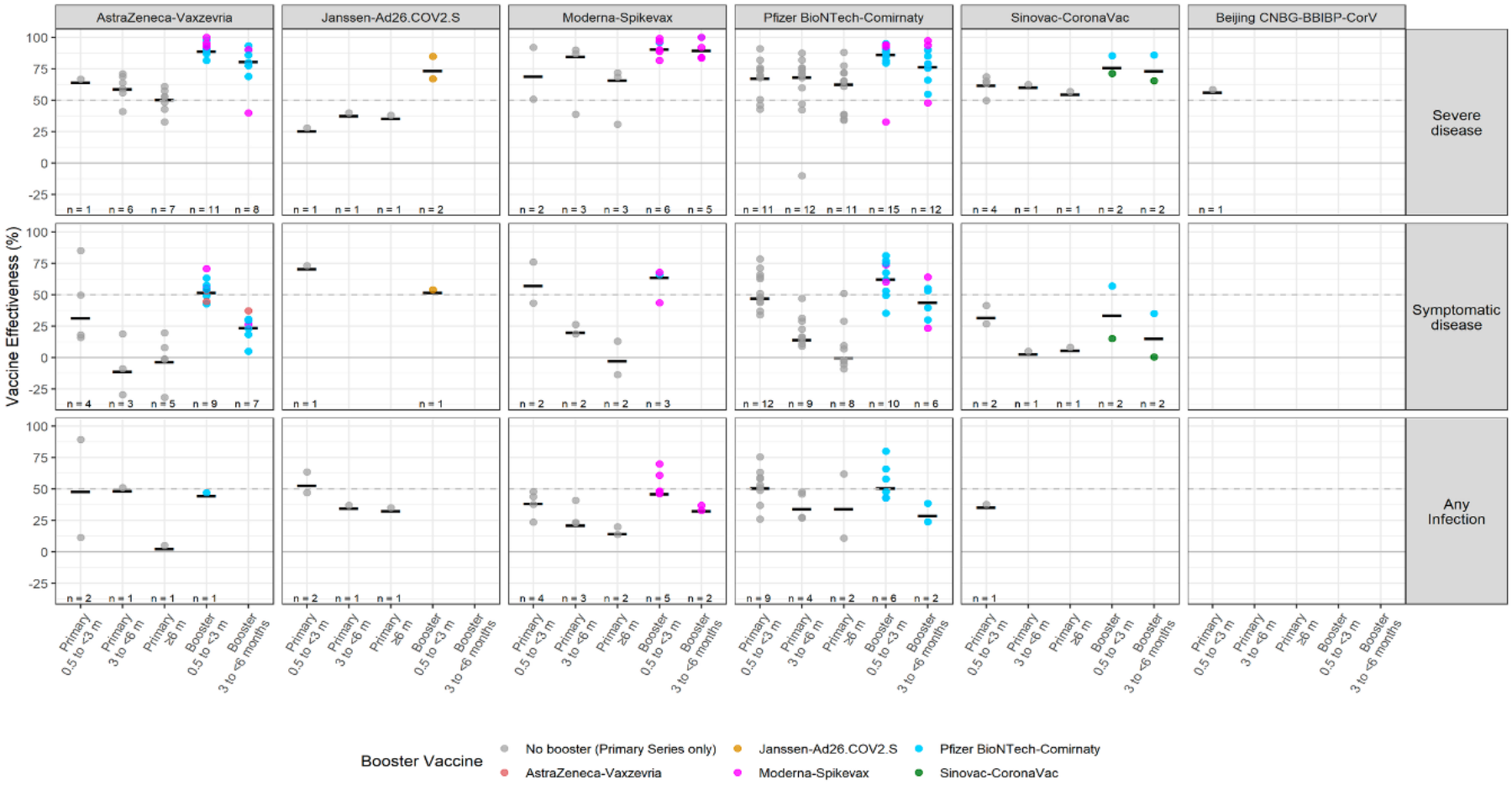
Available evidence on the phenotypic impacts of VOCs is reported in previous editions of the COVID-19 Weekly Epidemiological Update. Table 2 summarizes the phenotypic characteristics of the Omicron VOC and its sub-lineages for which evidence is available since the last update on 22 June 2022. Some of these studies have not been peer-reviewed and the findings must, therefore, be interpreted with due consideration of this limitation.

Table 3. Summary of phenotypic characteristics* of the Omicron VOC

Public health domain of impact	Omicron (B.1.1.529)	Omicron sublineages			
		BA.1	BA.2	BA.4	BA.5
Transmissibility	Growth advantage and increased transmissibility compared to Delta [1]	Lower transmissibility compared to BA.2[2]	Increased transmissibility compared to BA.1 [2]	Growth advantage compared to BA.2 [2]	Growth advantage over BA.2[2]
Disease severity	Overall evidence suggests lower severity despite some conflicting results. Earlier studies reported lower severity compared to Delta. [3–7] However, more recent studies in different settings reported similar [8,9] or increased severity[10] compared to Delta.[3–7,11] [12]	No difference in disease severity compared to BA.2[13]	No difference in disease severity compared to BA.1[13]	Currently available evidence does not suggest a difference in disease severity compared to BA.1 [14]	Currently available evidence does not suggest a difference in disease severity compared to BA.1 [15,16]
Risk of reinfection	Reduced risk of Omicron reinfection among individuals previously infected with a different SARS-CoV-2 variant compared to naïve individuals[17,18]	Reduced risk of reinfection with BA.1 following infection with BA.2[19]	Reduced risk of reinfection with BA.2 following infection with BA.1 [19]	No specific data available	No specific data available
Impact on antibody responses	Reduction in neutralizing activity as compared to other VOCs[20–22]	Lower neutralising antibody titers compared to the index virus [21]	Lower neutralising antibody titers compared to the index virus[21]	Lower neutralising antibody titres (7.6-fold) compared to BA.1 [23–25]	Lower neutralising antibody titres (7.5-fold) compared to BA.1 [23,25]
Impacts on diagnostics	PCR assays that include multiple gene targets maintain their accuracy to detect Omicron[26]; S gene target failure/positivity (SGTF) may be a proxy for screening. Limited to no impact on sensitivity of Ag-RDTs observed[27–30]	S gene target failure.	The majority will be S gene target positive (SGTP).	S gene target failure.	S gene target failure.
Impact on treatment	No difference in the effectiveness of antiviral agents (polymerase and protease inhibitors) against the Omicron variant[31]. Conserved neutralizing activity for three broadly neutralizing monoclonal antibodies (sotrovimab, S2X259 and S2H97) and a reduced effectiveness of other monoclonal antibodies[32–35]	Reduced efficacy of cilgavimab[36] and casirivimab-imdevimab [37]	Reduced neutralising activity of sotrovimab[36, 37] , casirivimab and imdevimab [38]	Reduced neutralising activity of cilgavimab[38], casirivimab and imdevimab[38]	Reduced neutralising activity of cilgavimab[38], casirivimab and imdevimab[38]
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.				

[1] Similar methodology used as Reference [1]

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



Dots represent point estimates of VE from each study; dark black horizontal lines represent median VE across all studies in stratum. All data is from a systematic review of COVID-19 VE studies; methods and summary tables of VE studies can be found on view-hub.org. Vertical panels represent VE for full primary series (grey dots) and VE for homologous or heterologous booster vaccination (other colored dots) following completion of primary series vaccination with vaccine of primary series noted in panel header. All booster VE estimates are for the first booster dose. Severe disease includes 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 text.

Figure 5 summarizes the impact of the Omicron variant on vaccine effectiveness (VE) over time, grouped by the primary series vaccine; booster doses may have been a different vaccine (i.e., both homologous and heterologous booster vaccination VEs are shown). Additional information on vaccine performance against VOCs can also be found in Annex 2.

Methods for Figure 5

- 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 designs conducted when Omicron was the predominant circulating variant. Methods for the systematic review and inclusion/exclusion criteria are available on view-hub.org.
- Only studies providing VE estimates of individual vaccines are included in the plot; studies assessing combined VE of more than one vaccine are excluded except for studies of heterologous primary and booster schedules where all participants included in a VE estimate received the same brands of vaccines in the same order.
- Only studies providing VE estimates for discrete time intervals since vaccination or estimates with limited follow-up time (such that the median time point falls clearly in one of the intervals for the plot) are included. Studies that only provide VE estimates over a cumulative period of time covering more than one time interval are excluded because they are difficult to interpret due to the marked waning of VE over time with Omicron.
- Only estimates of absolute vaccine effectiveness (i.e., the comparison group is unvaccinated persons) are included in the plot; estimates of relative vaccine effectiveness (e.g., the comparison group is persons having completed the primary series) are excluded as the interpretation of relative vaccine effectiveness is not comparable with absolute vaccine effectiveness.

Interpretation of the results of absolute VE for the Omicron variant

To date, 33 studies from 14 countries (Argentina, Brazil, Canada, Chile, Czech Republic, Denmark, Finland, Norway, Israel, Qatar, South Africa, the United Kingdom, the United States of America, and Zambia) have collectively assessed the protection of six vaccines against the Omicron variant (12 studies contributed VE estimates of primary series vaccination only, four contributed to estimates of first booster vaccination only, and 17 contributed to both). Findings from these studies show reduced VE of COVID-19 primary series vaccines against the Omicron variant for all outcomes (*severe disease*, *symptomatic disease*, and *infection*) than has been observed for the other four VOCs. Importantly though, VE estimates against the Omicron variant remain higher for *severe disease* than the other outcomes, in the majority of studies. The first booster vaccination substantially improves VE for all outcomes and for all combinations of schedules with estimates available for both primary series and booster vaccination. VE declines more over time after the first booster vaccination for symptomatic disease and infection than it does for severe disease[39]; however, studies that assess VE of booster vaccination beyond six months to evaluate longer duration of protection are not yet available.

For *severe disease*, VE of the primary series showed little decline over six months. VE was ≥70% during the first three months after primary series vaccination for seven of 13 (54%) VE estimates for the mRNA vaccines (Moderna-Spikevax and Pfizer BioNTech-Comirnaty). Of the two vector vaccines studies available, both had VE <70%: one reported VE <70% for AstraZeneca-Vaxzevria and the other reported VE <50% for Janssen-Ad26.COV2.S. Four estimates were available for inactivated vaccines: none of the three estimates for Sinovac-CoronaVac were ≥ 70% (2 [67%] were ≥ 50%); the single estimate for Beijing CNBG-BBIBP-CorV was <70% but ≥50%. Beyond three months after

vaccination, VE was ≥70% for 14 of 29 (48%) VE estimates for the mRNA vaccines (20 [69%] had VE ≥50%); one of 13 (8%) AstraZeneca-Vaxzevria VE estimates was ≥70% (9 [69%] were ≥50%); neither of the two estimates for the other vector-based vaccine, Janssen-Ad26.COV2.S, was ≥50%; the two VE estimates for Sinovac-CoronaVac were ≥50% but <70%.

The first booster dose vaccination improved VE against *severe disease* in all studies, and VE was ≥70% in 34 (94%) of 36 estimates evaluating VE between 14 days and three months of receipt of a booster dose (33 estimates evaluated an mRNA booster, two evaluated a Janssen-Ad26.COV2.S booster, and one evaluated a Sinovac-CoronaVac booster); one Moderna-Spikevax booster dose had VE <50%, and one Janssen-Ad26.COV2.S booster dose had VE <70%. At three to six months post mRNA booster, VE was ≥70% for 21 of 26 (81%) estimates (the primary series was an mRNA vaccine in 17 of the 26 estimates, AstraZeneca-Vaxzevria in eight and Sinovac-CoronaVac in one). One study found the VE to be <70% but ≥50% following three to six months from the third dose of Sinovac-CoronaVac.

VE against *symptomatic disease* and *infection* within the first three months of primary series vaccination was lower than against severe disease, and VE decreased more substantially over time. For *symptomatic disease*, only three of 14 (21%) VE estimates for the mRNA vaccines were ≥70% and only seven (50%) were ≥50%; one (25%) of the four VE estimates for AstraZeneca-Vaxzevria was ≥70% while the remaining three estimates were <50%; the single estimate for Janssen-Ad26.COV2.S was ≥70%, and both estimates for Sinovac (CoronaVac) were <50%. Beyond three months after vaccination, there were 31 VE estimates (21 estimates evaluated mRNA vaccines, eight evaluated AstraZeneca-Vaxzevria, and two evaluated Sinovac-CoronaVac), of which only one was ≥50% . mRNA booster vaccination after completion of a primary series of an mRNA vaccine, AstraZeneca-Vaxzevria, or Sinovac-CoronaVac improved VE against *symptomatic disease*: five of 21 (24%) VE estimates between 14 days and three months post booster were ≥70% (16 [76%] were ≥50%); one (50%) of two VE estimates evaluating three doses of AstraZeneca-Vaxzevria was ≥50% but <70% as was the single estimate for three doses of Janssen-Ad26.COV2.S, and the single estimate for three doses of Sinovac-CoronaVac was <50%. However, first booster dose protection declined rapidly over time: only three of 13 (23%) estimates available at three to six months following receipt of an mRNA booster dose had VE ≥50% and none were ≥70%. Neither the single estimate for three doses of AstraZeneca-Vaxzevria nor the single estimate for three doses of Sinovac-CoronaVac assessed three to six months post booster vaccination was above 50%. VE against *infection* showed a similar pattern of waning as that against *symptomatic disease*.

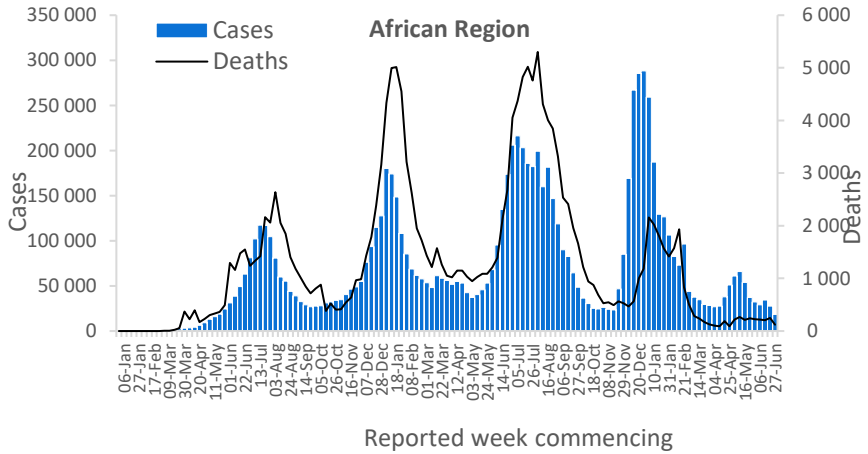
WHO regional overviews:

Epidemiological week 27 June - 3 July 2022**

African Region

The African Region reported a decline in the number of new weekly cases, with over 18 000 new cases reported, a 33% decrease as compared to the previous week. Thirteen (25%) countries reported an increase in the number of new cases of 20% or greater, with some of the greatest proportional increases seen in Mauritania (699 vs 135 new cases; +418%), Equatorial Guinea (92 vs 44 new cases; +109%) and Côte d'Ivoire (638 vs 340 new cases; +88%). The countries that reported the highest numbers of new cases were South Africa (2842 new cases; 4.8 new cases per 100 000 population; -58%), Kenya (2283 new cases; 4.2 new cases per 100 000; -20%), and Ethiopia (2038 new cases; 1.8 new cases per 100 000; -41%).

The number of new weekly deaths in the Region decreased by 50% 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; -39%), Zimbabwe (nine new deaths; <1 new death per 100 000; -40%), and Ethiopia (eight new deaths; <1 new death per 100 000; similar to the previous week's figures).

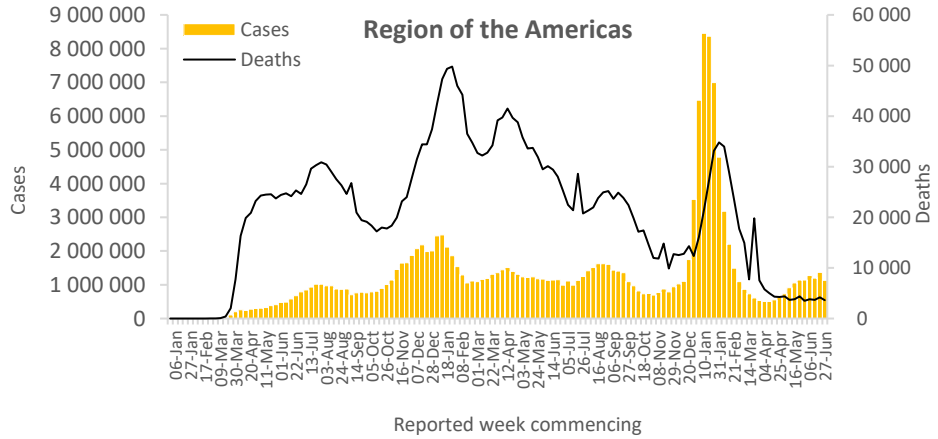


Updates from the African Region

Region of the Americas

The Region of the Americas reported a decrease in the number of new weekly cases, with over 1.1 million new cases reported, an 18% decrease as compared to the previous week. Fourteen of 46 (30%) countries for which data are available reported increases in the number of new cases of 20% or greater, with some of the greatest proportional increases observed in Saint Kitts and Nevis (155 vs 37 new cases; +319%), Haiti (302 vs 75 new cases; +303%), and Saint Barthélemy (43 vs 26 new cases; +65%). The highest numbers of new cases were reported from the United States of America (496 049 new cases; 149.9 new cases per 100 000; -29%), Brazil (334 852 new cases; 157.5 new cases per 100 000; -4%), and Mexico (97 374 new cases; 75.5 new cases per 100 000; +27%).

The number of new weekly deaths in the Region decreased by 13% as compared to the previous week, with over 3600 new deaths reported. The highest numbers of new deaths were reported from the United States of America (1622 new deaths; <1 new death per 100 000; -19%), Brazil (1187 new deaths; <1 new deaths per 100 000; -10%), and Chile (178 new deaths; <1 new death per 100 000; +12%).

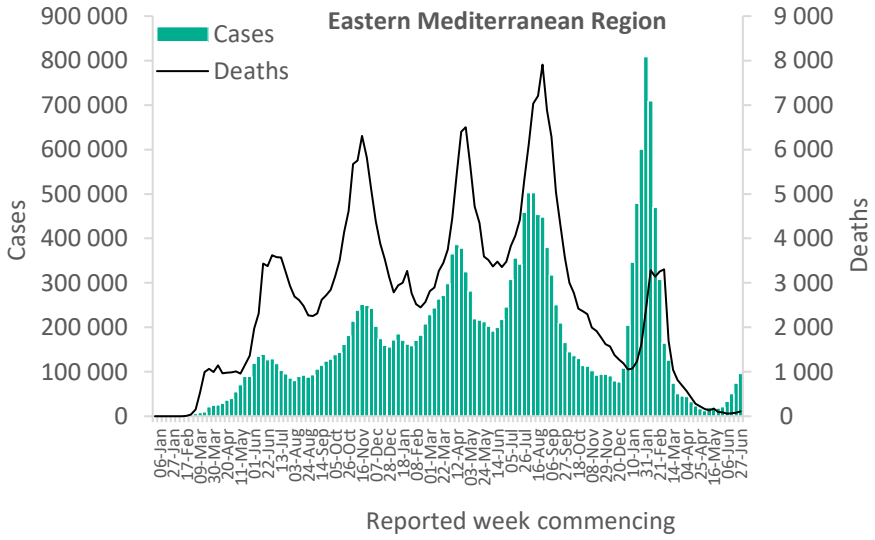


Updates from the Region of the Americas

Eastern Mediterranean Region

The Eastern Mediterranean Region reported just under 96 000 new weekly cases, representing a 29% increase as compared to the previous week. Eight (36%) countries reported increases in the number of new cases of 20% or greater, with the greatest proportional increases observed in the occupied Palestinian territory (1350 vs 403 new cases; +235%), Iraq (15 791 vs 6237 new cases; +153%), and Tunisia (5477 vs 2277 new cases; +141%). The highest numbers of new cases were reported from Morocco (21 124 new cases; 57.2 new cases per 100 000; +19%), Iraq (15 791 new cases; 39.3 new cases per 100 000; +153%), and the United Arab Emirates (12 347 new cases; 124.8 new cases per 100 000; +11%).

The number of new weekly deaths in the Region increased by 34% as compared to the previous week, with over 100 new deaths reported. Some of the highest numbers of new deaths were reported from Tunisia (21 new deaths; <1 new death per 100 000; +40%), Morocco (18 new deaths; <1 new death per 100 000; +50%), and Saudi Arabia (13 new deaths; <1 new death per 100 000; similar to the previous week's figures).

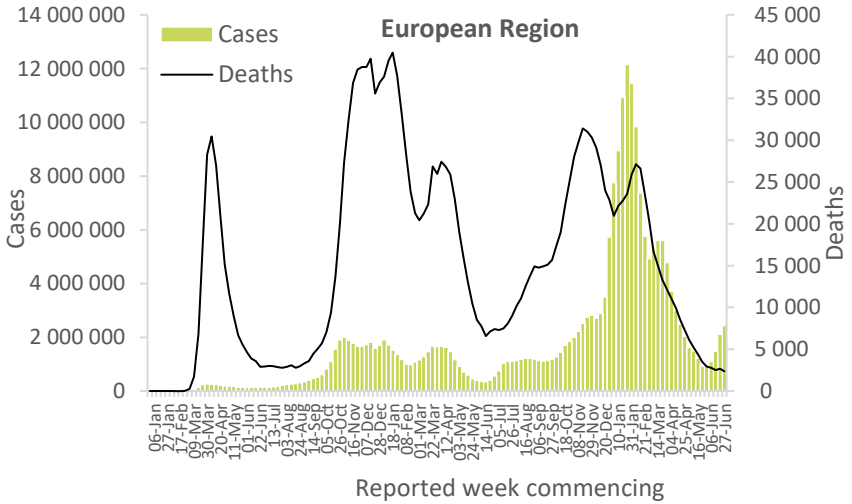


Updates from the Eastern Mediterranean Region

European Region

New weekly cases have continued to increase for over a month in the European Region, with over 2.4 million new cases reported, a 15% increase compared to the previous week. Thirty-one (51%) countries in the Region reported increases in new cases of 20% or greater, with the greatest proportional increases observed in Kosovo[1] (849 vs 199 new cases; +327%), Kyrgyzstan (29 vs 7 new cases; +314%) and Kazakhstan (959 vs 299 new cases; +221%). The highest numbers of new cases were reported from France (603 074 new cases; 927.2 new cases per 100 000; +33%), Germany (555 331 new cases; 667.7 new cases per 100 000; -2%), and Italy (511 037 new cases; 856.8 new cases per 100 000; +50%).

Over 2300 new weekly deaths were reported in the Region, a 12% decrease as compared to the previous week. The highest numbers of new deaths were reported from Italy (430 new deaths; <1 new death per 100 000; +21%), the Russian Federation (371 new deaths; <1 new death per 100 000; -14%), and Spain (312 new deaths; <1 new death per 100 000; -2%).

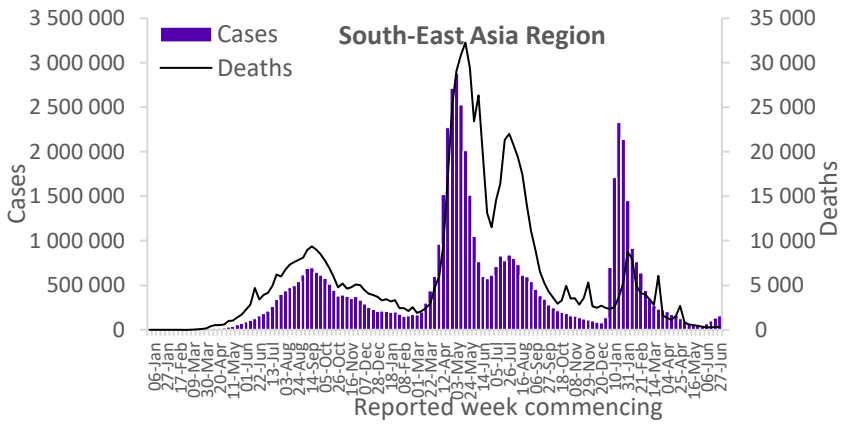


Updates from the European Region

South-East Asia Region

The South-East Asia Region has been reporting an increasing trend in cases since early June, with over 157 000 new cases reported, a 20% increase as compared to the previous week. Five of 10 countries (50%) for which data are available showed increases in the number of new cases of 20% or greater, with the greatest proportional increases observed in Bhutan (103 vs 48 new cases; +115%), Nepal (268 vs 171 new cases; +57%) and Bangladesh (13516 vs 8846 new cases; +53%). The highest numbers of new cases were reported from India (112 456 new cases; 8.1 new cases per 100 000; +21%), Thailand (15 950 new cases; 22.9 new cases per 100 000; +6%), and Bangladesh (13 516 new cases; 8.2 new cases per 100 000; +53%).

The number of new weekly deaths in the Region increased by 16% as compared to the previous week, with over 350 new deaths reported. The highest numbers of new deaths were reported from India (200 new deaths; <1 new death per 100 000; +39%), Thailand (108 new deaths; <1 new death per 100 000; -14%), and Indonesia (32 new deaths; <1 new death per 100 000; +7%).

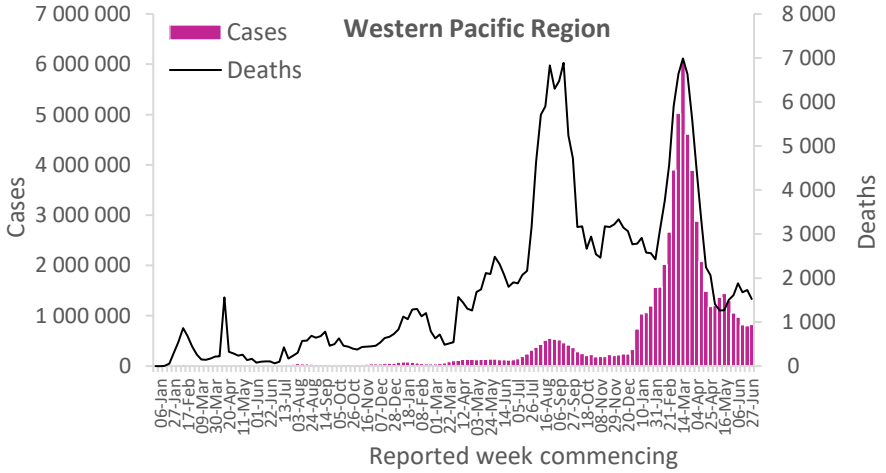


Updates from the South-East Asia Region

Western Pacific Region

After a decreasing trend in cases since mid-May, the Western Pacific Region reported a slight increase in new weekly cases, with over 827 000 new cases, a 4% increase as compared to the previous week. Thirteen (39%) countries reported increases in new cases of 20% or greater, with some of the largest proportional increases observed in the Commonwealth of the Northern Mariana Islands (190 vs 87 new cases; +118%), Palau (36 vs 20 new cases; +80%) and New Caledonia (822 vs 513 new cases; +60%). The highest numbers of new cases were reported from China (270 446 new cases; 18.4 new cases per 100 000; -19%), Australia (210 389 new cases; 825.1 new cases per 100 000; +7%), and Japan (136 357 new cases; 107.8 new cases per 100 000; +25%).

The Region reported over 1500 new weekly deaths, representing a 12% decrease as compared to the previous week. The highest numbers of new deaths were reported from China (755 new deaths; <1 new death per 100 000; -30%), Australia (331 new deaths; 1.3 new death per 100 000; similar to the previous week's figures), and Japan (192 new deaths; <1 new death per 100 000; +106%).



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.
[2] Since 21 May 2022, data for COVID-19 cases and deaths in Northern Ireland was no longer included in the United Kingdom updates.
[3] Updates of an outbreak of COVID-19 reported in the Democratic People's Republic of Korea continue through official media since 12 May 2022; however, at present, no confirmed cases or deaths have been reported to WHO.

Annex 2. Neutralization Studies of Primary Series and First Booster Vaccine Performance against Omicron Variant of Concern (data as of 27 June 2022)

		Omicron Sub-Lineage				
		BA.1	**BA.2**	**BA.2.12.1**	**BA.3**	**BA.4/BA.5**
Primary Series Vaccination						
WHO Emergency Use Listing (EUL) Qualified Vaccines	AstraZeneca-Vaxzevria/SII-Covishield	HNR_{9}	HNR_{1}	----	----	----
	Beijing CNBG-BBIBP-CorV	HNR_{7}	HNR_{2}	----	HNR_{1}	HNR_{1}
	Bharat-Covaxin	$\downarrow\downarrow_{1}$	----	----	----	----
	Cansino-Covidecia	----	----	----	----	----
	Janssen-Ad26-COV2.S	HNR_{6}	----	----	----	----
	Moderna-Spikevax	$\downarrow\downarrow\downarrow_{10}$	HNR_{2}	$\downarrow\downarrow\downarrow_{1}$	----	----
	Novavax-Nuvaxovid/SII - Covavax	----	----	----	----	----
	Pfizer BioNTech-Comirnaty	HNR_{47}	$\downarrow\downarrow\downarrow_{2}$	$\downarrow\downarrow\downarrow_{2}$	HNR_{1}	HNR_{1}
	Sinovac-CoronaVac	$\downarrow\downarrow\downarrow_{1}$	----	----	----	----
Vaccines without WHO EUL	Anhui ZL-Recombinant	----	----	----	----	----
	Gamaleya-Sputnik V	HNR_{2}	----	----	----	----
Booster Vaccination (Primary Series Vaccine + Booster Vaccine)						
WHO Emergency Use Listing (EUL) Qualified Booster Vaccines	AstraZeneca-Vaxzevria/SII-Covishield + AstraZeneca-Vaxzevria/SII Covishield	HNR_{2}	HNR_{2}	----	----	----
	AstraZeneca-Vaxzevria/SII-Covishield + Moderna-Spikevax	$\downarrow_{1}$	----	----	----	----
	AstraZeneca-Vaxzevria/SII-Covishield + Pfizer BioNTech-Comirnaty	$\downarrow\downarrow_{1}$	$\downarrow\downarrow_{1}$	----	$\downarrow\downarrow_{1}$	----
	Beijing CNBG-BBIBP-CorV + Beijing CNBG-BBIBP-CorV	$\downarrow\downarrow$to$\downarrow\downarrow\downarrow_{6}$	HNR_{2}	HNR_{1}	$\downarrow\downarrow_{1}$	HNR_{1}
	Janssen-Ad26-COV2.S + Janssen-Ad26-COV2.S	HNR_{1}	----	----	$\downarrow\downarrow_{1}$	----
	Moderna-Spikevax + Moderna-Spikevax	$\downarrow$to$\downarrow\downarrow\downarrow_{9}$	$\downarrow\downarrow_{1}$	$\downarrow\downarrow_{1}$	----	$\downarrow\downarrow\downarrow_{1}$
	Moderna-Spikevax + Pfizer BioNTech-Comirnaty	$\downarrow\downarrow\downarrow_{1}$			----	----
	Pfizer BioNTech-Comirnaty + Pfizer BioNTech-Comirnaty	$\downarrow$to$\downarrow\downarrow\downarrow_{38}$	$\downarrow$to$\downarrow\downarrow\downarrow_{11}$	$\downarrow\downarrow\downarrow_{1}$	$\downarrow$to$\downarrow\downarrow\downarrow_{3}$	$\downarrow\downarrow$to$\downarrow\downarrow\downarrow_{3}$
	Pfizer BioNTech-Comirnaty + Janssen-Ad26-COV2.S	$\downarrow_{2}$	----	----	----	----
	Pfizer BioNTech-Comirnaty + Moderna-Spikevax	$\downarrow$to$\downarrow\downarrow_{2}$	----	----	----	----
	Sinovac-CoronaVac + Sinovac-CoronaVac	HNR_{6}	$\downarrow\downarrow_{2}$	$\downarrow\downarrow_{1}$	$\downarrow\downarrow_{1}$	$\downarrow\downarrow_{1}$
	Sinovac-CoronaVac + Pfizer BioNTech-Comirnaty	$\downarrow\downarrow_{2}$	$\downarrow\downarrow_{1}$	----	----	----
Booster Vaccines without WHO EUL	Anhui ZL-Recombinant + Anhui ZL-Recombinant	HNR_{3}	----	----	----	----
	Beijing CNBG-BBIBP-CorV + Anhui ZL - Recombinant	$\downarrow\downarrow$to$\downarrow\downarrow\downarrow_{5}$	HNR_{2}	HNR_{1}	$\downarrow\downarrow\downarrow_{1}$	HNR_{1}
	Gamaleya-Sputnik V + Gamaleya Sputnik Light	$\downarrow\downarrow_{1}$	----	----	----	----
	Sinovac-CoronaVac + Anhui ZL - Recombinant	$\downarrow_{1}$	$\downarrow_{1}$	$\downarrow_{1}$	$\downarrow_{1}$	$\downarrow\downarrow_{1}$

Abbreviations: HNR=high non-response. Arrows generalize the magnitude of reduction in neutralization against the Omicron sub-lineage relative to the ancestral strain: "↔" indicates <2-fold reduction in neutralization; "↓" indicates 2 to <5-fold reduction; "↓↓" indicates 5 to <10-fold reduction; "↓↓↓" indicates ≥10-fold reduction. When more than one neutralization study is available, the interquartile range (25th and 75th percentiles) of fold-reductions across all studies was used, restricting to studies reporting ≥75% of persons/sera with detectable neutralization titers. HNR indicates a median percent of persons/sera with detectable neutralization titers across all studies of <75%; in these instances, fold-reductions can be biased and, thus are not presented. The number of studies is shown as subscripts. For booster vaccination, only schedules with available results are shown.

Additional notes on Annex 2 table

- Studies contributing to the table are identified from an ongoing review of the preprint and published literature on neutralization of SARS-CoV-2 variants by COVID-19 vaccines.
- 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 the table.
- Studies of immunocompromised persons are excluded.
- It is important to note that studies vary in population and other methodological considerations, which may in part explain some differences when comparing products between different studies. In addition, the reductions summarized in the table do not incorporate uncertainty intervals around the degree of reductions, which can vary substantially across studies when reported.

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Risk communication and community engagement approaches during the monkeypox outbreak in Europe, 2022

Stockholm, 30 June 2022

Introduction

Recent health emergencies in the European Region, such as the COVID-19 pandemic and the multi-country monkeypox outbreak, have reaffirmed the role of Risk Communication and Community Engagement (RCCE) as a core public health intervention contributing to emergency response. RCCE is instrumental in achieving results across all the main areas of response, from laboratory testing, contact tracing and isolation, to treatment and preventive/protective measures, including vaccination. For all of these measures, successful implementation is dependent on support from affected individuals and communities.

This document is intended for health authorities designing RCCE interventions in the context of the current monkeypox outbreak in Europe. It supplements the 'Interim advice on Risk Communication and Community Engagement during the monkeypox outbreak in Europe, 2022' [1] jointly published by ECDC and the World Health Organization (WHO) Regional Office for Europe. It provides examples and approaches for RCCE, while building on experience from past outbreaks. These examples can be used to inspire countries in the European Region to develop community engagement approaches and risk communication strategies adapted to the national, regional and/or local context and specific target audiences in their response to the ongoing monkeypox outbreak.

General considerations

Anyone can become infected with monkeypox, but the current outbreak in Europe is affecting gay, bisexual and other men who have sex with men (MSM) disproportionately. Health authorities therefore need to make a particular effort to ensure their RCCE is reaching MSM, and that they consider the messages to be non-stigmatising, credible and actionable. Collaboration with civil society organisations active in these community groups and with organisers of events that the groups are likely to attend (e.g. Pride events) is an effective way to achieve this.

RCCE interventions may be developed and carried out by different stakeholders including public health authorities, civil society organisations and other non-governmental organisation (NGOs), academic institutions and event organisers. When public health authorities are designing such interventions, it is of the utmost importance that representatives of the community, such as civil society organisations, are consulted during the development phase, including on the communication channels, the communicator and the messages most suitable for outreach to target audiences. The context they can provide on their communities – for

European Centre for Disease Prevention and Control/World Health Organization Regional Office for Europe. Risk communication and community engagement approaches during the monkeypox outbreak in Europe, 2022. 30 June 2022. Stockholm/Copenhagen; ECDC/WHO Regional Office for Europe: 2022.

example on perceptions, values, behaviour and trust – is key to crafting effective risk communication interventions. Moreover, it is important to note that even well-intended messages may be considered stigmatising, depending on the communication channel used, the communicator, the audience reached or the message itself. This is why it is essential to partner with community based organisations, civil society organisations and communities in designing and implementing RCCE approaches.

This document presents experiences from several of the countries affected by the outbreak (Belgium, Croatia, France, Ireland, Portugal, Spain, Sweden and UK) relating to the use of trusted communicators, targeted channels and community engagement approaches to reach MSM and other risk groups, and prevent stigmatisation. These practices, and comparable examples from other outbreaks, can serve as specific examples of RCCE for other Member States who may be facing similar challenges.

Examples of risk communication and community engagement approaches

Trusted communicators

Trusted communicators can include:

- trusted government spokespersons;
- health professionals, including those identifying as MSM;
- community champions;
- pre-existing health sector and civil society platforms/networks on HIV and MSM sexual health issues;
- civil society organisations (e.g. those working with sexual health rights and LGBT+ community advocates);
- leaders of different advocacy groups, working in health generally or in sexual health;
- event companies/organisers and/or hosts;
- managers of LGBT+ bars, night clubs, saunas and sex-on-the-premises venues (SOPVs).

During an outbreak, building and establishing trust with the affected community is extremely important for the acceptance and uptake of measures. Therefore, the use of trusted communicators for risk communication is critical. The selection of the appropriate communicators depends on the groups affected. In the case of the ongoing monkeypox outbreak, emphasis should be placed on communicators who are members of, leaders within or individuals who have long-standing relationships with MSM groups and/or the LGBT+ community.

Communication channels

Public-facing channels (i.e. channels addressing the general public) include:

- national and local health authority websites;
- national and local health authority social media accounts;
- media interviews or broadcasts with trusted spokespersons.

These are more traditional channels of communication. National and local public health websites and their social media accounts are important for publishing regular reports and updates on the situation. They are regularly used by health journalists as a source for further reporting and can be a good reference for managing rumours and misinformation. In addition, these accounts regularly publish material containing health information and advice (e.g. leaflets, infographics, etc.) which can be used for risk communication interventions.

Table 1. Examples of public-facing channels used in the current multi-country monkeypox outbreak

Channel	Example
Health authority websites	• Webpages have been set up in many countries and by institutions including ECDC, WHO and the UK Health Security Agency (UKHSA), among others. These websites include guidance for the public, health authorities and health professionals. They also include epidemiological updates and links to press briefings. Frequently asked questions (FAQs), key facts and relevant training materials may all also be linked to these webpages.
Health authority social media	• In several countries the official Twitter accounts of health authorities are used for weekly epidemiological updates and to report key information on prevention and care-seeking, if a person suspects they are infected [2-6]. These posts are accompanied by social media tiles and sometimes also infographics. • Institutions or prominent public health officials, for example WHO Regional Office for Europe's Regional Director, Hans Kluge, have used their social media platforms to share health information and advice and amplify Twitter or Facebook posts from other health authorities, to increase coverage [7].
Media interviews with trusted spokespersons	• Steve Taylor, Board Member of EURO Pride, Organiser of Copenhagen Pride, and co-Founder of Global Pride 2020, was invited by WHO Regional Office for Europe to participate in a formal press briefing to speak about the opportunity provided by mass gatherings during the summer to raise awareness and share public health messaging on monkeypox [8]. He subsequently shared this formal press briefing to his followers and online communities. • Epidemiologists from UK HSA provided information on monkeypox in short videos, including advice for Pride events [2,3]. • PrEPster, a project of the civil society organisation The Love Tank from the UK hosted streamed information sessions with Dr. Will Nutland of the London School of Hygiene and Tropical Medicine, and colleagues from the UK HSA to inform their followers about monkeypox and how to reduce risk, prevent transmission and seek care [9].
Trusted spokespersons at events	• At several Pride events across Europe, popular drag queen hosts have been collaborating with organisers and public health authorities to give health information and advice messages.

Targeted channels can include:

- civil society and non-governmental organisations, including websites and media used specifically by MSM and wider LGBT+ community;
- mass gathering and other event channels (e.g. summer tourism agencies and event planners, including those for organising Pride events, summer music festivals, fetish festivals, island parties), including webpages and social media accounts. These are rich settings for information outreach and engagement;
- dating applications (apps) - as the virus can be spread through close contact, including during sexual activities, dating apps may reach people who engage with multiple sexual partners;
- social networking apps that could reach target groups (e.g. MSM and wider LGBT+), such as Facebook, Instagram, TikTok, etc.;
- bars, saunas, or sex clubs that can use their websites, put up posters at their venues, or share information on their social media pages;
- health clinics and sexual health service websites;
- university websites and social media accounts.

Social media and other digital channels reach a larger audience in younger age groups and a growing number of people from all adult groups [10]. During the current outbreak, and due to the large number of planned mass gathering events, use of these channels should be exploited to the maximum to increase knowledge of the outbreak and provide credible and actionable information and advice to the groups most at risk. If using digital channels to reach MSM or other groups, lessons learned from previous experiences with these channels may be useful for sharing prevention information and practices. Various guides detailing digital applications used for HIV prevention activities can be in ECDC's report 'Effective use of digital platforms for STI/HIV prevention among MSM in the EU/EEA' [11].

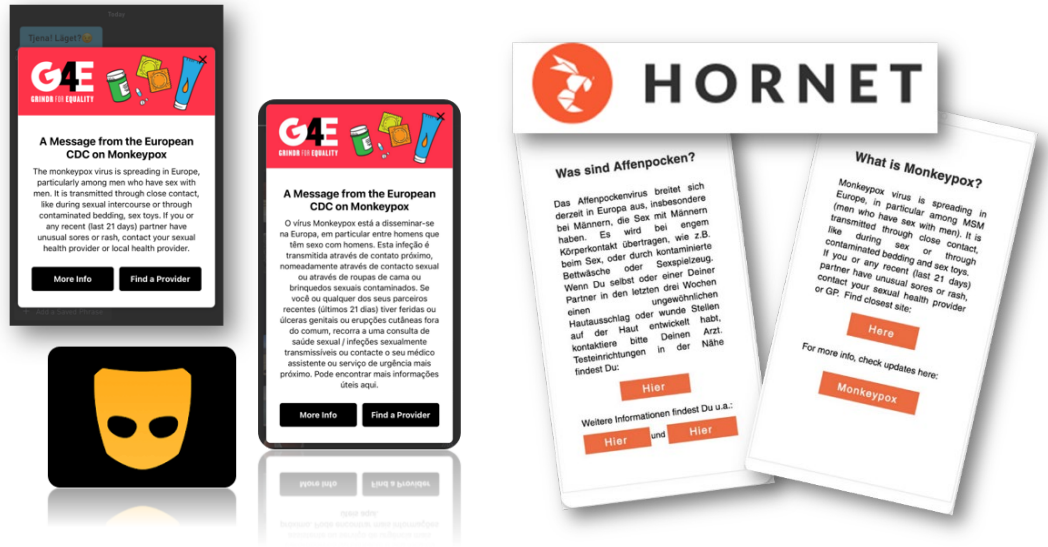
Table 2. Examples of targeted channels used in the current multi-country monkeypox outbreak

Channel	Example
Mass gatherings	• Mass gatherings can be an opportunity for risk communication before, during and after an event. • In preparation for the Glastonbury festival in the UK, key messages on sexual health and prevention of infectious disease were added to the festival website. Folded leaflets with condoms or lubricants, posters and bracelets with QR codes have been designed with civil society and public health professionals to provide advice on prevention of all sexually transmitted and infectious diseases. The messaging has remained transparent, but not solely focused on monkeypox, so as to not to stigmatise specific groups. • ECDC and WHO Regional Office for Europe have been working with the European Pride Organisers Association (EPOA), The Love Tank, and PrEPster to develop a toolkit of where and what to communicate to the participants at Pride events. The toolkit also includes multimedia elements, such as recorded messages, mini clips to broadcast on screens, and health advice posters to post at events. • After the Darklands Festival in Belgium, when several monkeypox cases were confirmed, the Federal Risk Assessment Group in Belgium worked with the festival organisers to post messages on their website indicating when and how to seek care for suspected monkeypox cases [12]. The festival organisers linked to public health messages from the Belgian health authorities and sent messages out to participants.
Dating applications (apps)	• In collaboration with Grindr and Hornet, ECDC has provided an information flash to all their users, including links to further information by ECDC and/or national health authorities and to the European Test Finder website (https://www.testfinder.info/). The key message was designed by public health professionals and community partners and adapted by the apps communication team. The pop-up message was translated into several languages and, where available, was provided in the language of the user's country (see **Figure 1** below). A similar message was sent as an inbox message to users (i.e. the message is sent to the inbox of the app and is therefore available to the user at a later date). This message was translated into 29 languages and, if available, included a link to a relevant national website. • MSM sexual health campaigns such as MPOWER in Ireland and PrEPster/The Love Tank in the UK, have also sent out messaging via dating apps. The Grindr Equality foundation provides some advertising for free on the Grindr app to health authorities and LGBT+ community organisations. Sexual health campaigns are also able to pay for advertising on Grindr [13]. • More information on the use of dating apps for HIV and STI prevention has been produced by ECDC [11].
Civil society and non-governmental organisation (NGO) websites and social media	• In Ireland and Portugal, public health authorities and civil society organisations were already working together on sexual health outreach, engagement and communication with MSM. From May 2022, these campaigns have communicated on monkeypox: - GAT in Portugal [14], - MPOWER [15] and Man2Man in Ireland [16]. • Spain initiated a campaign led by the Ministry of Health, in close collaboration with their NGO advisory committee, for the summer season and events covering sexual health, monkeypox and COVID-19, not only focusing on MSM [17]. • PrEPster, a project of The Love Tank, streamed live information sessions on a social networking website to inform their followers about monkeypox and how to reduce risk, prevent transmission and seek care [9]. • Queer Health (also a project of The Love Tank), a website that shares health information for people identifying as LGBT+, has set-up a page dedicated to monkeypox [18]. The website is available in multiple languages and includes information on monkeypox in the EU, FAQs and information from other key stakeholder websites, such as NGOs working on HIV. • The Terrence Higgins Trust in the UK has also set up a website on monkeypox, providing updated information on the disease [19]. • The Deutsche Aidshilfe, an umbrella organisation of around 120 organisations in Germany representing the interests of people living with HIV/AIDS, has set up a webpage with a summary of key facts on monkeypox and a Q&A, including links to the websites of public health authorities [20].

Channel	Example
	• In Croatia, targeted social media posts and paid ads have been used to inform MSM and related communities about monkeypox using simple language.
Leveraging the existing telephone hotlines of community-based organisations	• In Portugal, risk communication materials on monkeypox give the numbers of a telephone hotline run by GAT, a community-based organisation that works on HIV/STI testing and access to care. They also give the number of the telephone hotline service for the Portuguese health service. People can ring these numbers to receive further information on monkeypox and arrange testing and access to care.
Frequently attended locations	• In the UK [18] and Croatia, civil society organisations have been working with public health authorities to share health information and advice on monkeypox with the managers of saunas, clubs and other venues frequented by men who have sex with men.
Health clinics	• In Sweden, the Västernorrland region has provided information for clinicians on testing, diagnosis and treatment of monkeypox, in addition to information that clinics should distribute to patients, such as information leaflets designed by the Swedish infection control units [21]. • The Swedish infection control units work with the Swedish Medical Association to ensure that online translation is available for these information leaflets [22]. • In Croatia, printed information leaflets about monkeypox have been distributed in different clinical settings (community-based testing sites for MSM, PrEP clinics, HIV clinics, etc.).

Figure 1. Multilingual push messages in Grindr and Hornet applications on the monkeypox outbreak, 2022

Pleas



Adapted messages

Key messages should be adapted to the target audience and the communication channel used. Following the principles of community engagement, public health authorities should at all times strive to include civil society actors or community-based organisations in the design and adaptation of messages. Communities are often best placed to tailor a message to their members' context and language. For the purposes of mass gatherings, multilingual messages should be considered [23] .

Suggested key messages can be found in the initial risk communication advice document published by ECDC and WHO [1]. In principle they should include elements such as symptoms of monkeypox, what to do if a person suspects they have monkeypox, what to do if a person tests positive for monkeypox, and what type of treatment exists. An example of this type of document has been produced by ECDC experts in collaboration with civil society organisations: 'Navigating monkeypox: considerations for gay and bisexual men and other men who have sex with men'. This document provides tailored messages to inform MSM in Europe about monkeypox

transmission, systems, testing and self-care [24]. WHO experts have also produced public health advice for larger population groups, including those at highest risk of infection [25].

In addition, field experience has shown that combining messages on monkeypox with other public health advice which may be more familiar to the target audience (e.g. HIV prevention, harm reduction, etc.) may be a better approach for acceptance and uptake of protective measures.

Community engagement with civil society organisations

Public health authorities at national and sub-national level need to identify and actively work with relevant civil society organisations, community-based organisations and stakeholders. This will make it possible to leverage the trust that these organisations have to ensure that the affected and at-risk groups are properly informed and empowered to protect themselves from the disease. This includes communicating in relevant and culturally appropriate languages and employing the communication channels used by their members [26].

The activities for which public health authorities may work together with these organisations include:

- building an understanding of the perceptions and concerns of those affected and at risk in relation to the outbreak (through qualitative research, such as focus group discussions, intercept interviews and social listening);
- facilitating the co-design and testing of risk communication interventions and messaging;
- providing advice on the appropriate language to use;
- amplifying public health advice through trusted community champions;
- monitoring rumours and misinformation, and helping to debunk them;
- monitoring people's acceptance and adherence to protective measures.

Priority groups and examples

The following groups have been identified as priorities for community engagement, given their increased risk of exposure to monkeypox and/or possibility of more serious disease. The examples below provide community engagement strategies used with these groups during monkeypox and other outbreaks. These examples are not exhaustive, they do not reflect all activities going on in Europe at the time of publication, and are likely to change and adapt as the monkeypox situation evolves.

MSM

- A coalition of civil society organisations active on sexual health issues, healthcare providers and the UK Health Security Agency have worked together to communicate to and engage with gay, bisexual and other men who have sex with men. Actions have included:
  - jointly branded webcasts on monkeypox between UK HSA and PrEPster/The Love Tank, civil society organisations working on sexual health issues with men who have sex with men;
  - a social media video clip of a UK HSA expert who is also a gay man talking about monkeypox and its symptoms;
  - outreach in relation to monkeypox to the managers of saunas, clubs and other venues frequented by MSM;
  - development of guidance on cleaning and disinfection relating to monkeypox, aimed at SOPVs;
  - communication and outreach on social media, including on dating/hook-up apps such as Grindr.
- Online communication campaigns (websites and social media channels) relating to monkeypox by existing HIV/sexual health campaigns (Ireland, Portugal, UK), civil society organisations (Croatia, Lithuania) and Pride organisations (Baltic Pride).

- Putting up posters about monkeypox with links to online campaigns in bars and SOPVs (Ireland) and at face height above urinals at festivals (UK).
- Giving out printed information leaflets about monkeypox at venues frequented by MSM, such as nightclubs and saunas (Croatia).
- In Portugal, the Direção-Geral da Saúde/Directorate-General of Health (DGS) has been working with the civil society organisation Grupo de Ativistas em Tratamentos (GAT) that deals with HIV/STI testing and access to care. The objective was to find pragmatic and feasible prevention measures and information, addressing the need to target those groups most at risk (namely MSM), without stigmatising or blaming. To better disseminate existing advice developed by DGS and based on ECDC and WHO Regional Office for Europe's joint RCCE publication, GAT and DGS held online sessions with community-based organisations. The collaboration also resulted in specific strategies for two mass gatherings in Lisbon (Marcha do Orgulho LGBTI+ and Arraial Lisboa Pride). Materials were designed by GAT, and a plan was developed for the distribution of information materials. Furthermore, it was decided to set up HIV/STI testing in mobile units, during which specific advice on monkeypox prevention, symptoms, and where to get tested, could be given out. The information material was a small, pocket-sized bilingual (Portuguese and English) card, designed by GAT, with an image intended not to alarm, calling attention to symptoms (bumpy cucumber). The card described essential information (symptoms, what to do if having symptoms, who to call for support (a GAT helpline and the number of the Portuguese national health service number (SNS 24)).
- The public health authorities and civil society organisations in Ireland have worked together closely for many years on prevention and treatment of HIV, viral hepatitis and sexual health issues. Two important platforms to communicate and engage with gay, bisexual and other men who have sex with men (gbMSM) in Ireland on health issues are: www.man2man.ie which is administered jointly by the Gay Health Network CSO and Ireland's health authority, the Health Service Executive (HSE); and the MPOWER Programme (mpower.hivireland.ie) which is run by the civil society organisation HIV Ireland, but also has a strong working relationship with the HSE. In May 2022, when the first case of monkeypox was identified in Ireland, these platforms collaborated and worked with HSE on a joint RCCE campaign concerning the new disease. Key actions have included:
  - Community leaders' briefings, bringing together LGBT+ CSOs, sexual health organisations, venue managers and Pride/LGBT+ event organisers. These have been opportunities to foster collaboration and co-create joint actions, as well as to raise awareness about monkeypox and how to prevent it.
  - Co-creation of messages and materials between civil society organisations and health authorities, so that messages are understandable and actionable without being stigmatising.
  - Advertising on gbMSM media platforms and via dating apps.
  - Community outreach at venues and events (**Figure 2A**).
  - Putting up posters about monkeypox in LGBT+ venues, including in SOPVs (**Figure 2B**).
  - Providing information to drag queens/comperes at LGBT+ venues so they can communicate with their audience on monkeypox.
  - Video clips about monkeypox played on large screens at the Dublin Pride events on 24–26 June 2022 and regular stage announcements.
  - The Dublin Pride event will be followed by a virtual town hall meeting with community members co-organised by MPOWER, to gauge the impact of the campaign, update attendees on the current situation and encourage further health-seeking behaviour.

Figure 2. Examples of outreach

Figure 2A Outreach workers at an LGBT+ venue in Ireland distributing flyers on monkeypox.
Figure 2B. Posters about monkeypox in toilets at an LGBT+ venue in Ireland.

A B

Photo credit: MPOWER, Ireland.

Sex workers

- Existing sex worker organisations and networks can facilitate access to this population and the implementation of appropriate prevention messaging and contact tracing strategies. During COVID-19, the Deutsche Aidshilfe, a German NGO, provided recommendations on COVID-19 prevention for sex workers [27]. Similarly, the state of Queensland in Australia designed guidelines on COVID-19 prevention and control with sex workers and sex worker businesses [28]. The document served as a checklist for businesses and individual sex workers to reduce the risk of transmission, screen clients for potential infection and provide support for contact tracing.

Healthcare workers

- Infection prevention and control guidance, and testing and management guidelines addressing healthcare professionals have been developed by many public health authorities including WHO [29], UK HSA [30], and the US Centers for Disease Control and Prevention [31] .

Immunocompromised people, pregnant women, and children

- In France, during COVID-19 the national public health authority, Santé Publique France, worked with the network of Centres for Information, Testing, and Diagnosis (CeGIDD) across France to communicate on the potential risks faced by immunocompromised people, how to reduce these risks and prevent transmission. The CeGIDD, in turn, mapped and engaged civil society and associations working on HIV to adapt their testing, and support strategies (access to food, mental health support related to isolation, etc.) to the realities faced by people living with HIV (PLHIV) during COVID-19 [32]. In this way, adapted solutions to prevention, testing, and treatment were developed together with civil society and groups supporting PLHIV, in collaboration with public health authorities.
- The European AIDS Clinical Society (EACS) [33] and the British HIV Association [34] have both issued statements about monkeypox to guide clinicians caring for and people living with HIV. Both organisations indicated that people who are not virally suppressed are more likely to need specialist review and be at higher risk of severe outcomes if they contract monkeypox.

Stigmatisation

The following presents strategies that can be used to prevent and counter stigmatisation.

- Use respectful and inclusive language: to stress that monkeypox is not a disease linked to sexual orientation. For example, ECDC and WHO Regional Office for Europe are working with civil society actors representing affected groups to design their guidance for men who have sex with men, and with event organisers. These civil society representatives are asked to review messaging to ensure it is respectful towards and inclusive of the affected groups.
- Monitor public perceptions of MSM. For example, WHO Regional Office for Europe has a social listening team that is monitoring trends related to the perception of MSM in the broader population with regard to monkeypox, general sentiment, and the spread of mis and disinformation. This monitoring informs public health authorities on what mis or disinformation may need to be debunked, and what risk communication messages may need to be enforced.
- Concentrate most of the RCCE activities on channels and outreach activities that specifically target the most affected community group (currently MSM).

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Vaccination Report – 5 July 2022

1. Vaccine Implementation

- WHO's Emergency Use Listing(EUL) Vaccines (Last Updated 26 May 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
11	CanSinoBIO (China)	Ad5-nCoV	NMPA	Non ReplicatingViral vector

- **40** 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	4	7	11	16	1	1	**40**

Source: https://covid19.trackvaccines.org/vaccines/ （Last Updated 1 July 2022）

- Vaccination against COVID-19 has now started in **218** locations

(Source: Our World in Data. Last Updated 4 July 2022)

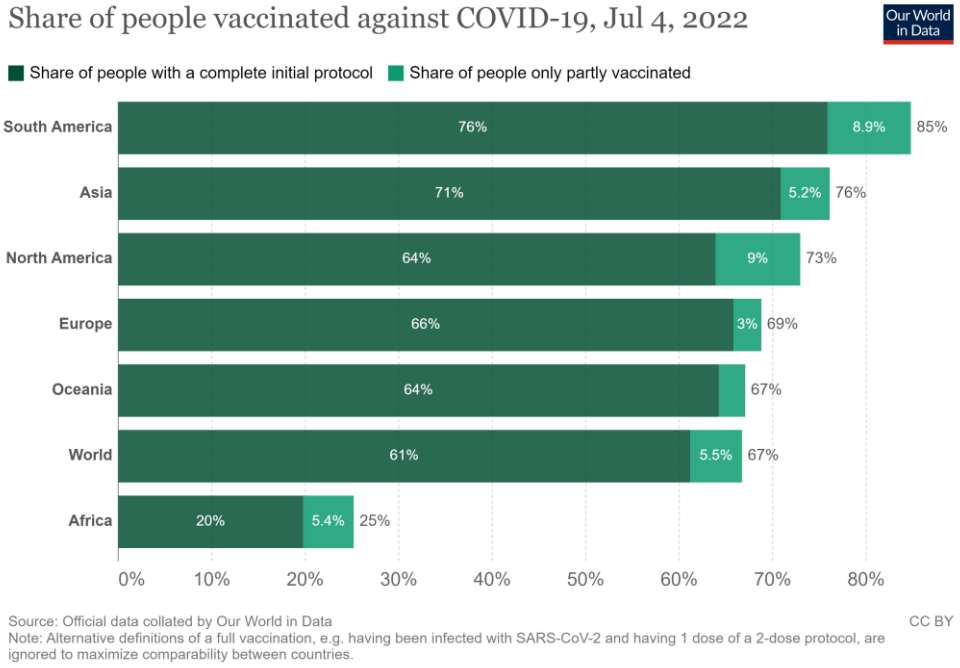
Location	Doses Given	Complete Initial Protocol (% of population)	Partly Vaccinated (% of population)
Worldwide	12.12 billion	4.82 billion (61.20 %)	5.25 billion (66.72 %)

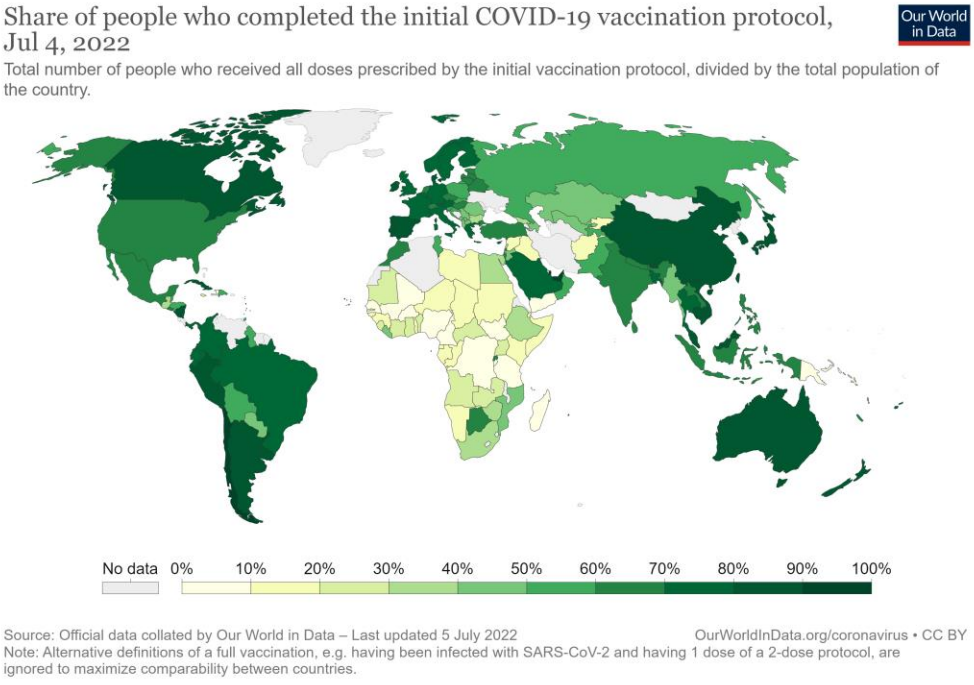
About this data:

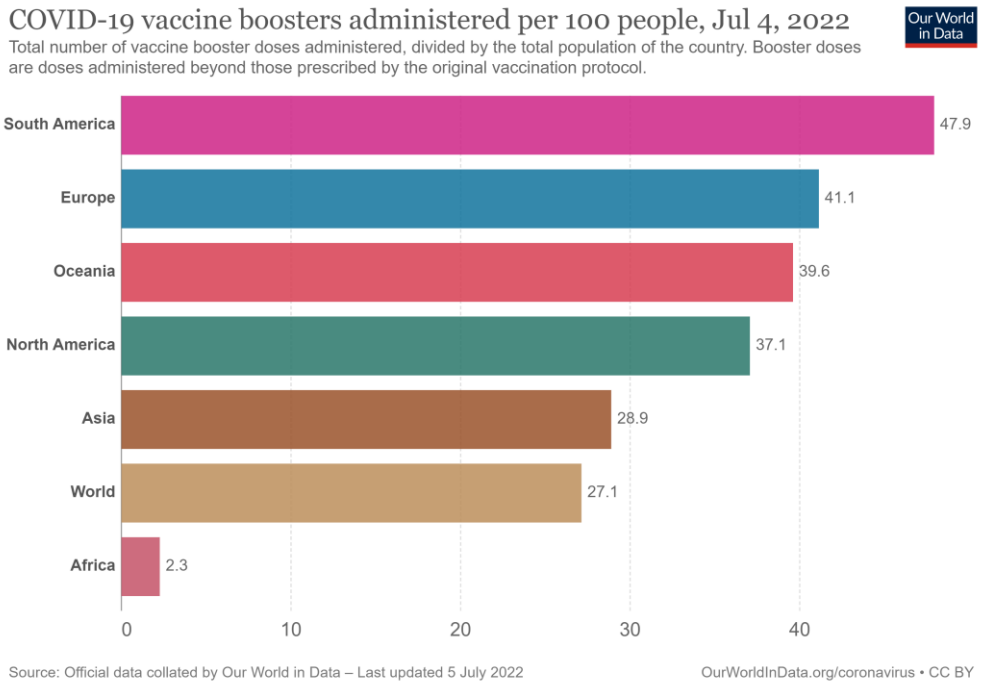
a: This data changes rapidly and might not reflect doses still being reported. It may differ from other sites & sources.

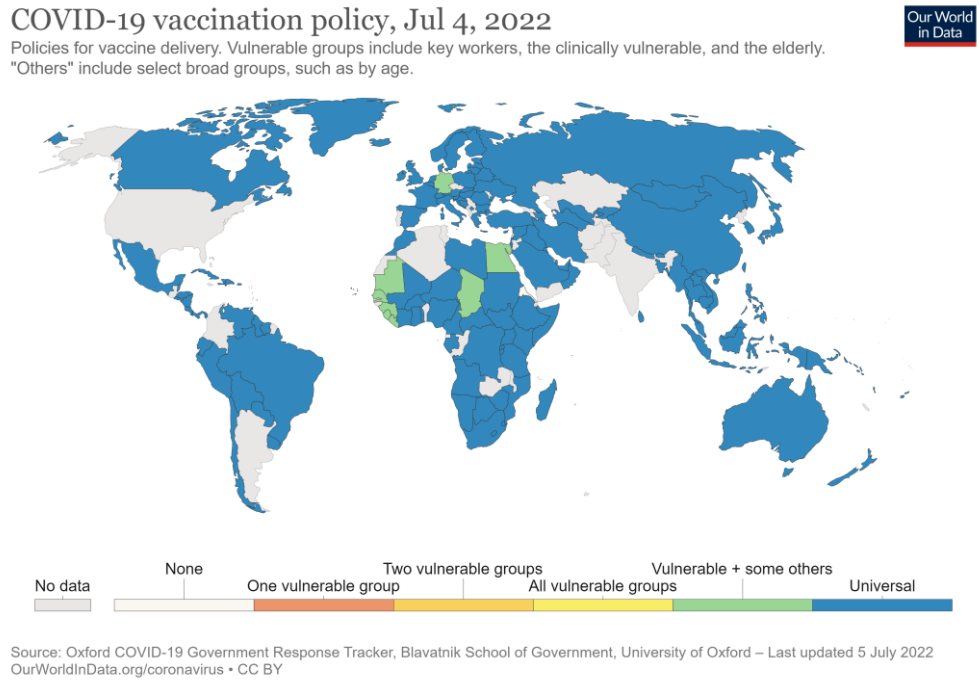
b: Where data for full vaccinations is available, it shows how many people have received at least 1 dose and how many people have been fully vaccinated (which may require more than 1 dose).Where data for full vaccinations isn't available, the data shows the total number of vaccine doses given to people.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









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]	**50%** (95% CI: 35%–62%)[8]

		93% (95% CI: 88-97%/12-18Y)[5] **93%** (95% CI: 88-97%)[7]	
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] **52.2%** (95% CI, 48.1 to 55.9)[12]
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
12) Effects of Previous Infection and Vaccination on Symptomatic Omicron Infections

3. Latest Relevant Articles

- BNT162b2 Effectiveness and Durability Against BA.1 and BA.2 Hospital and Emergency Department Admissions in a Large US Health System: A Test-Negative Design (Posted on June 30, 2022)

- Exosomes decorated with a recombinant SARS-CoV-2 receptor-binding domain as an inhalable COVID-19 vaccine (Posted on July 4, 2022)

- BNT162b2 Vaccine Effectiveness against Omicron in Children 5 to 11 Years of Age (Posted on June 29, 2022)

- Neutralization of the SARS-CoV-2 Omicron BA.4/5 and BA.2.12.1 Subvariants(Posted on June 30, 2022)

- Immunogenicity and Safety of Beta-Adjuvanted Recombinant Booster Vaccine(Posted on June 29, 2022)

4. Other Information

- CDC: COVID-19 Vaccine Provider Availability and Vaccination Coverage Among Children Aged 5–11 Years — United States, November 1, 2021–April 25, 2022 (Posted on July 1, 2022)

- Quarterly vaccination coverage statistics for children aged up to 5 years in the UK (COVER programme): January to March 2022(Published 28 June 2022)

Joint ECDC-WHO Regional Office for Europe Monkeypox Surveillance Bulletin

06 July 2022

Contents

SURVEILLANCE SUMMARY

A total of cases of monkeypox have been identified through IHR mechanisms and official public resources up to 05 July 2022, 14:00, from 33 countries and areas throughout the European region. Case- based data were reported for 5266 cases from 28 countries and areas to ECDC and the WHO Regional Office for Europe through The European Surveillance System (TESSy), up to 05 July 2022, 10:00.

Of the 5266 cases reported in TESSy, 5265 were laboratory confirmed. Furthermore, where sequencing was available, 99 were confirmed to be of the West African clade. The earliest date of symptom onset was reported as 17 April 2022. The majority of cases were between 31 and 40 years-old (2214/5258 - 42%) and male (5209/5230 - 99.6%). Among cases with known HIV status, 40% (364/917) were HIV-positive. The majority of cases presented with a rash (2684/2793 - 96.1%) and systemic symptoms such as fever, fatigue, muscle pain, vomiting, diarrhea, chills, sore throat or headache (1931/2793 - 69%). No cases were reported to have died. Some (15) cases were reported to be health workers, however further investigation is ongoing to determine whether infection was due to occupational exposure.

INTRODUCTION

PURPOSE AND SCOPE

This report provides an overview of the total number of cases of monkeypox identified by ECDC and the WHO Regional Office for Europe through IHR mechanisms and official public resources and case-based data through The European Surveillance System (TESSy) up to 05 July 2022.

The first summary table and maps (first two tabs) describe the number of cases identified through the different platforms. The following figures and tables describe national case-based data for surveillance of monkeypox reported in TESSy from all the countries and areas of the WHO European Region, including the 27 countries of the European Union (EU) and the additional three countries of the European Economic Area (EEA).

Case Report Form Data are submitted through the case-based record type MPX to The European Surveillance System (TESSy) database hosted at ECDC.

CASE DEFINITION (WHO)

As of 24 June 2022

Cases of monkeypox should be reported to TESSy if they meet any of the WHO, ECDC or national case definitions.

Confirmed case

- Laboratory confirmed monkeypox virus by detection of unique sequences of viral DNA by real-time polymerase chain reaction (PCR)[1] and/or sequencing.

Probable case:

- A person meeting the case definition for a suspected case

AND One or more of the following:

- has an epidemiological link [prolonged[2] face-to-face exposure in close proximity, including health workers without appropriate PPE (gloves, gown, eye protection and respirator); direct physical contact with skin or skin lesions, including sexual contact; or contact with contaminated materials such as clothing, bedding or utensils] to a probable or confirmed case of monkeypox in the 21 days before symptom onset;
- has had multiple or anonymous sexual partners in the 21 days before symptom onset;
- has detectable levels of anti-orthopoxvirus (OPXV) IgM antibody[3] (during the period of 4 to 56 days after rash onset); or a four-fold rise in IgG antibody titre based on acute (up to day 5-7) and convalescent (day 21 onwards) samples; in the absence of a recent smallpox/monkeypox vaccination or other known exposure to OPXV;
- has a positive test result for orthopoxviral infection (e.g. OPXV-specific PCR without MPXV-specific PCR or sequencing) [1].

Suspected case

- A person of any age presenting since 01 January 2022 with an unexplained acute rash or one or more acute skin lesions

AND one or more of the following signs or symptoms:

- headache, acute onset of fever (>38.5°C), lymphadenopathy (swollen lymph nodes), myalgia (muscle pain/body aches), back pain, asthenia (profound weakness)

AND for which the following common causes of acute rash or skin lesions do not fully explain the clinical picture:

- varicella zoster, herpes zoster, measles, herpes simplex, bacterial skin infections, disseminated gonococcus infection, primary or secondary syphilis, chancroid, lymphogranuloma venereum, granuloma inguinale, molluscum contagiosum, allergic reaction (e.g., to plants); and any other locally relevant common causes of papular or vesicular rash.

N.B. It is not necessary to obtain negative laboratory results for listed common causes of rash illness in order to classify a case as suspected. Further, if suspicion of monkeypox infection is high due to either history and/or clinical presentation or possible exposure to a case, the identification of an alternate pathogen which causes rash illness should not preclude testing for MPXV, as coinfections have been identified.

Discarded case

- A suspected or probable case for which laboratory testing of lesion fluid, skin specimens or crusts by PCR and/or sequencing is negative for MPXV[1].
- Conversely, a retrospectively detected probable case for which lesion testing can no longer be adequately performed (i.e., after the crusts fall off) and no other specimen is found PCR-positive, would remain classified as a probable case.

---

1. PCR on a blood specimen may be unreliable and should also not be used alone as a first line diagnostic test. If blood PCR is negative and was the only test done, this is not sufficient to discard a case that otherwise meets the definition of a suspected for probable case. This applies regardless of whether the blood PCR was for OPXV or MPXV specific.

2. Evidence is currently lacking as to the duration of exposure necessary for infection by the respiratory route, including how it relates to the severity of the index case's disease. Characterization of this parameter is one of the goals of the case investigation form described below

3. Serology can be used for retrospective case classification for a probable case in specific circumstances such as when diagnostic testing through PCR of skin lesion specimens has not been possible, or in the context of research with standardized data collection. The primary diagnostic test for monkeypox diagnosis is PCR of skin lesion material or other specimen such as an oral or nasopharyngeal swab as appropriate. Serology should not be used as a first line diagnostic test.

CASE DEFINITION (ECDC)

Cases of monkeypox should be reported to TESSy if they meet any of the WHO, ECDC or national case definitions.

Confirmed case :

- A person with a laboratory-confirmed monkeypox infection (1) monkeypox virus specific PCR assay positive result or (2) orthopoxvirus-specific PCR assay positive result which is then confirmed by nucleotide sequence determination of the detected virus as MPXV) with symptom onset since 1 March 2022.

Probable case :

(1) A person with an unexplained rash[1] on any part of their body AND one or more other symptom(s) of monkeypox infection[2] with symptom onset since 1 March 2022

AND one of the following:

- has a positive laboratory test result on orthopoxviral infection (e.g., orthopoxvirus-specific positive PCR without sequencing, electron microscopy, serology);
- has an epidemiological link to a confirmed or probable case of monkeypox in the 21 days before symptom onset;
- reports travel to MPX endemic countries in the 21 days before symptom onset;
- is a person (of any sexual orientation) who had multiple or anonymous sexual partners in the 21 days before symptom onset;
- is a man who has sex with men.

OR

(2) A person with an unexplained generalized or localized maculopapular or vesiculopustular rash with centrifugal spread, with lesions showing umbilication or scabbing, lymphadenopathy and one or more other MPX-compatible symptoms[2].

---

1. Since EU/EEA countries are just starting to identify cases and if testing capacity is sufficient, the above more sensitive case definition can be used. In countries with limited testing capacity for orthopoxviruses, the following description can be added to characterize the rash: 'unexplained localized or generalized maculopapular or vesiculopustular rash potentially with umbilication or scabbing'.
2. Fever (usually higher >38.5°C), headache, back ache, fatigue, lymphadenopathy (localized or generalized).

KEY INDICATORS

IHR SUMMARY

Table 1: Summary of number of cases of monkeypox identified through IHR mechanisms and official public resources and reported to TESSy, European Region, 2022

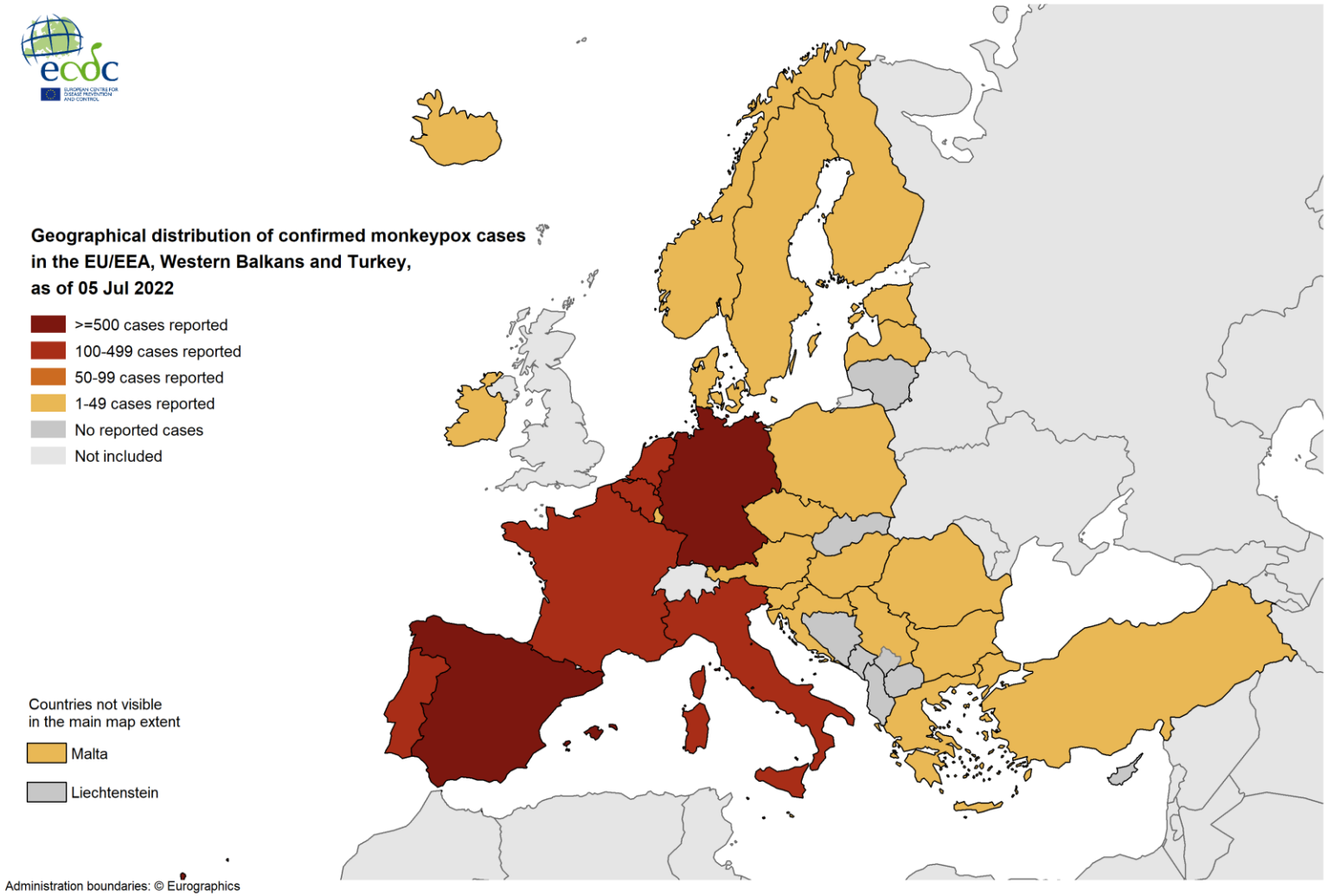
Country/Area	Number of cases identified through IHR and official public resources	Number of cases reported through TESSy
United Kingdom	1351	1228
Spain	1256	1196
Germany	1242	1242
France	498	350
Portugal	415	242
Netherlands	352	285
Italy	233	233
Belgium	169	169
Switzerland	115	82
Israel	52	0
Ireland	44	44
Austria	37	28
Sweden	28	27
Denmark	24	24
Hungary	22	22
Norway	19	19
Poland	13	13
Slovenia	12	9
Romania	12	12
Finland	10	0

Country/Area	Number of cases identified through IHR and official public resources	Number of cases reported through TESSy
Czechia	8	8
Malta	8	8
Luxembourg	7	7
Greece	6	6
Iceland	4	3
Bulgaria	3	3
Latvia	2	2
Estonia	2	2
Serbia	1	0
Georgia	1	1
Croatia	1	1
Gibraltar	1	0
Türkiye	1	0
Total	5949	5266

MAP

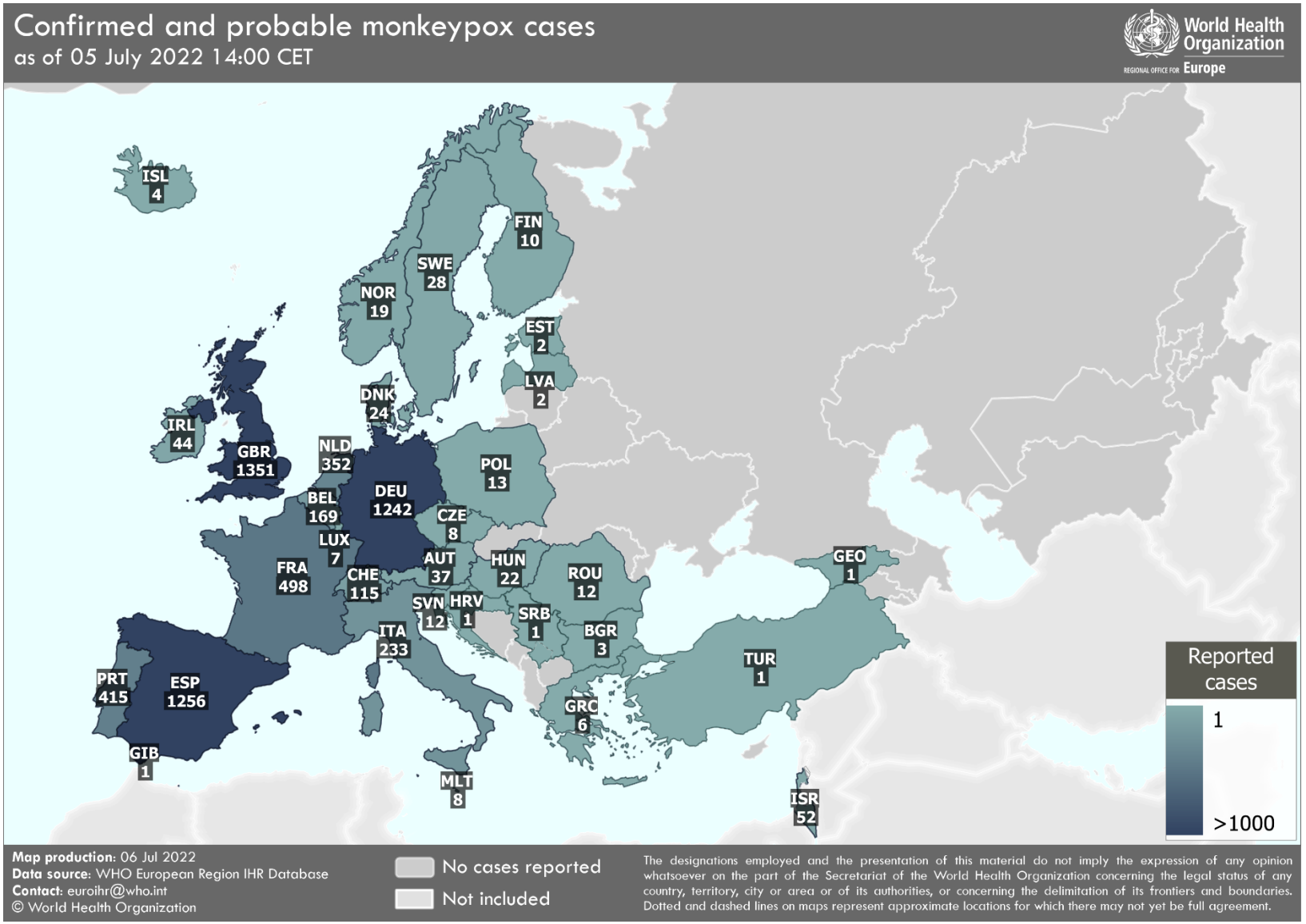
ECDC Map

Figure 1a: Distribution of cases of monkeypox, European Region, TESSy, 2022, ECDC borders



WHO-EURO Map

Figure 1b: Distribution of cases of monkeypox, European Region, TESSy, 2022, WHO EURO borders

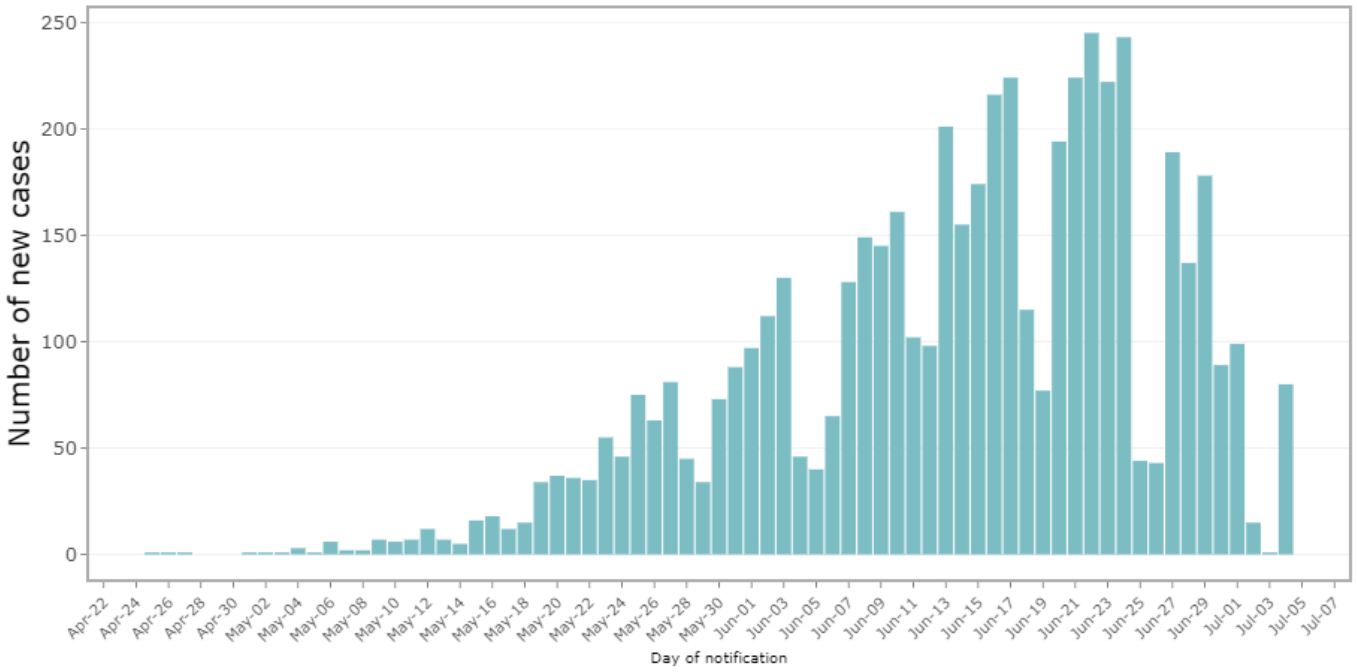


EPICURVES

Date of notification is defined as the date when the case report is notified for the first time to the place of notification, date of diagnosis is defined as the first date of clinical or laboratory diagnosis, and date of onset as the date of onset of any symptoms.

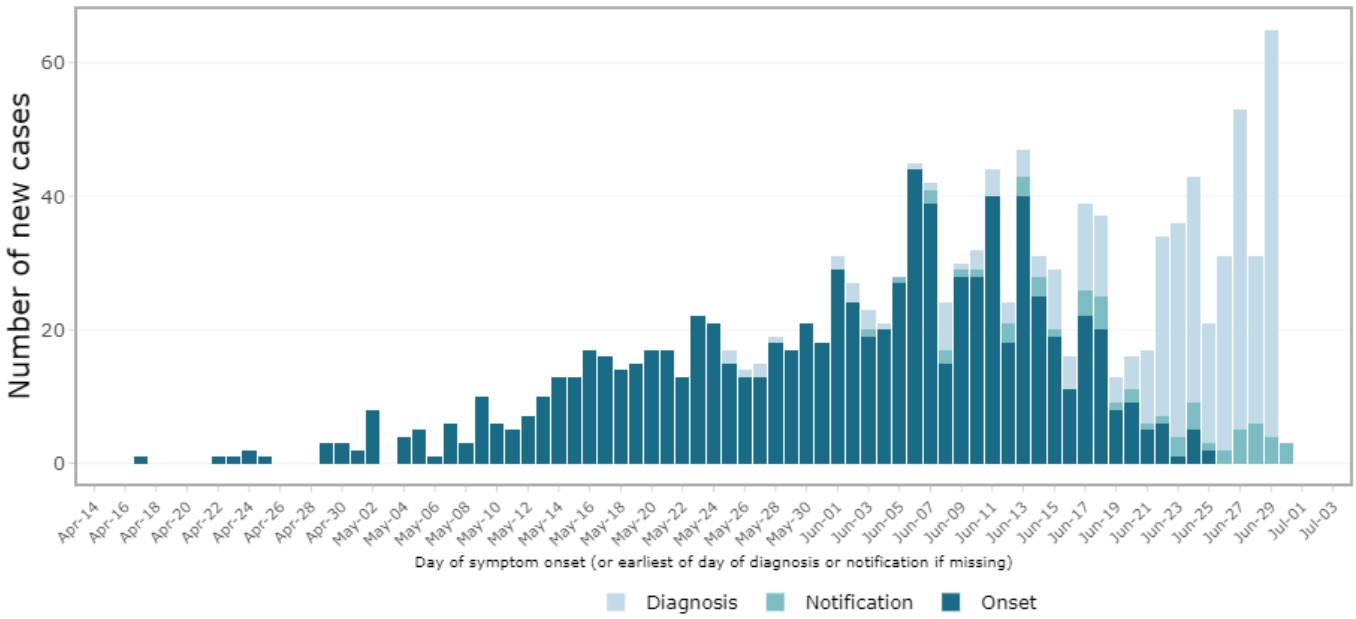
Overall by date of notification

Figure 2: Overall number of cases of monkeypox, per date of notification, European Region, TESSy, 2022



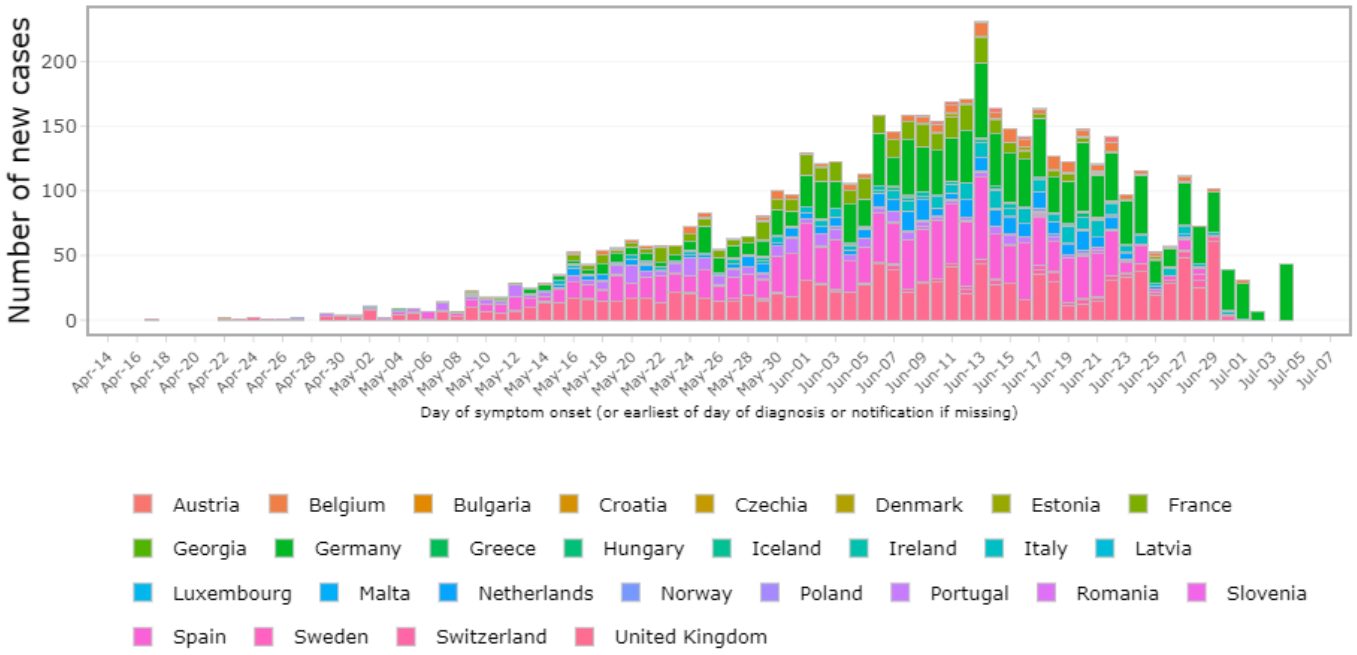
Overall by date of symptom onset

Figure 3: Overall number of cases of monkeypox, per date of symptom onset, European Region, TESSy, 2022



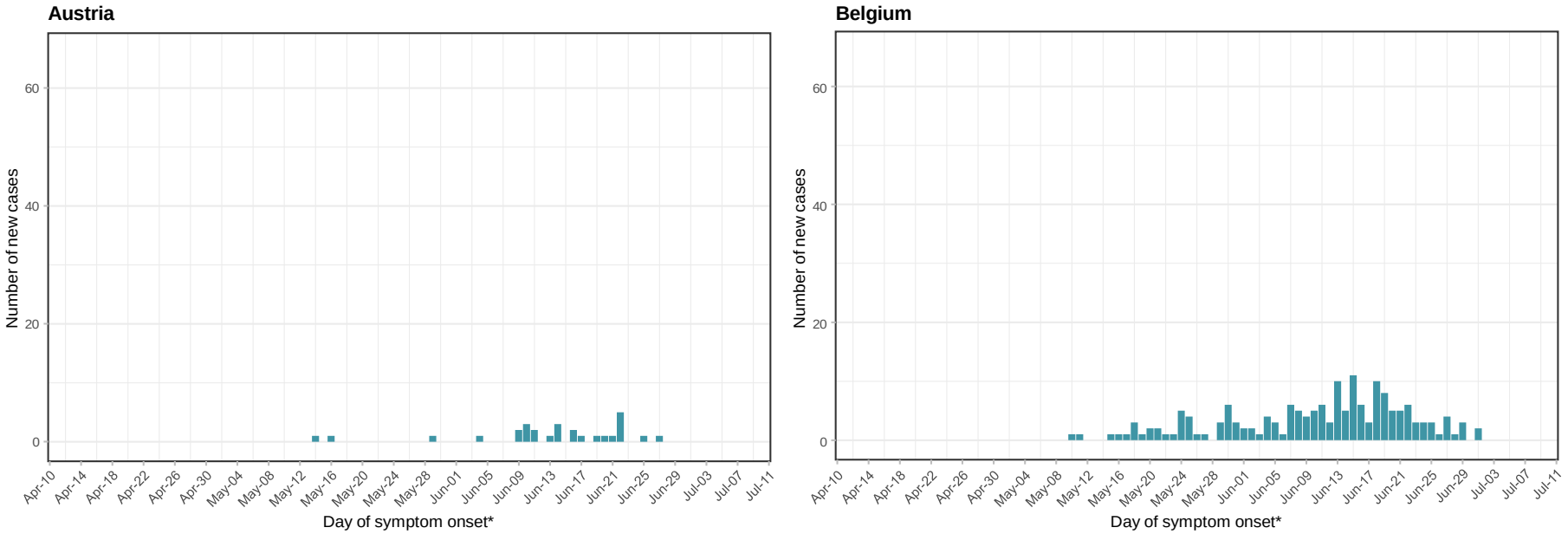
By date of onset and by country or area

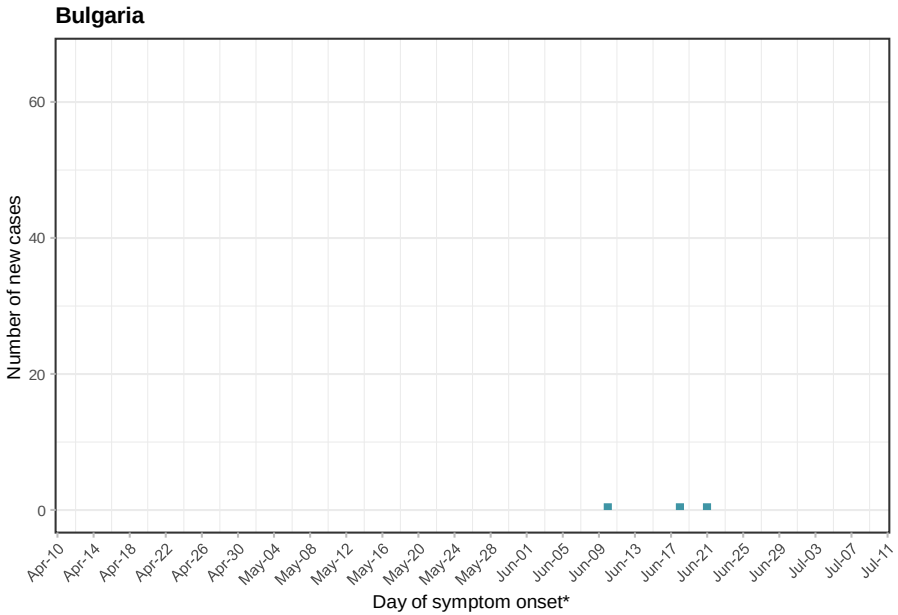
Figure 4: Number of cases of monkeypox, per day and per country/area of notification, European Region, TESSy, 2022

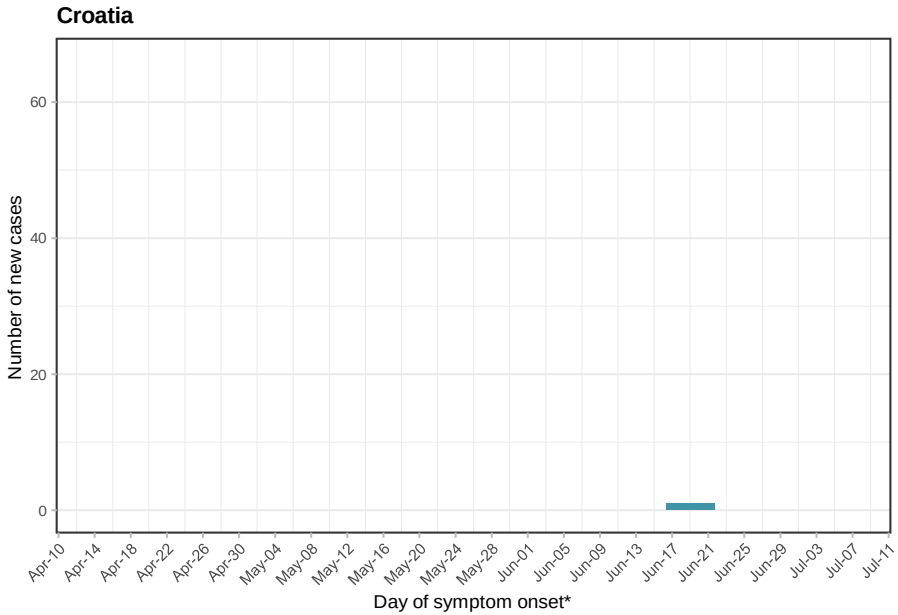


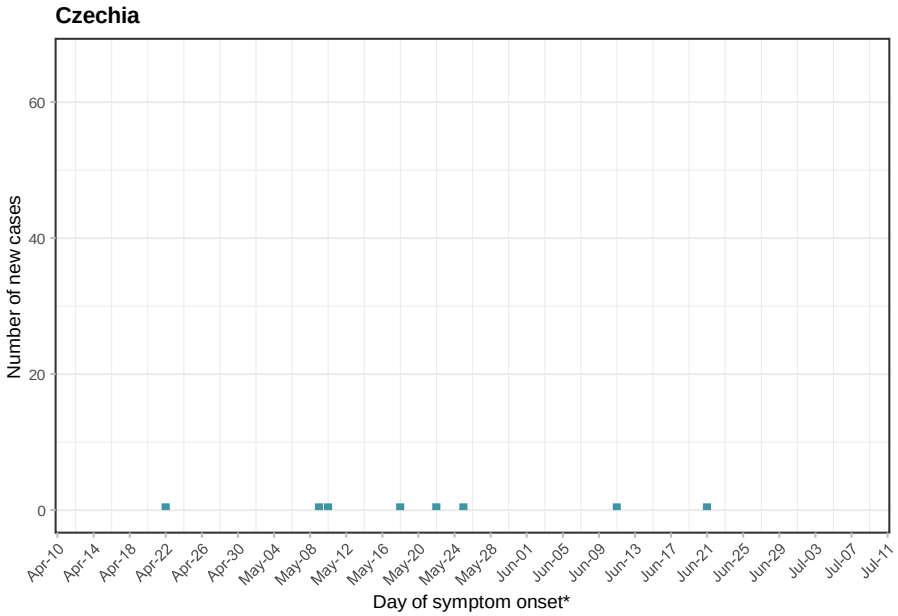
By date of onset and by country or area - country/area level

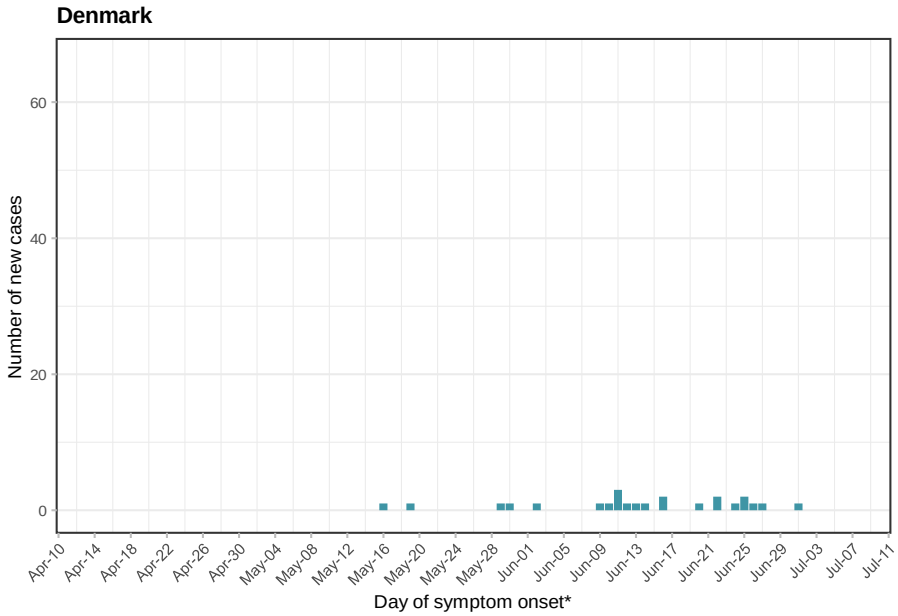
Figure 5: Number of cases of monkeypox, per day and per country/area of notification, European Region, TESSy, 2022

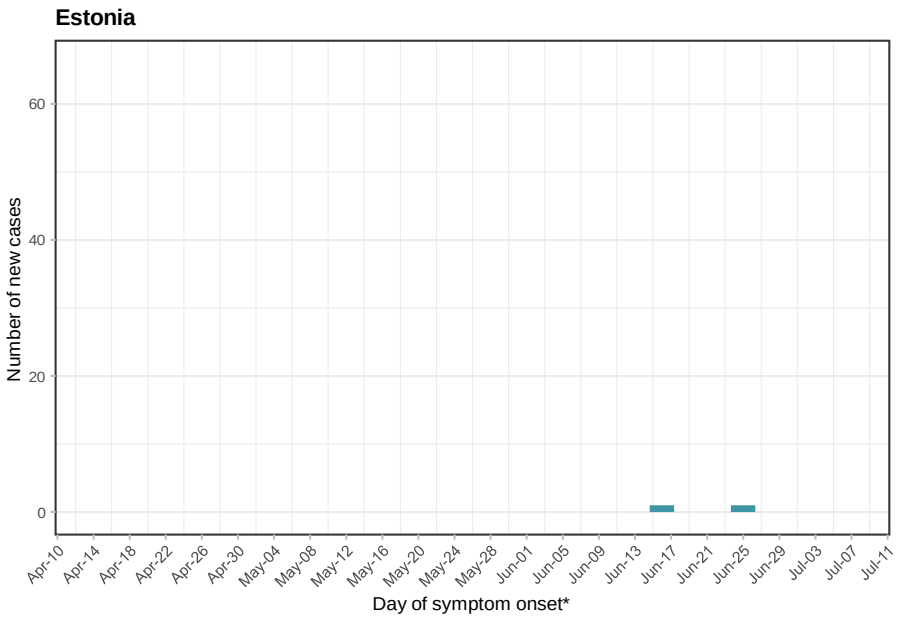


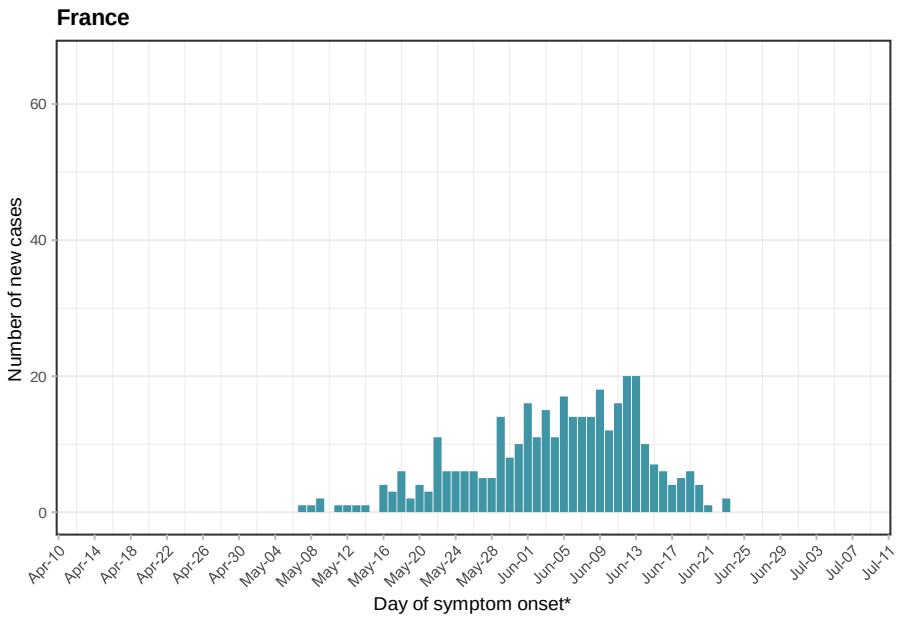

Bulgaria
Number of new cases
0
20
40
60
Apr-10
Apr-14
Apr-18
Apr-22
Apr-26
Apr-30
May-04
May-08
May-12
May-16
May-20
May-24
May-28
Jun-01
Jun-05
Jun-09
Jun-13
Jun-17
Jun-21
Jun-25
Jun-29
Jul-03
Jul-07
Jul-11
Day of symptom onset*


Croatia
Number of new cases
0
20
40
60
Apr-10
Apr-14
Apr-18
Apr-22
Apr-26
Apr-30
May-04
May-08
May-12
May-16
May-20
May-24
May-28
Jun-01
Jun-05
Jun-09
Jun-13
Jun-17
Jun-21
Jun-25
Jun-29
Jul-03
Jul-07
Jul-11
Day of symptom onset*


Czechia
Number of new cases
0
20
40
60
Apr-10
Apr-14
Apr-18
Apr-22
Apr-26
Apr-30
May-04
May-08
May-12
May-16
May-20
May-24
May-28
Jun-01
Jun-05
Jun-09
Jun-13
Jun-17
Jun-21
Jun-25
Jun-29
Jul-03
Jul-07
Jul-11
Day of symptom onset*


Denmark
Number of new cases
0
20
40
60
Apr-10
Apr-14
Apr-18
Apr-22
Apr-26
Apr-30
May-04
May-08
May-12
May-16
May-20
May-24
May-28
Jun-01
Jun-05
Jun-09
Jun-13
Jun-17
Jun-21
Jun-25
Jun-29
Jul-03
Jul-07
Jul-11
Day of symptom onset*


Estonia
Number of new cases
0
20
40
60
Apr-10
Apr-14
Apr-18
Apr-22
Apr-26
Apr-30
May-04
May-08
May-12
May-16
May-20
May-24
May-28
Jun-01
Jun-05
Jun-09
Jun-13
Jun-17
Jun-21
Jun-25
Jun-29
Jul-03
Jul-07
Jul-11
Day of symptom onset*


France
Number of new cases
0
20
40
60
Apr-10
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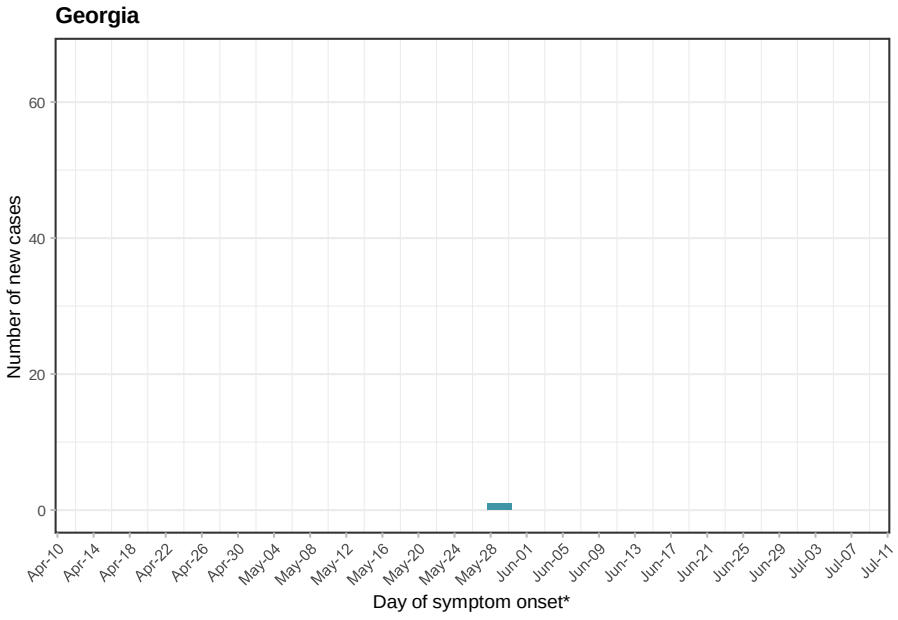
Day of symptom onset*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Number of new cases
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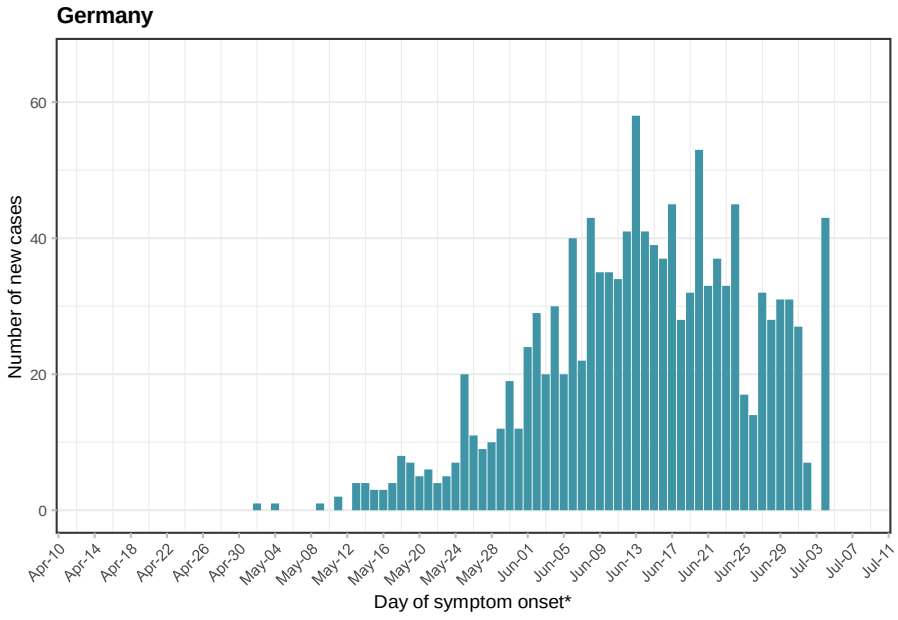
Day of symptom onset*


Germany
Number of new cases
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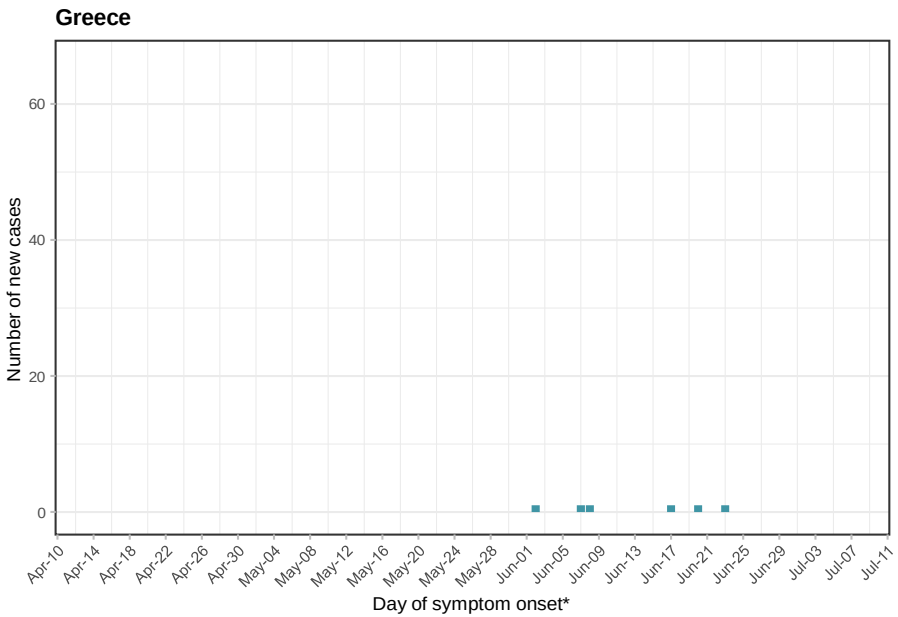
Day of symptom onset*


Greece
Number of new cases
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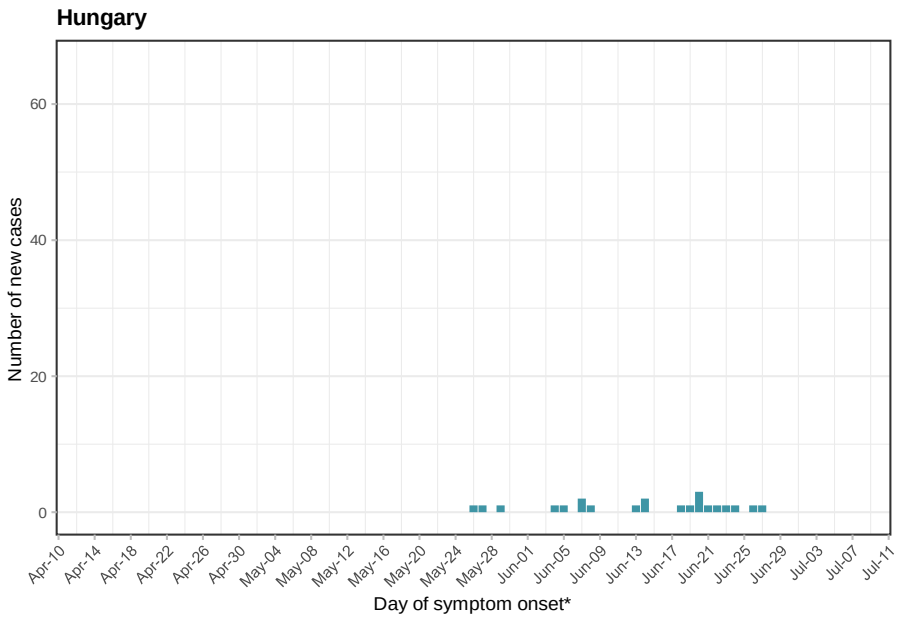
Day of symptom onset*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Number of new cases
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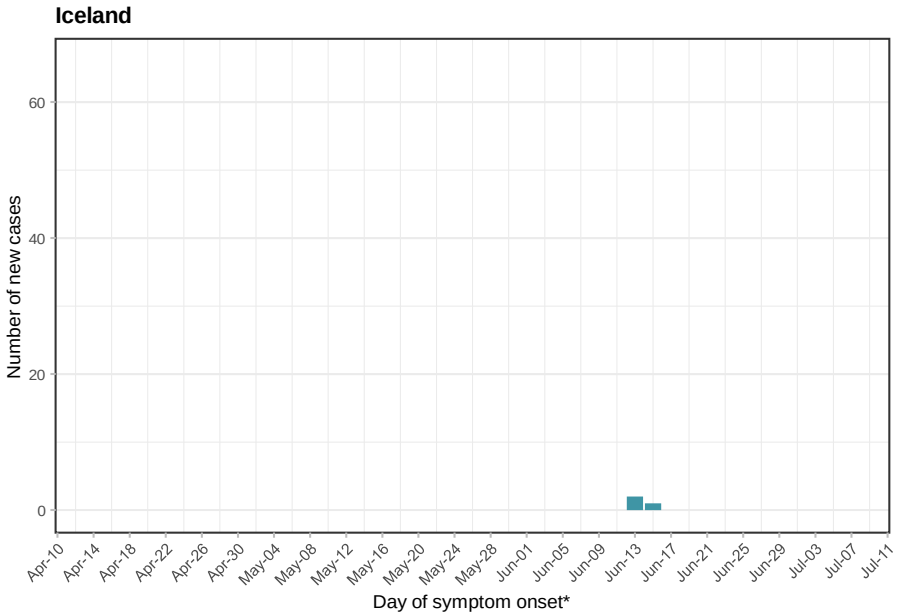
Day of symptom onset*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Number of new cases
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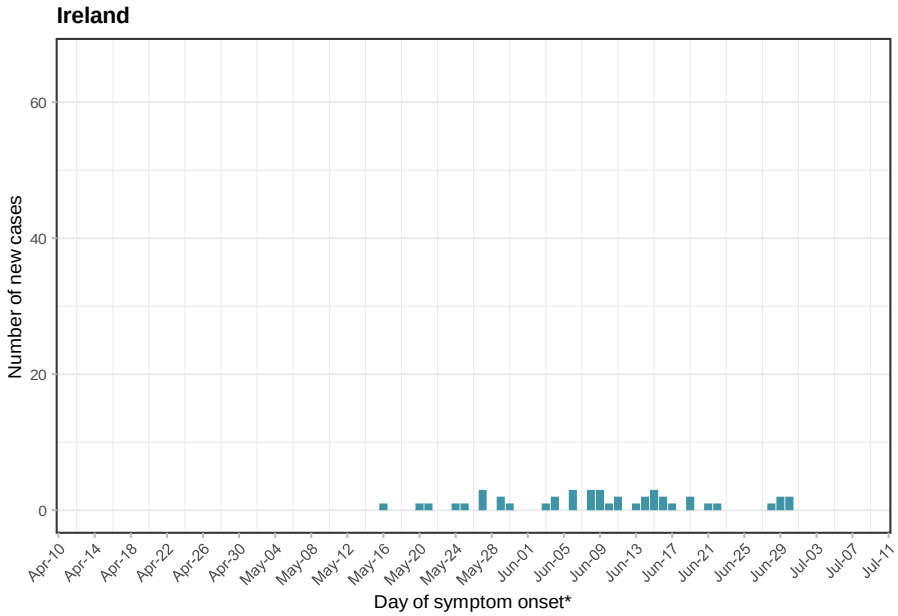
Day of symptom onset*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Number of new cases
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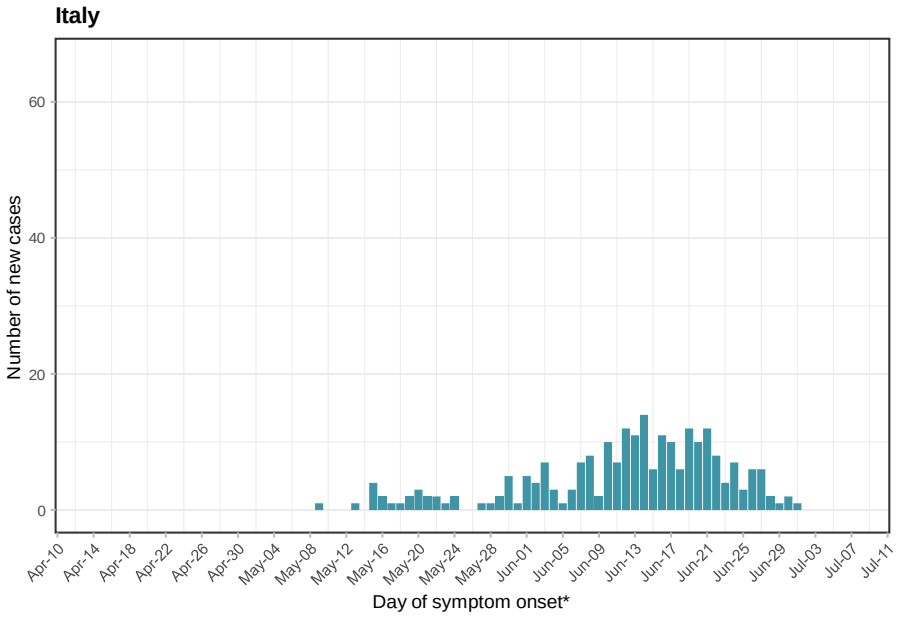
Day of symptom onset*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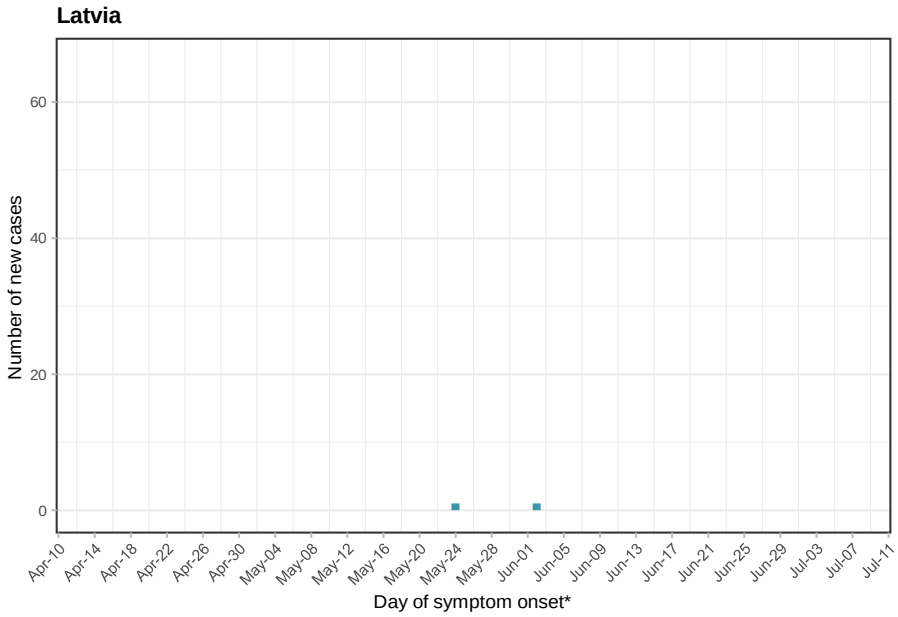
Day of symptom onset*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Number of new cases
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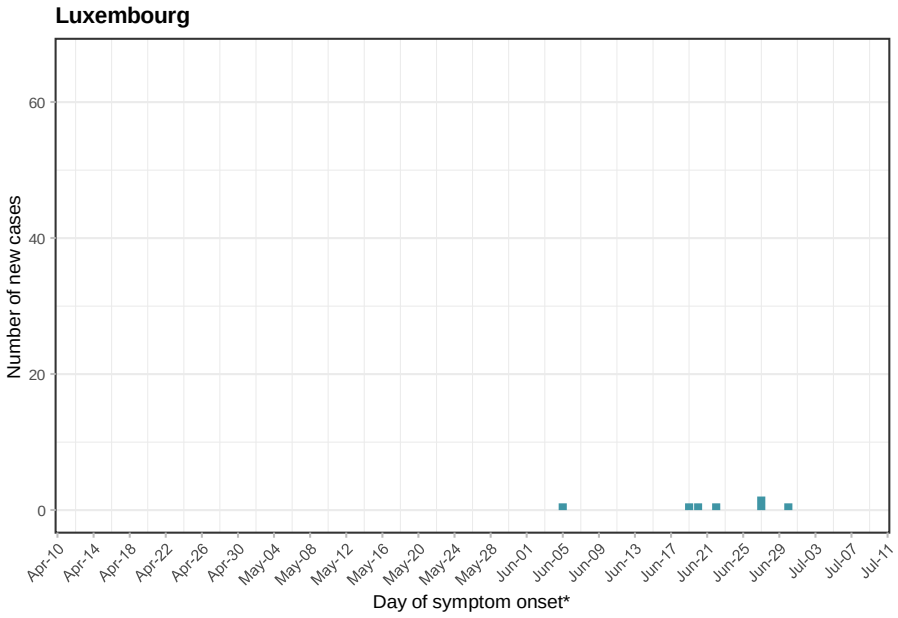
Day of symptom onset*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Number of new cases
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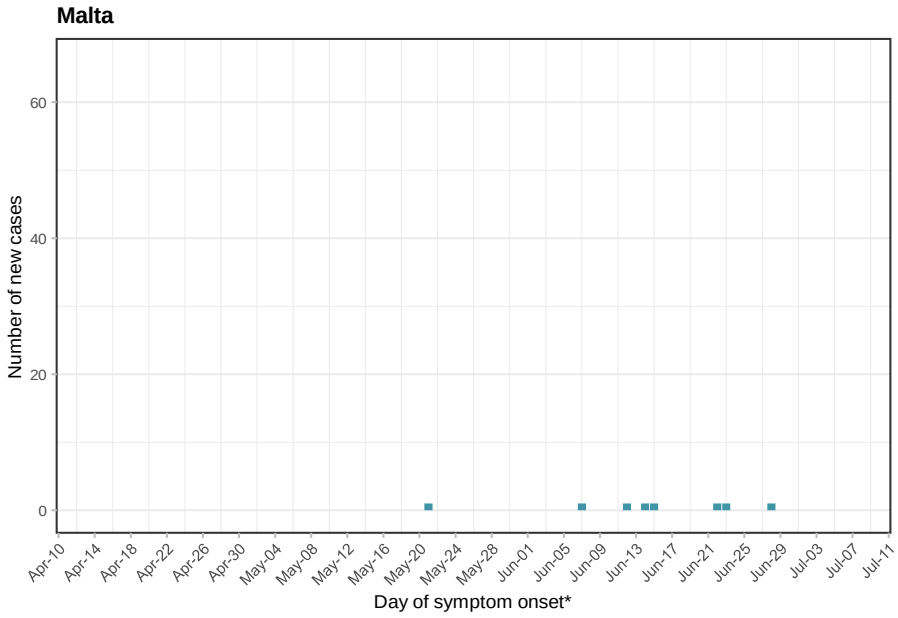
Day of symptom onset*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Number of new cases
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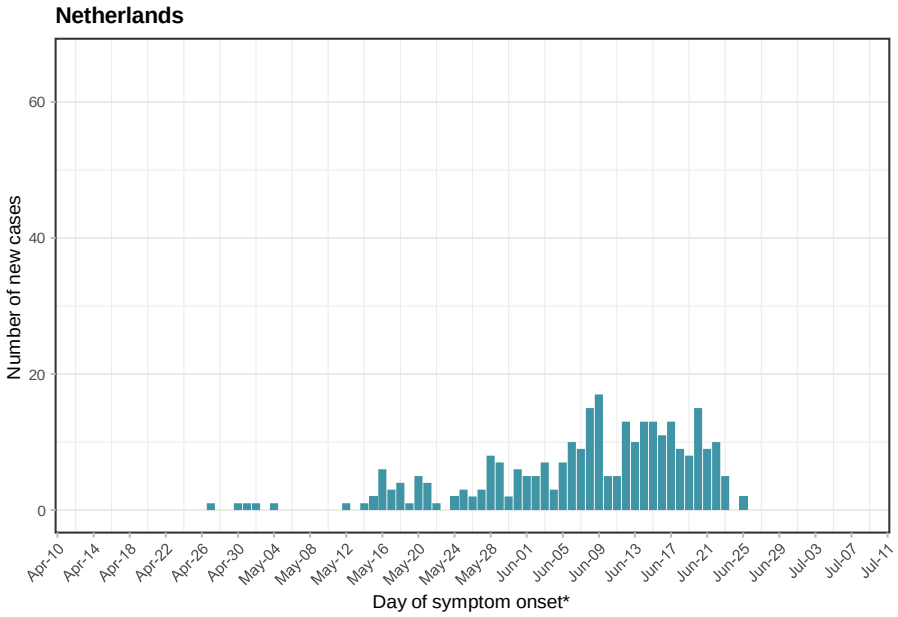
Day of symptom onset*


Netherlands
Number of new cases
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Apr-10
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May-08
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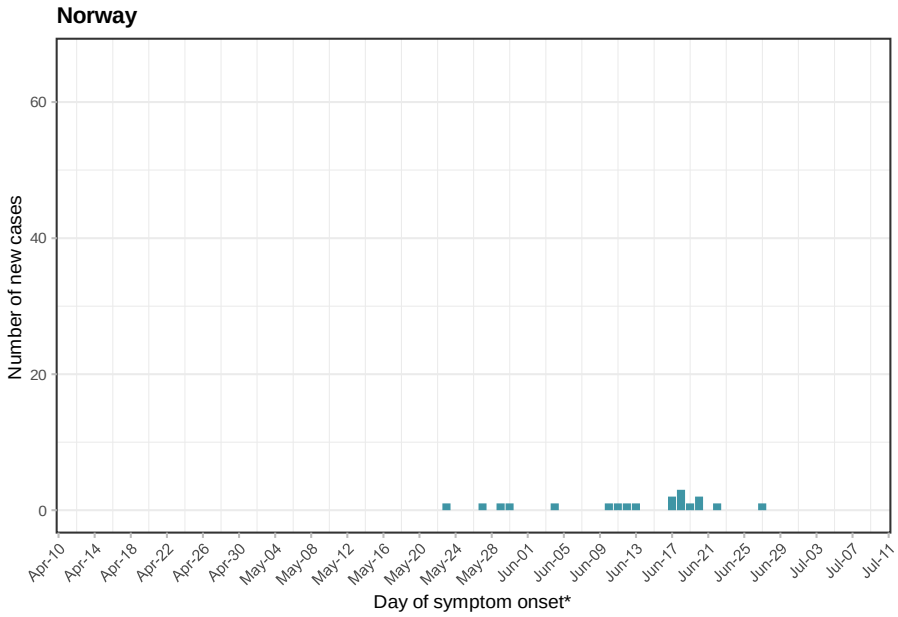
Jul-11
Day of symptom onset*


Norway
Number of new cases
0
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Jul-03
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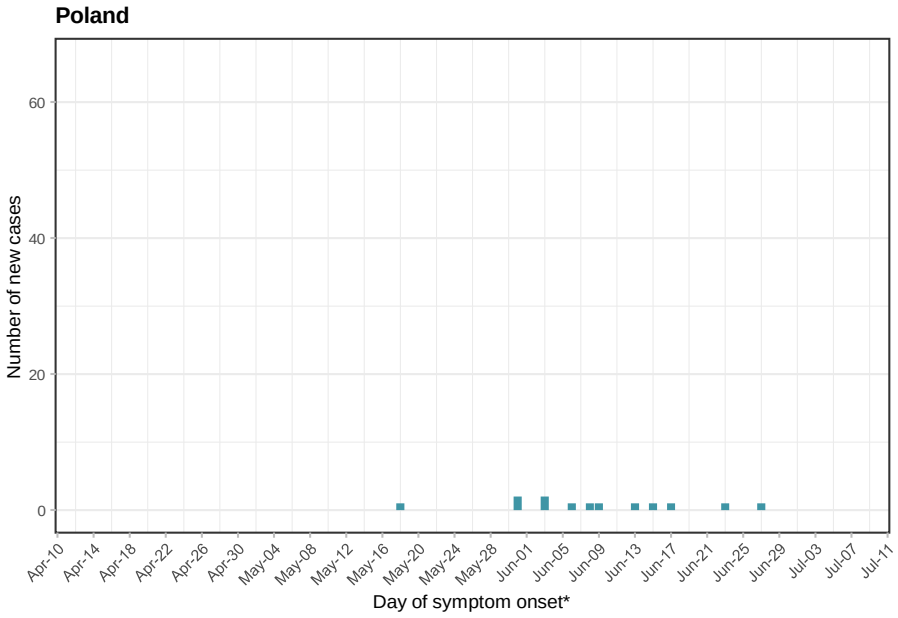
Day of symptom onset*


Poland
Number of new cases
0
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Apr-10
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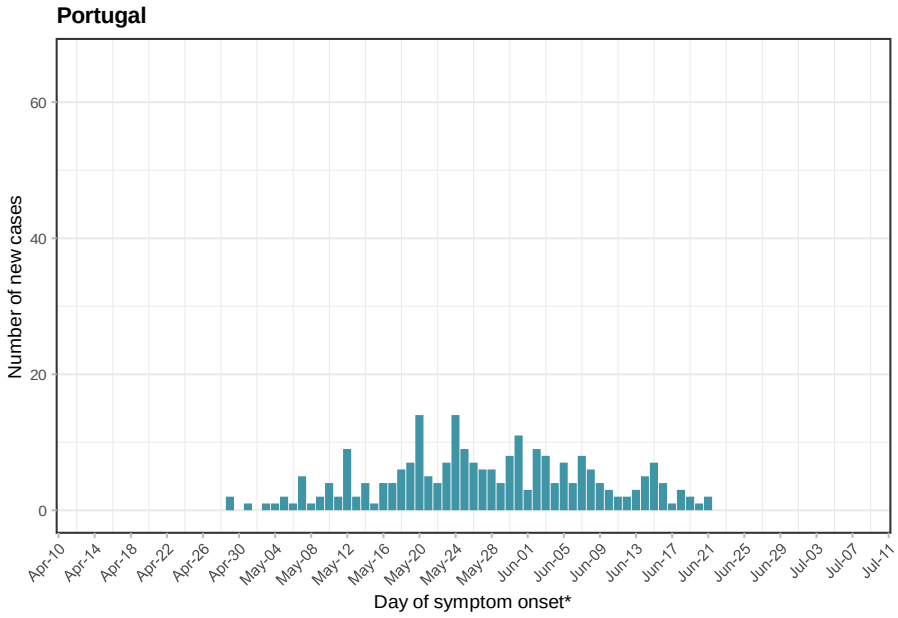
Day of symptom onset*


Portugal
Number of new cases
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20
40
60
Apr-10
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Jul-03
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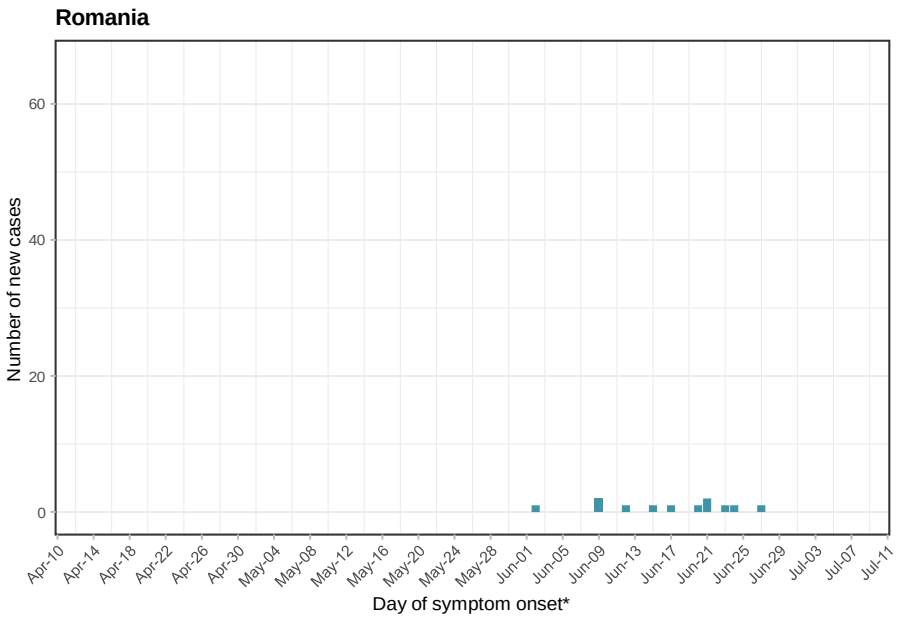
Jul-11
Day of symptom onset*


Romania
Number of new cases
0
20
40
60
Apr-10
Apr-14
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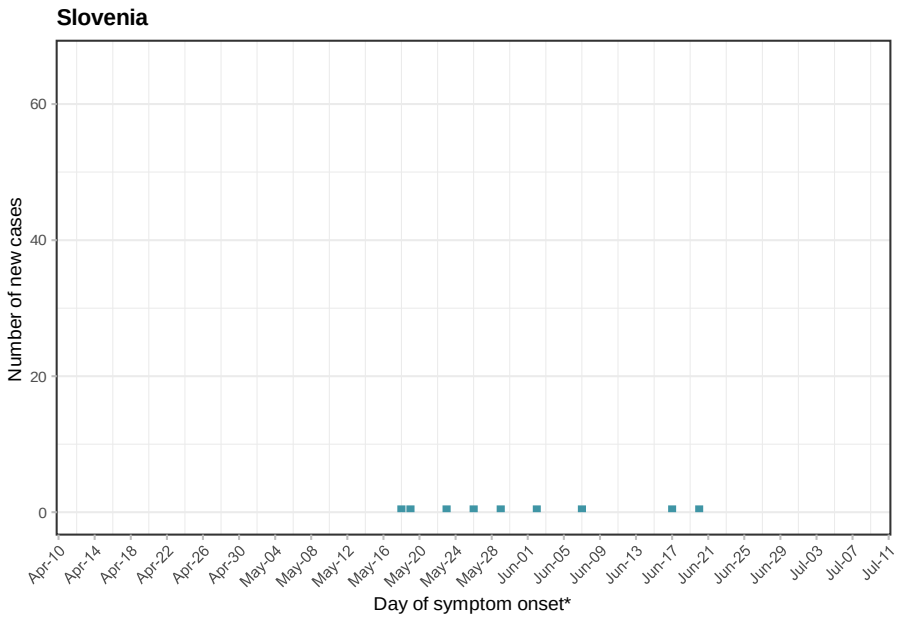
Jul-11
Day of symptom onset*


Slovenia
Number of new cases
0
20
40
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Jul-03
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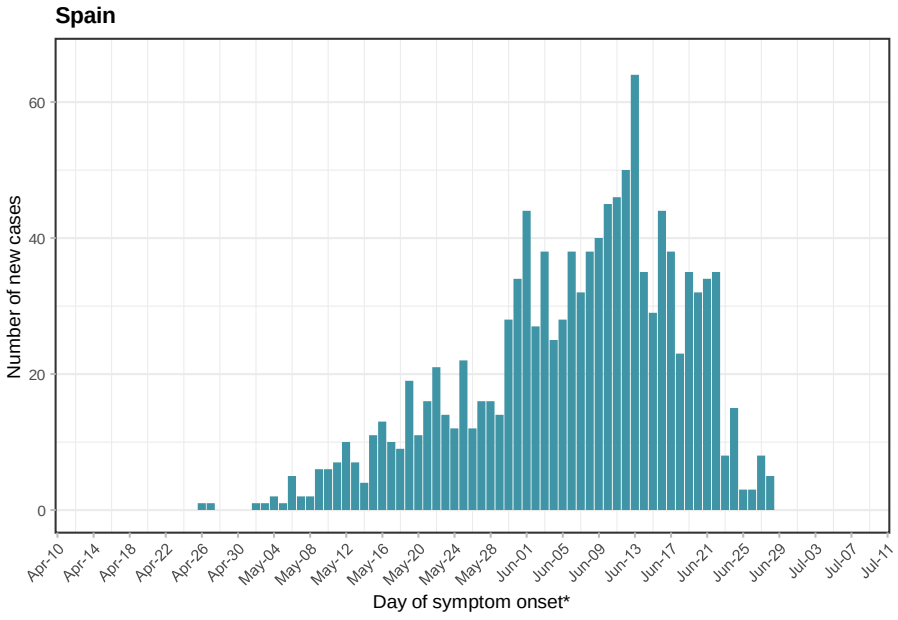
Jul-11
Day of symptom onset*


Spain
Number of new cases
0
20
40
60
Apr-10
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Apr-26
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Jul-03
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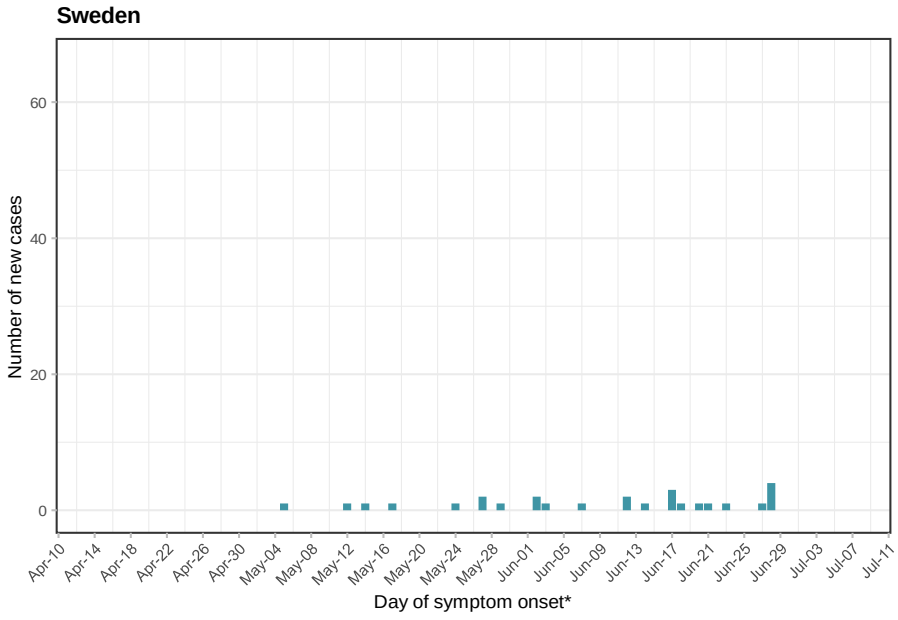
Jul-11
Day of symptom onset*


Sweden
Number of new cases
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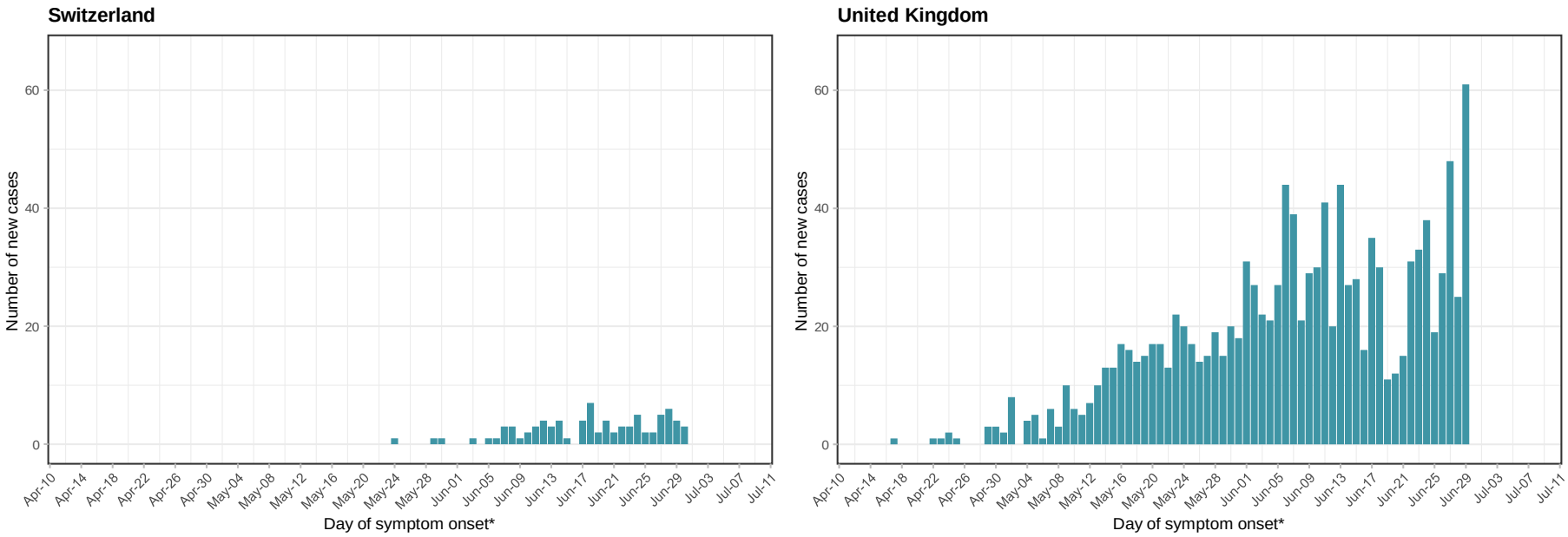
Day of symptom onset*



**Day of symptom onset or earliest of day of diagnosis or notification if missing*

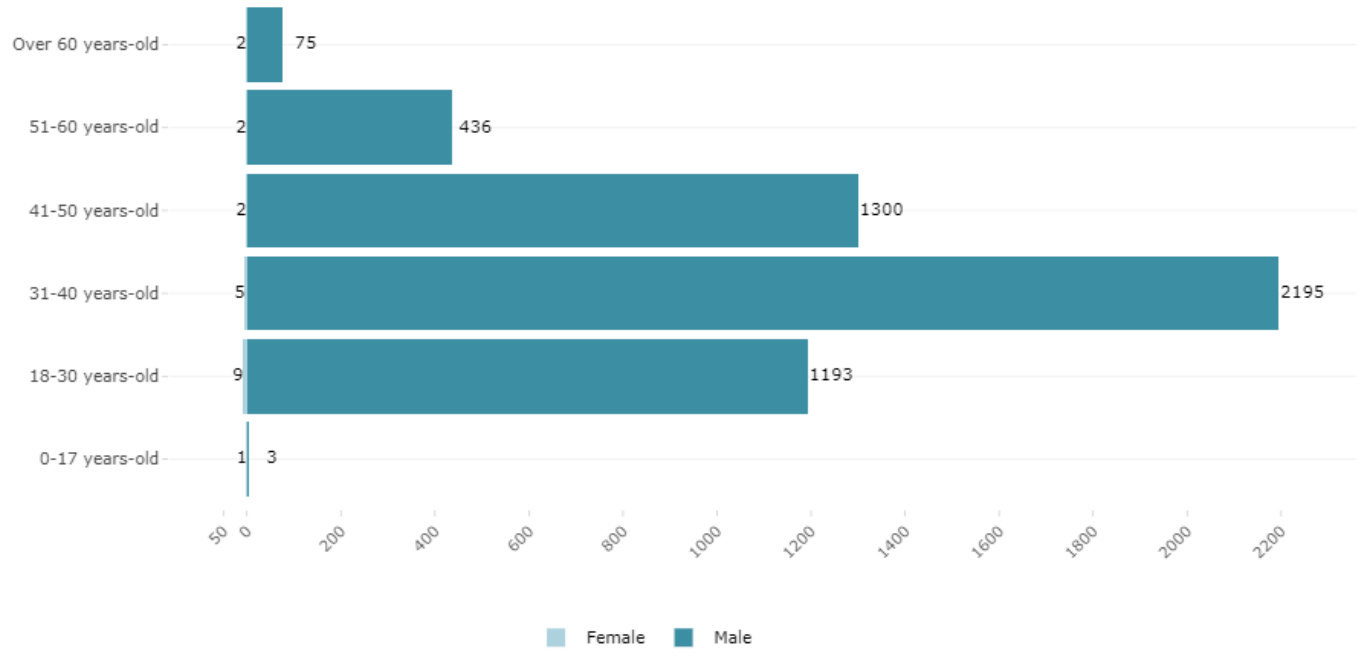
SUMMARY TABLE

Table 2: Summary of number of probable and confirmed cases of monkeypox by country/area, European Region, TESSy, 2022

Country	Confirmed cases	Probable cases	Unclassified cases	Total cases
Austria	28	0	0	28
Belgium	168	1	0	169
Bulgaria	3	0	0	3
Croatia	1	0	0	1
Czechia	8	0	0	8
Denmark	24	0	0	24
Estonia	2	0	0	2
France	350	0	0	350
Georgia	1	0	0	1
Germany	1242	0	0	1242
Greece	6	0	0	6
Hungary	22	0	0	22
Iceland	3	0	0	3
Ireland	44	0	0	44
Italy	233	0	0	233
Latvia	2	0	0	2
Luxembourg	7	0	0	7
Malta	8	0	0	8
Netherlands	285	0	0	285
Norway	19	0	0	19
Poland	13	0	0	13
Portugal	242	0	0	242
Romania	12	0	0	12
Slovenia	9	0	0	9
Spain	1196	0	0	1196
Sweden	27	0	0	27
Switzerland	82	0	0	82
United Kingdom	1228	0	0	1228
Total	5265	1	0	5266

DEMOGRAPHICS

Figure 6: Age and sex distribution of cases of monkeypox, European Region, TESSy, 2022



Information on sex is missing for 36 cases and information on age is missing for 8 cases.

CLINICAL DESCRIPTION

The average time between symptom onset and diagnosis was 7 days.

Figure 7: Distribution of symptoms among those reporting at least one type of symptom (N=2793), European Region, TESSy, 2022

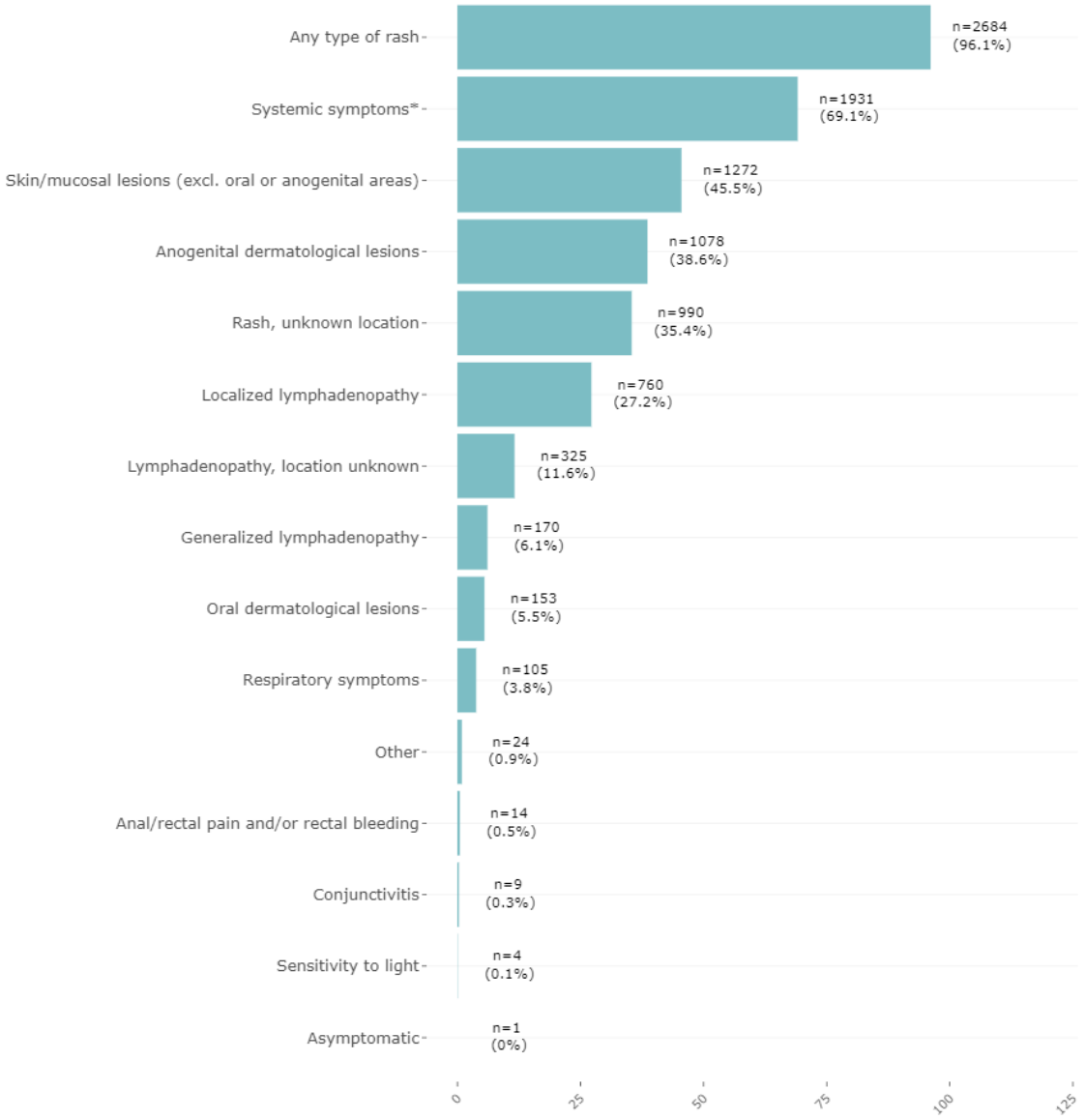


Table 3: Distribution of rash and systemic symptoms among those reporting at least one type of symptom (N=2793), European Region, TESSy, 2022

Any type of rash	Systemic Symptoms*	Count (%)
Absent	Absent	13 (0.5%)
Absent	Present	96 (3.4%)
Present	Absent	849 (30.4%)
Present	Present	1835 (65.7%)
Total	-	2793 (100%)

**Fever, fatigue, muscle pain, vomiting, diarrhea, chills, sore throat, headache*
Detection of asymptomatic cases is dependent on testing guidelines which currently do not recommend testing asymptomatic persons

OUTCOME, HIV STATUS, HCW

Table 4: Summary of outcome, HIV status of cases, and cases of monkeypox among health workers, European Region, TESSy, 2022

	Yes	No	Total
Admitted to ICU	1 (0.2%)	585 (99.8%)	586 (100%)
Hospitalized*	100 (9.9%)	913 (90.1%)	1013 (100%)
Died	0 (0.0%)	4012 (100%)	4012 (100%)
HIV-Positive	364 (39.7%)	553 (60.3%)	917 (100%)
Health worker	15 (2.2%)	666 (97.8%)	681 (100%)

**Includes cases hospitalized for isolation or treatment (19 cases were hospitalized for isolation purposes, 35 required clinical care and 46 were hospitalized for unknown reasons).*

SEXUAL ORIENTATION

Sexual orientation in TESSy is defined according to the following non-mutually exclusive categories:

- Heterosexual
- MSM = MSM/homo or bisexual male
- Women who have sex with women
- Bisexual
- Other
- Unknown or undetermined

Sexual orientation is not necessarily representative of the gender of the person the case had sex with in the past 21 days nor does it imply sexual contact and sexual transmission.

We summarize here the sexual orientation that male cases identified with. No differences were observed across age groups.

Table 5: Summary of reported sexual orientations among cases of monkeypox, European Region, TESSy, 2022

Sexual Orientation	Count (%)
MSM	1386 (26.6%)
Bisexual	14 (0.3%)
Heterosexual	12 (0.2%)
Unknown or undetermined	852 (16.4%)
Missing	2945 (56.5%)
Total	5209 (100%)

MICROBIOLOGICAL ANALYSES

SPECIMEN TYPES

Table 6: Summary of specimen types with positive test result used for diagnosis of monkeypox, European Region, TESSy, 2022

Specimen type	Count
Lesion swab	126 (46.0%)
Oropharyngeal swab	58 (21.2%)
Lesion crust	43 (15.7%)
Rectal swab	35 (12.8%)
Genital swab	11 (4.0%)
Urine	1 (0.4%)
Serum	0 (0.0%)
Semen	0 (0.0%)
Total	274 (100%)

PHYLOGENETICS

Phylogenetics of monkeypox virus

Whole genome sequences of MPXV were extracted from GISAID EpiPox and NCBI GenBank on 4 July 2022. The phylogenetic analysis was performed using ParSNP[1] with MT903344.1 as reference and visualized using Microreact[2]. Further analysis was performed using NextClade information[3] to verify the quality of any highly divergent sequences.

Figure 8A shows the two genetically distinct major clades described for MPXV, the Central African (Congo Basin) and West African clades.

The 2022 MPXV sequences from Europe are part of a distinct cluster within the West African clade (*Figure 8B*) and cluster together with 2022 MPXV sequences from Australia, Brazil, Canada, Mexico, Peru, South Africa, and the US. Sequences from 2022 are indicated with coloured circles and the binary heatmap shows new sequences uploaded to sequence databases after 27 June 2022. Two 2022 sequences from the US do not cluster with the other outbreak sequences. Available information indicate that these are sporadic cases not linked to the current outbreak.

Limited sampling and sequencing of MPXV over the past years make it difficult to generate a hypothesis on the source of introduction for this outbreak at the moment.

Figure 8A. Phylogenetic tree of monkeypox virus sequences as of 04 July 2022.

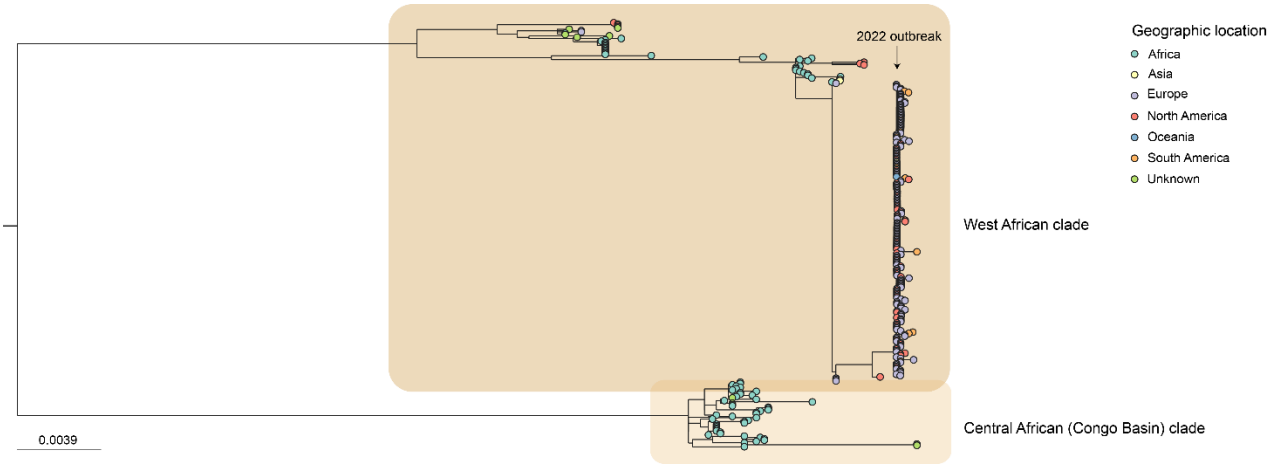
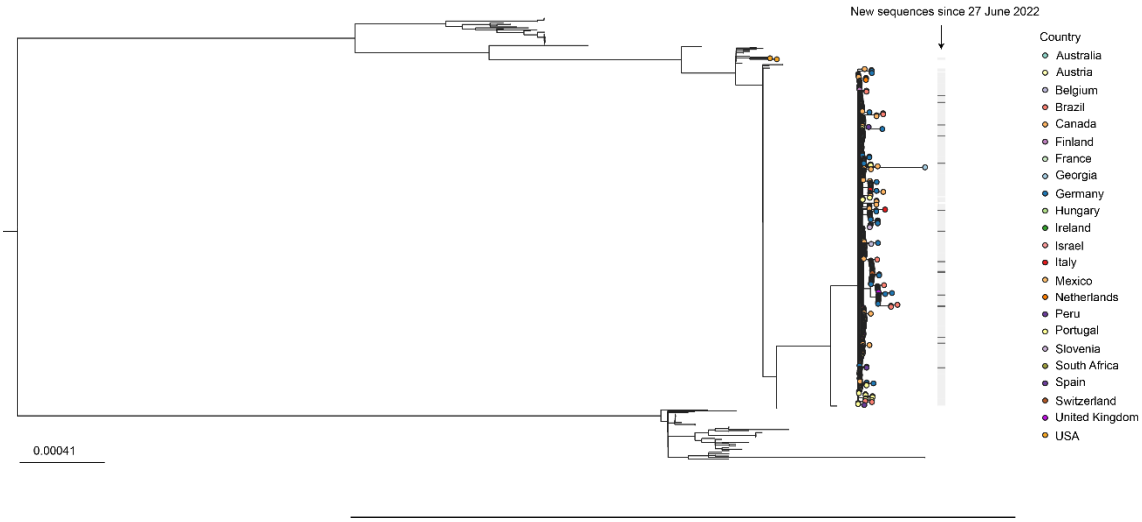


Figure 8B. Phylogenetic tree of monkeypox virus sequences from West African clade as of 04 July 2022.



1. Treangen TJ, Ondov BD, Koren S, Phillippy AM. The Harvest suite for rapid core-genome alignment and visualization of thousands of intraspecific microbial genomes. Genome Biology. 2014;15(524). Available at: https://genomebiology.biomedcentral.com/articles/10.1186/s13059-014-0524-x

2. Argimón S, et al. Microreact: visualizing and sharing data for genomic epidemiology and phylogeography. Microbial Genomics. 2016;2(11). Available at: https://www.microbiologyresearch. org/content/journal/mgen/10.1099/mgen.0.000093

3. Aksamentov, I., Roemer, C., Hodcroft, E. B., & Neher, R. A., (2021). Nextclade: clade assignment, mutation calling and quality control for viral genomes. Journal of Open Source Software, 6(67), 3773, https://doi.org/10.21105/joss.03773

DISCLAIMERS AND ACKNOWLEDGMENTS

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Users are advised to interpret all data with caution and be aware of their limitations. Case counts and their corresponding data may have weekly updates that include historical corrections as new information is collected and reported.

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