



# Update 87 COVID-19 Coronavirus Disease 13 October 2021



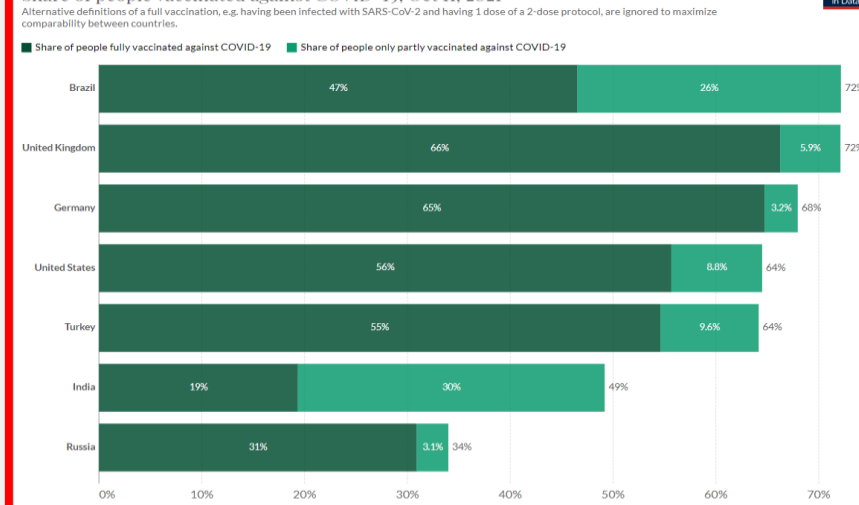
## News:

- **WHO:** report [highlights global shortfall in investment in mental health](#)
- **WHO:** Published The [WHO COP26 Special Report on Climate Change and Health](#) *Special Report on Climate Change and Health*, announcing that Countries must set ambitious national climate commitments if they are to sustain a healthy and green recovery from the COVID-19 pandemic.
- **WHO:** is [recommending widespread use of the RTS,S/AS01 \(RTS,S\) malaria vaccine among children](#) in sub-Saharan Africa and in other regions with moderate to high *P. falciparum* malaria transmission. The recommendation is based on results from an ongoing pilot programme in Ghana, Kenya and Malawi that has reached more than 800 000 children since 2019.
- **WHO:** has today launched the [Strategy to Achieve Global Covid-19 Vaccination by mid-2022](#) (the Strategy) to help bring an end to what has become a two-track pandemic: people in poorer countries continue to be at risk while those in richer countries with high vaccination rates enjoy much greater protection.
- **ECDC:** is creating [new infrastructure to allow for regular monitoring and analysis of COVID-19 vaccine effectiveness \(VE\)](#) over time, using a multi-country approach, through the implementation of studies in different settings.  
ECDC: published a ECDC multi-country study about [Interim analysis of COVID-19 vaccine effectiveness against Severe Acute Respiratory Infection due to laboratory-confirmed SARS-CoV-2 among individuals aged 65 years and older](#)
- **ECDC:** published a [core protocol for ECDC studies of COVID-19 vaccine effectiveness against hospitalisation with Severe Acute Respiratory Infection laboratory-confirmed with SARS-CoV-2](#) which could also be used as a basis for other vaccine effectiveness studies in countries/hospitals that do not currently plan to participate in ECDC-funded studies.
- **CDC:** published a new study [Orphaned Children – More than 140,000 U.S. Children Lost a Primary or Secondary Caregiver Due to the COVID-19 Pandemic](#)

## Topics:

- Global situation
- European situation
- Vaccination news
- SARS-CoV-2 VOIs and VOCs
- Subject in Focus: Myocarditis as side-effect of mRNA vaccines
- Other Infectious Disease Outbreaks
- NATO Member State: Summary of information on the individual national Corona restrictions
- Travel Recommendations and other useful Links

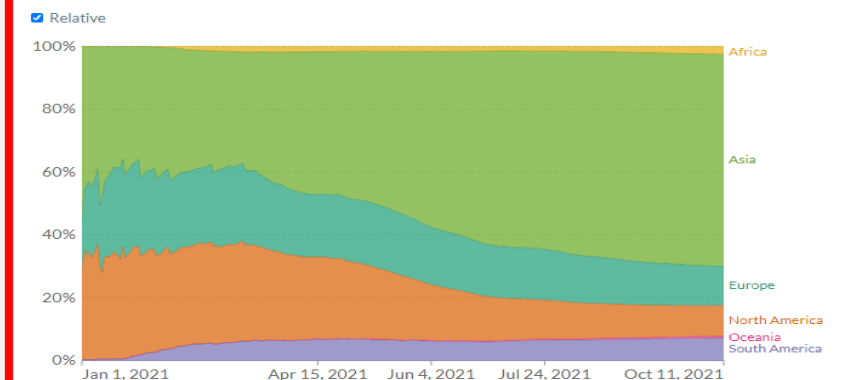
Share of people vaccinated against COVID-19, Oct 11, 2021



Source: Official data collated by Our World in Data. This data is only available for countries which report the breakdown of doses administered by first and second doses in absolute numbers. CC BY

## COVID-19 vaccine doses administered by continent

For vaccines that require multiple doses, each individual dose is counted. As the same person may receive more than one dose, the number of doses can be higher than the number of people in the population.



**Disclaimer:**  
This update provided by the NATO Centre of Excellence (NATO MILMED COE) on its website is for general information purposes only and cannot be considered as official recommendation. All national and international laws, regulations, and guidelines as well as military orders supersede this information.

All information is provided in good faith, however, the NATO MILMED COE makes no representation or warranty of any kind, express or implied, regarding the accuracy, adequacy, validity, reliability, availability or completeness of any information.

The information published on this website is not intended to substitute professional medical advice, diagnosis or treatment.

The NATO MILMED COE disclaim any liability in connection with the use of this information.

## EUROPE

68 479 269  
confirmed cases

64 480 000  
recovered  
1 319 056 deaths

## GBR

(7-days incidence 396,6)  
8 231 441  
confirmed cases

7 542 000 recovered  
137 944 deaths

## Russia

(7-days incidence 129,8)  
7 714 973  
confirmed cases  
7 106 000 recovered  
214 476 deaths

## Turkey

(7-days incidence 250,2)  
7 508 945  
confirmed cases  
6 958 000 recovered  
66 605 deaths

**GLOBAL**  
238 941 461  
Confirmed cases  
227 100 000 recovered  
4 868 815 deaths

**USA**  
(7-days incidence 187,5)  
44 363 297  
confirmed cases  
42 050 000 recovered  
712 980 deaths

**India**  
(7-days incidence 9,8)  
34 001 743  
confirmed cases  
33 190 000 recovered  
451 189 deaths

**Brazil**  
(7-days incidence 49,3)  
21 590 097  
confirmed cases  
20 710 000 recovered  
601 398 deaths

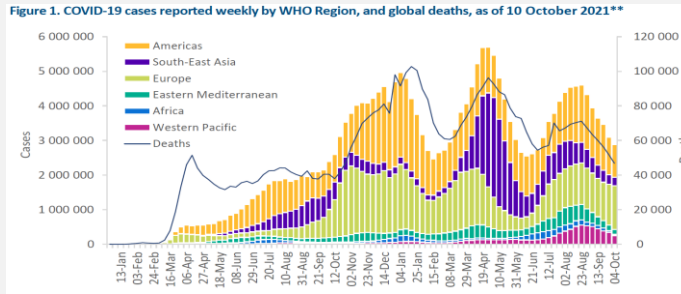
# Situation by WHO Region, as of 13 October

## Global epidemiological situation overview; WHO as of 13 October 2021

Globally, the numbers of weekly COVID-19 cases and deaths have continued to decline since late August (Figure 1). Over 2.8 million new cases and over 46 000 new deaths were reported during the week of 4 to 10 October 2021, representing decreases of 7% and 10% respectively, as compared to the previous week. Apart from the European Region, which reported a 7% increase in the number of new weekly cases as compared to the previous week, all the other regions reported declines in new weekly cases. The largest decrease in new weekly cases was reported from the African Region (32%), followed by the Western Pacific Region (26%). The cumulative number of confirmed cases reported globally is now over 237 million and the cumulative number of deaths is over 4.8 million. The number of new weekly deaths reported showed a large (>10%) decline for all regions except for the European Region, which reported an 11% increase as compared to the previous week. The largest decline in weekly deaths was reported from the Western Pacific and the African Regions, with both showing declines of 34% as compared to the previous week.

The highest numbers of new cases were reported from:

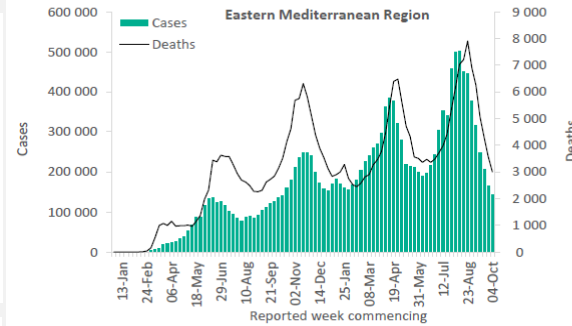
- United States of America (653 837 new cases; 12% decrease)
- United Kingdom (249 699 new cases; similar to last week)
- Turkey (205 266 new cases; similar to last week)
- Russian Federation (188 829 new cases; 14% increase)
- India (139 572 new cases; 13% decrease)



## Eastern Mediterranean Region

During this week, the Eastern Mediterranean Region reported over 144 000 new cases and over 3000 new deaths, a 13% and a 16% decrease respectively as compared to the previous week; this follows the decline observed since mid-August 2021. While most of the countries (16/22; 73%) reported a decrease in new weekly cases, with the greatest decrease reported from Tunisia, Sudan and Somalia reported large increases in case incidence as compared to the previous week. The highest numbers of new cases were reported from the Islamic Republic of Iran (79 934 new cases; 95.2 new cases per 100 000; a 13% decrease), Iraq (14 882 new cases; 37.0 new cases per 100 000; similar figures as last week), and Pakistan (8986 new cases; 4.1 new cases per 100 000; a 21% decrease).

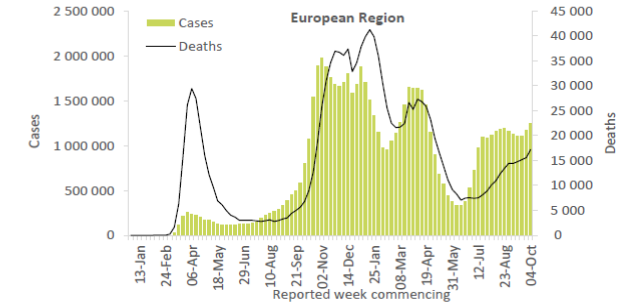
While most countries (14/22; 64%) in the Region reported a decline in new weekly deaths last week as compared to the previous week, Libya, Somalia and Sudan reported an increase. The highest numbers of new deaths were reported from the Islamic Republic of Iran (1490 new deaths; 1.8 new deaths per 100 000; an 18% decrease), Egypt (259 new deaths; <1 new death per 100 000; similar figures as last week), and Pakistan (256 new deaths; <1 new death per 100 000; a 17% decrease).



## European Region

Following a plateau in new weekly COVID-19 cases since mid-July, the Region reported a 7% increase compared to the previous week, with over 1.2 million new cases reported this week. Forty-six percent (28/61) of the countries showed an increase in the number of new weekly cases. The highest numbers of new cases were reported from the United Kingdom (249 699 new cases; 367.8 new cases per 100 000; similar to last week's figures), Turkey (205 266 new cases; 243.4 new cases per 100 000; similar to last week's figures), and the Russian Federation (188 829 new cases; 129.4 new cases per 100 000; a 14% increase).

During this week, over 17 000 new deaths have been reported in the Region, an 11% increase as compared to the previous week; continuing a steady increase observed since the end of June. Several countries in Eastern Europe including Czechia, Estonia, Hungary, Kyrgyzstan, Romania and Ukraine reported the greatest increase in new weekly deaths. Overall, the highest numbers of new deaths were reported from the Russian Federation (6497 new deaths; 4.5 new deaths per 100 000; an 8% increase), Romania (1854 new deaths; 9.6 new deaths per 100 000; a 54% increase), and Ukraine (1718 new deaths; 3.9 new deaths per 100 000; a 50% increase).

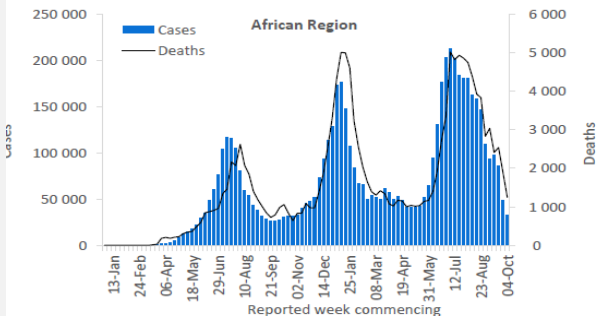


## WHO regional overviews Epidemiological week 4-10 October 2021

### African Region

Since mid-July, the African Region has shown a constant decline in the number of COVID-19 cases and deaths, with over 33 000 new cases and over 1200 new deaths reported last week, a 32% and a 34% decrease respectively as compared to the previous week. While the majority of countries (35/49; 71%) reported a decrease in new weekly cases, seven countries reported an increase, with Chad (by 54%) reporting the greatest increase. The highest numbers of new cases were reported from Ethiopia (6061 new cases; 5.3 new cases per 100 000; a 15% decrease), South Africa (5884 new cases; 9.9 new cases per 100 000; a 39% decrease), and Cameroon (3096 new cases; 11.7 new cases per 100 000; a 55% decrease).

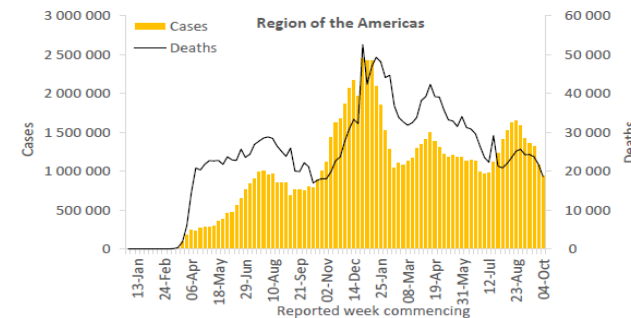
Concerning new weekly deaths, 75% of countries in the Region reported a decline whereas there was a marked increase observed in Senegal (by 125%) and Mali (by 100%). The highest numbers of new deaths were reported from South Africa (539 new deaths; <1 new death per 100 000; a 28% decrease), Ethiopia (275 new deaths; <1 new death per 100 000; a 10% decrease), and Cameroon (58 new deaths; <1 new death per 100 000; a 36% decrease).



### Region of the Americas

Since the end of August, the Region of the Americas has been reporting a declining trend in COVID-19 cases, with over 949 000 new cases reported this week, a 13% decrease as compared to previous week. Despite the declining trend in cases, 30% (17 out of 56 countries) reported an increase, with Montserrat (absolute numbers remain low), Saint Kitts and Nevis, and Saint Martin reporting the highest increase. The highest numbers of new cases were reported from the United States of America (653 837 new cases; 197.5 new cases per 100 000; a 12% decrease), Brazil (105 079 new cases; 49.4 new cases per 100 000; an 11% decrease), and Mexico (42 781 new cases; 33.2 new cases per 100 000; a 19% decrease).

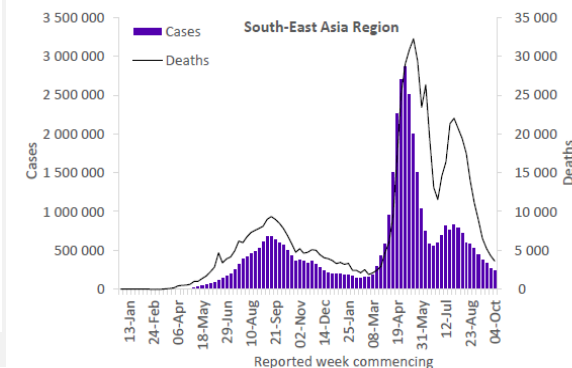
For new weekly deaths, over 18 000 new deaths were reported this week, a 14% decrease compared to the previous week. The highest numbers of new deaths were reported from the United States of America (9080 new deaths; 2.7 new deaths per 100 000; a 21% decrease), Mexico (3632 new deaths; 2.8 new deaths per 100 000; an 11% increase), and Brazil (3200 new deaths; 1.5 new deaths per 100 000; a 10% decrease).



### South-East Asia Region

The South-East Asia Region reported over 247 000 new cases and over 3600 new deaths, an 11% and a 16% decrease, respectively as compared to the previous week. All countries reported a decrease in weekly new cases and weekly new deaths this week, with the greatest decrease reported from Timor-Leste. Overall, cases and deaths have continued to decline since early August. The highest numbers of new cases were reported from India (139 572 new cases; 10.1 new cases per 100 000; a 13% decrease), Thailand (73 452 new cases; 105.2 new cases per 100 000; similar to last week's figures), and Myanmar (10 188 new cases; 18.7 new cases per 100 000; similar to last week's figures).

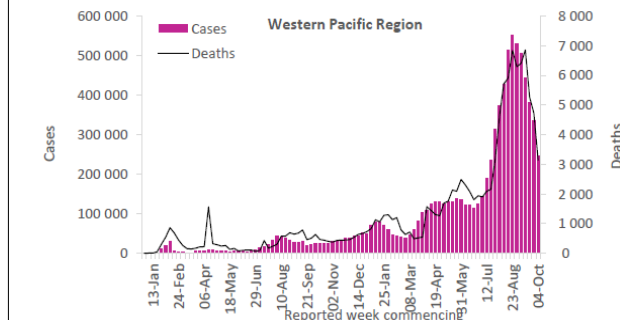
The highest numbers of new deaths were reported from India (1772 new deaths; <1 new death per 100 000; a 7% decrease), Thailand (677 new deaths; <1 new death per 100 000; a 9% decrease), and Indonesia (478 new deaths; <1 new death per 100 000; a 32% decrease).



### Western Pacific Region

Since late August, COVID-19 cases have continued to show a declining trend in the region, with over 249 000 new cases, a 26% decrease as compared to the previous week. While most of the countries reported a decline in weekly cases this week, New Zealand, Papua New Guinea, Singapore and Australia reported an increase in cases as compared to the previous week. The highest numbers of new cases were reported from the Philippines (74 277 new cases; 67.8 new cases per 100 000; a 32% decrease), Malaysia (63 722 new cases; 196.9 new cases per 100 000; a 24% decrease), and Viet Nam (32 932 new cases; 33.8 new cases per 100 000; a 42% decrease).

Deaths continue to decline since early September, with over 3100 new deaths reported this week, a 34% decrease as compared to the previous week. The highest numbers of new deaths were reported from the Philippines (849 new deaths; <1 new death per 100 000; a 32% decrease), Viet Nam (841 new deaths; <1 new death per 100 000; a 30% decrease), and Malaysia (700 new deaths; 2.2 new deaths per 100 000; a 50% decrease).



# Global Situation



**LTU:** Disease activity has been quickly rising since the **fourth wave** in mid-July. The **Delta variant (B.1.617.2)** has been responsible for **99% of new infections since July**.

In the past month, the seven-day rolling **average number of daily new cases** has climbed from 687 on September 6 to **1,741 on October 5**. The seven-day rolling **average number of daily new deaths** has escalated from nine on September 6 to **24 on October 5**. The **14-day test positivity rate** as of October 5 rose to **7%** from 4.7% on September 6, while the number of tests per 100,000 increased from roughly 6,600 to over 10,000 tests in the last month.

As of September 29, authorities have extended their **international and domestic restrictions until at least October 27**.

International travel restrictions to Lithuania follow the European Centre for Disease Prevention and Control (ECDC) country colour designations. Unvaccinated travellers from 'green' countries must provide a negative PCR test 72 hours before arrival, while travellers from 'orange (yellow)' countries will need to complete a second PCR test about three to five days after arrival. If travellers are from 'red' or 'grey' countries, they will need to follow protocols that of the 'orange (yellow)' nations, with the addition of a 10-day quarantine upon arrival. Fully-vaccinated international travellers are exempt from all restrictions above. Most businesses and public services are operational at a limited capacity with physical distancing measures.

A National Certificate (COVID-19 passport), available to those vaccinated or have previously recovered from the disease in the past 210 days, is required for access to non-essential businesses and services such as cultural and entertainment events and gatherings.

**PNG:** Disease activity has been gradually increasing since early August due to the Delta variant, marking the **third wave** for the country. Case numbers likely do not reflect the true activity because of **limited testing** which was reduced as of March. The seven-day rolling average number of new cases has increased from two cases on August 13 to **237 cases on October 5**. The seven-day rolling average number of new deaths increased from less than one death on August 13 to **one death on October 5**. However, media sources suggest that the **information on deaths may be an underestimate** as it is not routinely collected. Many hospitals are observing increasing admissions due to COVID-19, with increased demands for oxygen amidst the supply shortages, especially in remote regions.

As of September 30, **increased restrictions are in place until October 30**. This includes gathering limits of 20 people, mandatory facemasks, and capacity limits for public transit. Restaurants and recreational facilities may remain open. Gatherings and travel between provinces labelled high-risk are prohibited. However, essential travel by fully vaccinated individuals will be allowed with a negative test and permission from the provincial authorities. Travel for tourist purposes remains prohibited. Given that citizens, permanent residents, and fully vaccinated foreign nationals have written approval from the appropriate authorities, they must provide a negative PCR test taken 72 hours before arrival and a health declaration form to enter the country.

**THA:** At least 10 countries are expected to be able to travel quarantine-free to Thailand again from November 1st, provided they are fully vaccinated against the corona virus. The possibility is now being examined by the Crisis Center for Covid-19 Situation Administration (CCSA) and the Ministry of Health. Vacationers would only need to do one PCR test before leaving and another when arriving in Thailand. After that, they could travel freely to all parts of the country. More countries are to be added from December 1st. Then the serving of alcohol in restaurants, which has been banned for months due to a severe corona wave, will probably be allowed again. Vaccinated travelers from all other countries have to be quarantined for another seven days - or they take part in model projects in certain regions, such as on the islands of Phuket and Ko Samui. As part of the programs, in which some strict rules have to be followed, quarantine-free holidays for travelers with double vaccinations from numerous countries have been possible again since July.

**ROU:** Disease activity began to rise at an **unprecedented rate** since early September, likely driven by the **Delta variant (B.1.617.2)**. As of October 10, the seven-day rolling average number of daily new cases reached an **all-time high of 12,973**, which is a **seven-fold increase within a month** (September 10 had **1,814** seven-day-rolling average of daily new cases). Since October 5, there have been **more than 10,000 daily cases** for the first time since the beginning of the pandemic. Thus, Romania **significantly outpaces** both the European continent and the world average of daily new cases. In addition, the country reported **385 new deaths** on October 8, which is a **record number of deaths** within 24 hours since the beginning of the pandemic. Since October 5, more than **200 deaths** are reported **daily** whereas **less than 10 daily deaths were reported through July and August**. Within Europe, **Romania is now only second to Russia** - a country with more than seven times greater population- in new daily deaths over the past seven deaths.

On October 4, the country's National Committee for the Coordination of Activities on COVID-19 Vaccination (CNCAV) raised concerns over social media about the **death rate and the new record of daily cases**. Media reports indicate that the **healthcare system is overwhelmed and at the brink of a collapse** with almost no ICU beds left, and long waiting times for COVID-19 testing and results. The 14-day test positivity rate as of October 10 is **17.4% (remarkably high)**, underreporting is likely provided the high daily caseload. Data from a local hospital in Bucharest indicates that it is at **110%** percent occupancy. For the first time since the start of the pandemic, health authorities are considering the transfer of **200 to 300 patients outside the country for treatment**. Compounding and contributing to the problem, Romania, which has the most underfunded and understaffed healthcare system in Europe, also has the **lowest COVID-19 vaccination coverage in the continent**.

**RUS:** Russia has been among the top five countries with the highest seven-day rolling average number of daily new cases for two consecutive weeks. A new **steep rise in daily cases and deaths began in late September**. As of October 10, the seven-day rolling average number of daily new cases reached a peak of **26,975**, only comparable to the incidence on December 25, 2020 (**28,933**) when the country embarked on its "**worst**" and second wave since the beginning of the pandemic. Further, Russia **endured a devastating third wave**, likely driven by the **Delta variant**, registering over **700 daily virus deaths** between June and July 2021, which were initially considered the **deadliest months** throughout the pandemic. However, as of October 10, the seven-day-rolling average of daily new deaths stands at **917**, which is **above the previous all-time high records** since the beginning of the pandemic. In addition, there were **968 deaths** confirmed on October 9, which is an **all-time high on daily new deaths**, and the **fifth consecutive day** that the country reported **over 900 deaths within 24 hours**. It is noteworthy that throughout the pandemic Russia's official **COVID-19 statistics have been largely criticized**. It is believed that the true extent of its outbreak is greater than what official data reflects.

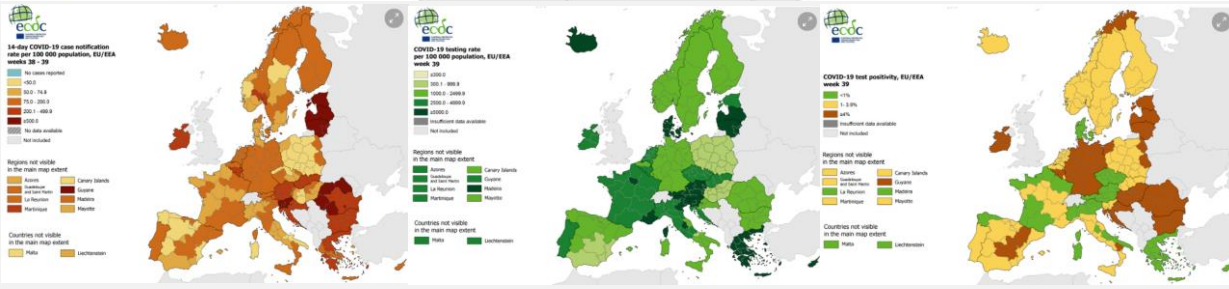
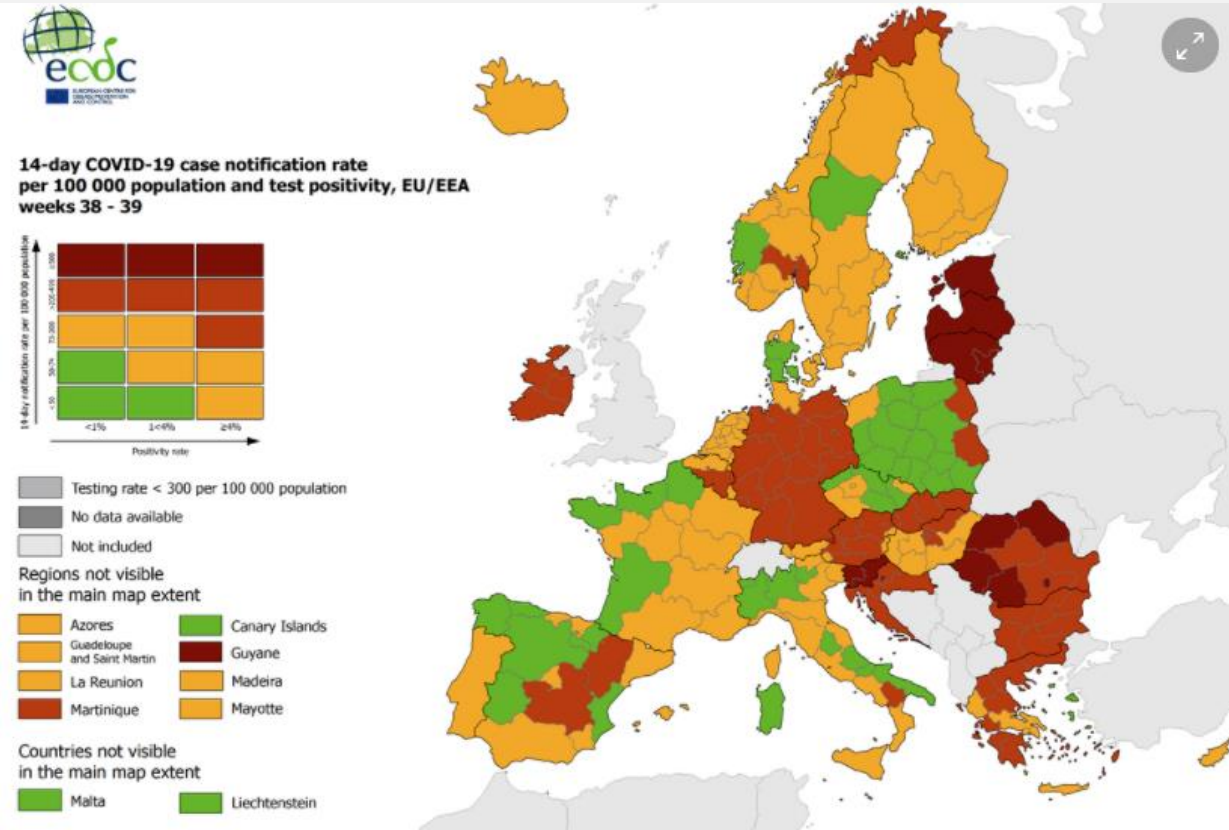
Excess deaths from publicly available mortality data are at **least four times higher** than the roughly 900,000 confirmed COVID-19 associated deaths. **Vaccine hesitancy has fuelled Russia's COVID-19 epidemiological situation**.

**SGP:** Disease activity has **surged over the last month**. The seven-day rolling average number of new cases has increased from **343 cases on September 10 to 3,196 cases on October 10**. News media reports the **Delta variant** has been the main driver of the current surge, however **98% of new cases are either mild or asymptomatic infections**. The 14-day test positivity rate as of October 11 was **2.9%**, which is an increase since September 10 when the rate was **0.4%**. Although the number of cumulative deaths (**162**) has remained low for the country throughout the pandemic, **104 of these deaths are from the last month alone**. The seven-day rolling average number of new deaths has increased from 1 new death on September 10 to 7 new deaths on October 10.



# European Situation

Maps in support of the Council Recommendation on a coordinated approach to the restriction of free movement in response to the COVID-19 pandemic in the EU, as of 07 October 2021



ECDC COVID-19 surveillance report Week 39, as of 07 October 2021

At the end of week 39 (week ending Sunday 3 October 2021), the overall epidemiological situation in EU/EEA was characterised by a high and stable overall case notification rate and a low death rate which has been increasing very slowly over time. Case notification rates, death rates, hospital and ICU admissions are all forecast to increase over the next two weeks. Case notification rates are currently highest among children below 15 years of age (although the trend is decreasing in this age group), following the rapid decline in cases among those aged 15 to 24 years. Case rates among those aged 50 years and above have started to increase. The picture varies considerably between countries. Increasing case notification rates and an overall epidemiological situation of high or very high concern are mainly concentrated in countries in the eastern part of the EU/EEA, particularly in those with lower rates of vaccination uptake.

The overall COVID-19 case notification rate for the EU/EEA was 150.5 per 100 000 population (147.3 the previous week). This rate has been stable for two weeks. The 14-day COVID-19 death rate (18.0 deaths per million population, compared with 17.2 deaths the previous week) has been stable for four weeks. Of 30 countries with data on hospital/ICU admissions or occupancy up to week 39, 12 reported an increasing trend in at least one of these indicators compared to the previous week. ECDC's assessment of each country's epidemiological situation is based on a composite score based on the absolute value and trend of five weekly COVID-19 epidemiological indicators. As shown below, for week 39, four countries (Estonia, Latvia, Lithuania and Romania) were categorised as of very high concern, four countries (Bulgaria, Croatia, Ireland and Slovakia) as of high concern, six countries (Belgium, Finland, Greece, Hungary, Iceland and Slovenia) as of moderate concern, 13 countries (Austria, Cyprus, Czechia, Denmark, France, Germany, Liechtenstein, Luxembourg, Netherlands, Norway, Poland, Portugal and Sweden) as of low concern and three countries (Italy, Malta and Spain) as of very low concern. Compared with the previous week, six countries (Belgium, Denmark, Iceland, Ireland, Lithuania and Slovakia) moved to a higher category, two countries (Luxembourg and Spain) moved to a lower category and 22 countries stayed in the same category.

Forecasts of cases and deaths from the [European COVID-19 Forecast Hub](#) and of hospital/ICU admissions produced by ECDC provide predictions for weeks 40 and 41. Compared with the current week, increasing trends in cases, increasing trends in hospital admissions, increasing trends in ICU admissions and increasing trends in deaths are forecast in the EU/EEA by the end of week 41. By the end of week 39, the pooled cumulative uptake of at least one vaccine dose in the EU/EEA was 79.9%

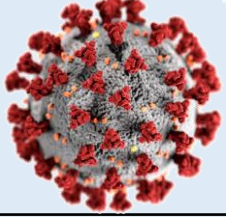
(range: 24.3–98.0%; 30 countries reporting) among adults aged 18 years and older and 68.2% (range: 20.3–87.0%; 30 countries reporting) in the total population. Cumulative uptake of full vaccination was 74.2% (country range: 23.1–95.2%) among adults aged 18 years and older and 63.1% (country range: 19.2–81.5%) in the total population.

The estimated distribution (median and range of values from 17 countries for weeks 37 to 38, 13 September to 26 September 2021) of variants of concern (VOC) was 99.6% (89.0–100.0%) for B.1.617.2 (Delta), 0.0% (0.0–10.2%) for B.1.617, 0.0% (0.0–0.8%) for P.1 (Gamma) and 0.0% (0.0–0.1%) for B.1.351 (Beta). The distribution was 0.0% (0.0–0.3%) for B.1.1.7 (Alpha), which has been downgraded from the list of VOCs on 3 September 2021.

Weekly COVID-19 epidemiological category by country, weeks 25 to 39 2021

Composite score (1-10) based on value and trend of the indicators. Categories are derived from score quartiles.

Level of concern	very low (1-2.9)	low (3.0-4.9)	moderate (5.0-6.9)	high (7.0-8.9)	very high (9.0-10)
2021-09-20	1.2	3.9	4.8	5.9	8.9
2021-09-27	1.2	3.9	4.8	5.9	8.9
2021-10-04	1.2	3.9	4.8	5.9	8.9
2021-10-11	1.2	3.9	4.8	5.9	8.9
2021-10-18	1.2	3.9	4.8	5.9	8.9
2021-10-25	1.2	3.9	4.8	5.9	8.9
2021-11-01	1.2	3.9	4.8	5.9	8.9
2021-11-08	1.2	3.9	4.8	5.9	8.9
2021-11-15	1.2	3.9	4.8	5.9	8.9
2021-11-22	1.2	3.9	4.8	5.9	8.9
2021-11-29	1.2	3.9	4.8	5.9	8.9
2021-12-06	1.2	3.9	4.8	5.9	8.9
2021-12-13	1.2	3.9	4.8	5.9	8.9
2021-12-20	1.2	3.9	4.8	5.9	8.9
2021-12-27	1.2	3.9	4.8	5.9	8.9
2022-01-03	1.2	3.9	4.8	5.9	8.9
2022-01-10	1.2	3.9	4.8	5.9	8.9
2022-01-17	1.2	3.9	4.8	5.9	8.9
2022-01-24	1.2	3.9	4.8	5.9	8.9
2022-01-31	1.2	3.9	4.8	5.9	8.9
2022-02-07	1.2	3.9	4.8	5.9	8.9
2022-02-14	1.2	3.9	4.8	5.9	8.9
2022-02-21	1.2	3.9	4.8	5.9	8.9
2022-02-28	1.2	3.9	4.8	5.9	8.9
2022-03-06	1.2	3.9	4.8	5.9	8.9
2022-03-13	1.2	3.9	4.8	5.9	8.9
2022-03-20	1.2	3.9	4.8	5.9	8.9
2022-03-27	1.2	3.9	4.8	5.9	8.9
2022-04-03	1.2	3.9	4.8	5.9	8.9
2022-04-10	1.2	3.9	4.8	5.9	8.9
2022-04-17	1.2	3.9	4.8	5.9	8.9
2022-04-24	1.2	3.9	4.8	5.9	8.9
2022-05-01	1.2	3.9	4.8	5.9	8.9
2022-05-08	1.2	3.9	4.8	5.9	8.9
2022-05-15	1.2	3.9	4.8	5.9	8.9
2022-05-22	1.2	3.9	4.8	5.9	8.9
2022-05-29	1.2	3.9	4.8	5.9	8.9
2022-06-05	1.2	3.9	4.8	5.9	8.9
2022-06-12	1.2	3.9	4.8	5.9	8.9
2022-06-19	1.2	3.9	4.8	5.9	8.9
2022-06-26	1.2	3.9	4.8	5.9	8.9
2022-07-03	1.2	3.9	4.8	5.9	8.9
2022-07-10	1.2	3.9	4.8	5.9	8.9
2022-07-17	1.2	3.9	4.8	5.9	8.9
2022-07-24	1.2	3.9	4.8	5.9	8.9
2022-07-31	1.2	3.9	4.8	5.9	8.9
2022-08-07	1.2	3.9	4.8	5.9	8.9
2022-08-14	1.2	3.9	4.8	5.9	8.9
2022-08-21	1.2	3.9	4.8	5.9	8.9
2022-08-28	1.2	3.9	4.8	5.9	8.9
2022-09-04	1.2	3.9	4.8	5.9	8.9
2022-09-11	1.2	3.9	4.8	5.9	8.9
2022-09-18	1.2	3.9	4.8	5.9	8.9
2022-09-25	1.2	3.9	4.8	5.9	8.9
2022-10-02	1.2	3.9	4.8	5.9	8.9
2022-10-09	1.2	3.9	4.8	5.9	8.9
2022-10-16	1.2	3.9	4.8	5.9	8.9
2022-10-23	1.2	3.9	4.8	5.9	8.9
2022-10-30	1.2	3.9	4.8	5.9	8.9
2022-11-06	1.2	3.9	4.8	5.9	8.9
2022-11-13	1.2	3.9	4.8	5.9	8.9
2022-11-20	1.2	3.9	4.8	5.9	8.9
2022-11-27	1.2	3.9	4.8	5.9	8.9
2022-12-04	1.2	3.9	4.8	5.9	8.9
2022-12-11	1.2	3.9	4.8	5.9	8.9
2022-12-18	1.2	3.9	4.8	5.9	8.9
2022-12-25	1.2	3.9	4.8	5.9	8.9
2023-01-01	1.2	3.9	4.8	5.9	8.9
2023-01-08	1.2	3.9	4.8	5.9	8.9
2023-01-15	1.2	3.9	4.8	5.9	8.9
2023-01-22	1.2	3.9	4.8	5.9	8.9
2023-01-29	1.2	3.9	4.8	5.9	8.9
2023-02-05	1.2	3.9	4.8	5.9	8.9
2023-02-12	1.2	3.9	4.8	5.9	8.9
2023-02-19	1.2	3.9	4.8	5.9	8.9
2023-02-26	1.2	3.9	4.8	5.9	8.9
2023-03-05	1.2	3.9	4.8	5.9	8.9
2023-03-12	1.2	3.9	4.8	5.9	8.9
2023-03-19	1.2	3.9	4.8	5.9	8.9
2023-03-26	1.2	3.9	4.8	5.9	8.9
2023-04-02	1.2	3.9	4.8	5.9	8.9
2023-04-09	1.2	3.9	4.8	5.9	8.9
2023-04-16	1.2	3.9	4.8	5.9	8.9
2023-04-23	1.2	3.9	4.8	5.9	8.9
2023-04-30	1.2	3.9	4.8	5.9	8.9
2023-05-07	1.2	3.9	4.8	5.9	8.9
2023-05-14	1.2	3.9	4.8	5.9	8.9
2023-05-21	1.2	3.9	4.8	5.9	8.9
2023-05-28	1.2	3.9	4.8	5.9	8.9
2023-06-04	1.2	3.9	4.8	5.9	8.9
2023-06-11	1.2	3.9	4.8	5.9	8.9
2023-06-18	1.2	3.9	4.8	5.9	8.9
2023-06-25	1.2	3.9	4.8	5.9	8.9
2023-07-02	1.2	3.9	4.8	5.9	8.9
2023-07-09	1.2	3.9	4.8	5.9	8.9
2023-07-16	1.2	3.9	4.8	5.9	8.9
2023-07-23	1.2	3.9	4.8	5.9	8.9
2023-07-30	1.2	3.9	4.8	5.9	8.9
2023-08-06	1.2	3.9	4.8	5.9	8.9
2023-08-13	1.2	3.9	4.8	5.9	8.9
2023-08-20	1.2	3.9	4.8	5.9	8.9
2023-08-27	1.2	3.9	4.8	5.9	8.9
2023-09-03	1.2	3.9	4.8	5.9	8.9
2023-09-10	1.2	3.9	4.8	5.9	8.9
2023-09-17	1.2	3.9	4.8	5.9	8.9
2023-09-24	1.2	3.9	4.8	5.9	8.9
2023-10-01	1.2	3.9	4.8	5.9	8.9
2023-10-08	1.2	3.9	4.8	5.9	8.9
2023-10-15	1.2	3.9	4.8	5.9	8.9
2023-10-22	1.2	3.9	4.8	5.9	8.9
2023-10-29	1.2	3.9	4.8	5.9	8.9
2023-11-05	1.2	3.9	4.8	5.9	8.9
2023-11-12	1.2	3.9	4.8	5.9	8.9
2023-11-19	1.2	3.9	4.8	5.9	8.9
2023-11-26	1.2	3.9	4.8	5.9	8.9
2023-12-03	1.2	3.9	4.8	5.9	8.9
2023-12-10	1.2	3.9	4.8	5.9	8.9
2023-12-17	1.2	3.9	4.8	5.9	8.9
2023-12-24	1.2	3.9	4.8	5.9	8.9
2024-01-01	1.2	3.9	4.8	5.9	8.9



# Vaccination News



**WHO:** According to an international panel of experts, people with a weakened immune system should receive a third dose of the corona vaccine. This can ensure that they are about as well protected from infection as people with an intact immune system who received two doses, the experts reported. You are a member of the World Health Organization's (WHO) Independent Advisory Board on Immunization Issues (SAGE). The third dose should be given between one and three months after the initial vaccination. The SAGE team emphasized that their recommendation was not about a third vaccination for the general population. Rather, the WHO has called on governments that have a lot of vaccines to refrain from such offers. Instead, they should be giving their doses to countries that do not yet have enough vaccine to protect those most in need. In around 50 countries, especially in Africa, less than ten percent of people are vaccinated against the coronavirus.

**Moderna:** The US biotech company Moderna is not planning to disclose the formula for its corona vaccine. The company's management has come to the conclusion that increasing production by the company itself is the best way to improve global supply, said Noubar Afeyan, co-founder and chairman of the board of directors of Moderna, told AP news agency. The World Health Organization has asked Moderna as well as other vaccine manufacturers to disclose the formula. Afeyan said Moderna had checked whether such a move would be better, but believed that production could be increased and an additional billion cans could be shipped in 2022.

**Curevac:** The biotech company Curevac is withdrawing its first vaccine candidate from the approval process at the European Medicines Agency (EMA). As the company announced, it was assumed that EMA approval would not have been granted until the second quarter of 2022 at the earliest. There was no formal application for approval for the vaccine candidate CVnCoV, CVnCoV was still in the so-called rolling procedure for approval. In late June, Curevac announced that its first-generation vaccine candidate was less effective than some other vaccines. At the beginning of July, the Tübingen biotech company assumed that the EMA would approve the vaccine despite its low effectiveness. According to a final analysis, the Curevac preparation had shown an effectiveness of 48 percent against COVID-19 disease across all age groups. This makes it significantly less effective overall than other vaccines. The company wants to focus on the development of another Covid-19 vaccine with its British partner GlaxoSmithKline (GSK).

**ECDC:** As of October 2021, more than 30 hospitals in 10 EU countries are part of the monitoring in hospital settings. These are Belgium, Czechia, Croatia, France, Greece, Ireland, Luxembourg, Malta, Portugal and Spain. On October 8, ECDC published an initial [interim analysis](#) presenting pooled estimates of VE against severe acute respiratory infection due to laboratory-confirmed SARS-CoV-2 in hospitalised patients. The report indicates high VE of 90% when assessed 14 days after a full vaccination course, and for vaccines that received conditional marketing authorisation by the European Medicines Agency. Data were collected between December 2020 and June 2021 and indicates high efficacy in preventing hospitalisation for COVID-19.

**RUS:** Although Russia produced the world's first registered COVID-19 vaccine Sputnik-V (Gamaleya Research Institute), and even though the shots have been widely available for months, as of October 9, only **31%** of the total population of 146 million has been fully vaccinated, while only **3%** is partially vaccinated. In addition, countrywide polls have indicated that nearly **two-thirds of citizens have already decided not to get vaccinated**. Analysts attribute Russians' hesitancy to a mix of factors, including widespread distrust of the authorities and frequent state television reports describing that COVID-19 has mostly defeated or is not very dangerous.

Sources: <https://www.tagesschau.de/newsticker/liveblog-coronavirus-dienstag-247.html>  
<https://insights.bluedot.global/>

**SGP:** As of October 8, **85%** (5,022,579) of Singapore's population of 5,908,916 have received at least one dose of COVID-19 vaccine. News media reports that **83%** (4,904,400) of the population have been fully vaccinated with either Comirnaty (Pfizer/BioNTech) or Spikevax (Moderna) vaccines. Health authorities announced that from October 9 onwards, an additional vaccine dose will be offered to health care workers who have been fully vaccinated for six months. Progressively, additional vaccinations will be rolled out for institutionalized individuals, such as those in prisons and residential care facilities.

**LTU:** As of October 5, **62.9%** (1,754,662) of the country's roughly 2.8 million population have received **at least one dose** of a COVID-19 vaccine and **58.3%** (1,623,972) are **fully vaccinated**. Lithuania began its vaccination campaign in late December 2020 and had since been administering the Comirnaty (Pfizer/BioNTech), Spikevax (Moderna), Vaxzevria (Oxford/AstraZeneca), and Janssen (Johnson & Johnson) vaccines. Officials initially targeted to immunize about 70% of its population by the end of the year. However, with new variants, there are discussions now considering immunizing at least 90% of the people before restrictions can be lifted. As of September 7, a **booster dose of COVID-19 vaccines is available for medics, nursing and care home staff, and individuals aged 65 and older**.

**PNG:** As of October 5, **1.4%** (119,996) of the country's population of 8.8 million has received **at least one dose** of a COVID-19 vaccine and **less than one percent** (45,074) are **fully vaccinated**. Vaccines administered include Comirnaty (Pfizer/BioNTech), Janssen (Johnson & Johnson), Vaxzevria (Oxford/AstraZeneca), BBIBP-CorV (Sinopharm). News media suggests that misinformation and vaccine hesitancy are perpetuating low vaccination rates in the country, even among health-care workers. Australia continues to support Papua New Guinea's immunization efforts by donating additional 26,500 COVID-19 vaccines this week.

**BRA:** Pfizer Inc will study the effectiveness of its vaccine against COVID-19 by inoculating the whole population over the age of 12 in a town in southern Brazil. The study will be conducted in Toledo, population 143,000, in the west of Parana state, together with Brazil's National Vaccination Program, local health authorities, a hospital and the federal university. Pfizer said the purpose was to study the behavior of COVID-19 in a "real life scenario" after the population has been vaccinated. Source: <https://www.medscape.com/viewarticle/960344>

**FIN:** On Thursday Finland paused the use of Moderna's COVID-19 vaccine for younger males due to reports of a rare cardiovascular side effect, joining Sweden and Denmark in limiting its use. Finland would instead give Pfizer's vaccine to men born in 1991 and later. Finland offers shots to people aged 12 and over. A Nordic study involving Finland, Sweden, Norway and Denmark found that men under the age of 30 who received Moderna Spikevax had a slightly higher risk than others of developing myocarditis. Swedish and Danish health officials had announced on Wednesday they would pause the use of the Moderna vaccine for all young adults and children, citing the same unpublished study. Norwegian health officials reiterated on Wednesday that they recommended men under the age of 30 opt for Pfizer's vaccine. The Finnish institute said the Nordic study would be published within a couple of weeks and preliminary data had been sent to the European Medicines Agency (EMA) for further assessment. The EMA's safety committee concluded in July that such inflammatory heart conditions could occur in very rare cases following vaccination with Spikevax or the Pfizer/BioNTech Comirnaty jab, more often in younger men after the second dose. Regulators in the United States, EU and the World Health Organization have however stressed that the benefits of shots based on the mRNA technology used by Moderna and Pfizer-BioNTech in preventing COVID-19 continue to outweigh the risks. Source: <https://www.medscape.com/viewarticle/960439>



# European Situation on Vaccination

Source: <https://gap.ecdc.europa.eu/public/extensions/COVID-19/vaccine-tracker.html#uptake-tab>

Total doses distributed to EU/EEA countries

740,351,080

581,440,261

Total doses administered in EU/EEA countries

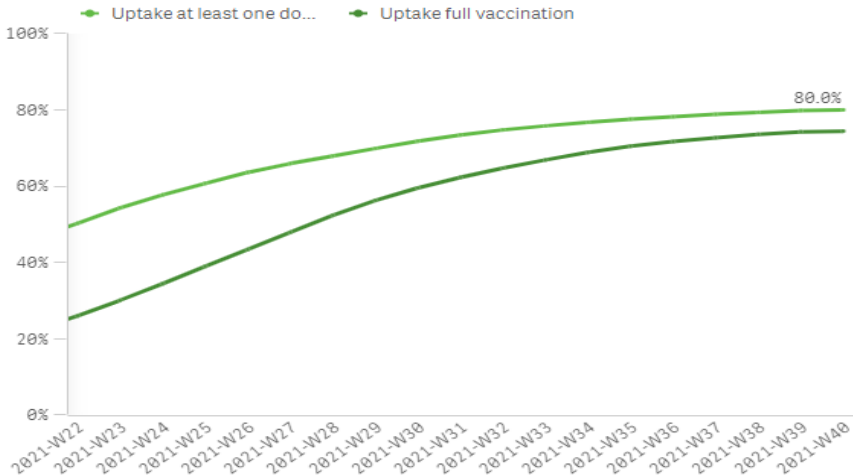
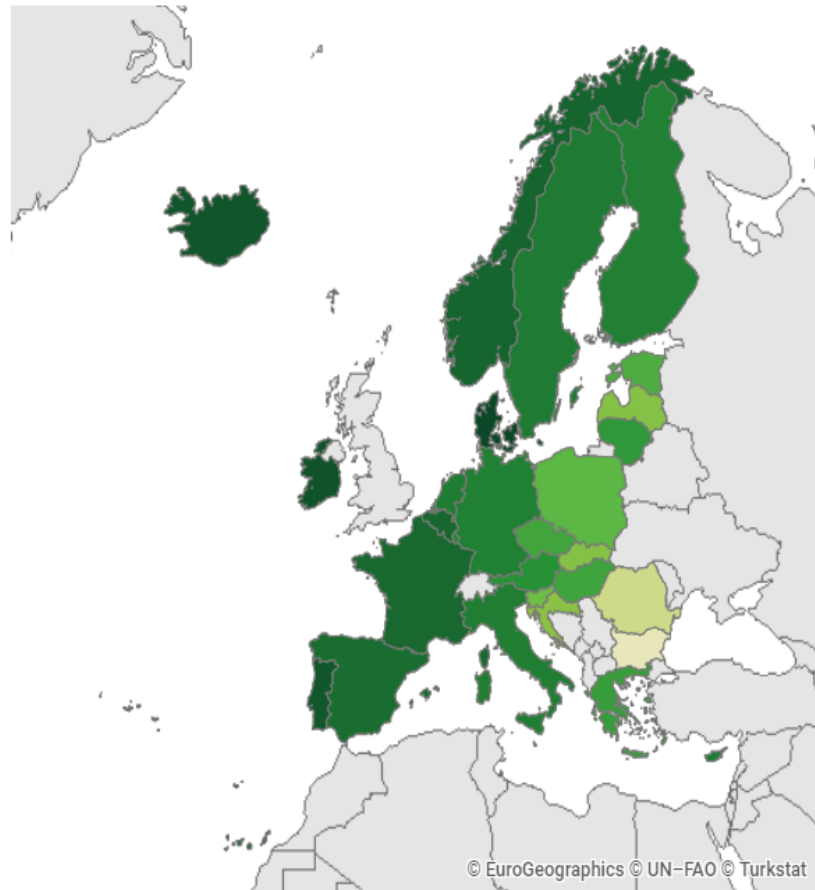
Indicator: Uptake full vaccination

Cumulative uptake (%) of at least one vaccine dose and full vaccination among adults (18+) in EU/EEA countries as of 2021-10-11

Cumulative uptake (%) of at least one vaccine dose by age group in EU/EEA countries as of 2021-10-11

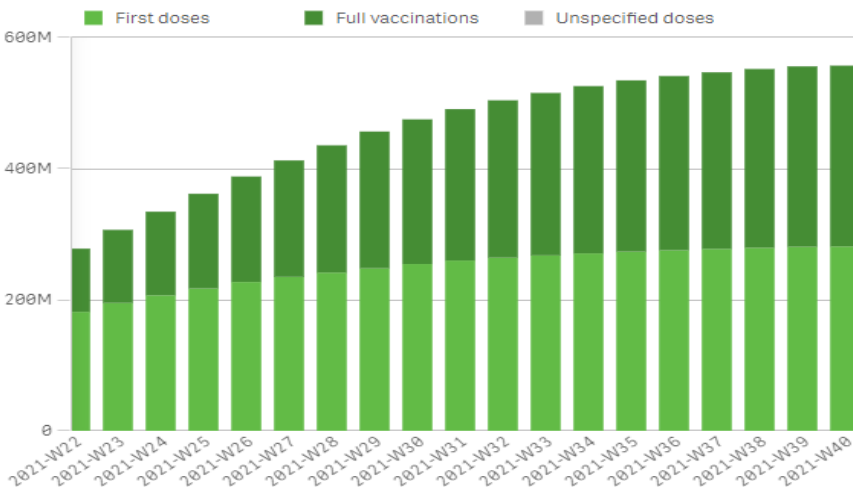
by reporting week (data for the current week are preliminary)

Cumulative uptake (%) of full vaccination among adults (18+) in EU/EEA countries as of 2021-10-11



Cumulative number of vaccine doses administered to adults (18+) in EU/EEA countries as of 2021-10-11

by reporting week (data for current week are preliminary)



Country	80+ years	70-79 years	60-69 years	50-59 years	25-49 years
Austria	100.0%	84.0%	87.0%	77.3%	67.3%
Belgium	91.0%	96.2%	93.6%	90.1%	81.9%
Bulgaria	21.4%	33.1%	31.6%	27.2%	19.9%
Croatia	58.4%	75.6%	70.7%	58.8%	43.9%
Cyprus	97.4%	96.9%	89.9%	84.3%	77.3%
Czechia	83.9%	88.6%	76.3%	72.4%	57.0%
Denmark	100.0%	100.0%	97.2%	94.5%	83.7%
Estonia	67.2%	77.2%	72.9%	70.7%	62.1%
Finland	95.3%	99.8%	91.7%	88.3%	80.7%
France	86.5%	97.4%	90.1%	90.5%	85.4%
Germany	-	-	-	-	-
Greece	74.2%	82.6%	80.1%	74.2%	64.5%
Hungary	76.3%	87.0%	78.8%	72.7%	62.5%
Iceland	100.0%	100.0%	99.4%	92.5%	86.9%
Ireland	100.0%	100.0%	100.0%	98.3%	87.2%
Italy	97.7%	92.4%	90.8%	86.9%	78.9%
Latvia	45.0%	56.9%	59.1%	56.4%	54.8%
Liechtenstein	-	-	-	-	-
Lithuania	61.0%	78.0%	81.3%	75.1%	72.8%
Luxembourg	88.0%	87.8%	85.3%	82.8%	70.6%
Malta	100.0%	100.0%	95.6%	89.1%	88.6%
Netherlands	-	-	-	-	-
Norway	98.4%	100.0%	97.5%	95.4%	86.0%
Poland	70.2%	88.1%	73.2%	65.2%	54.4%
Portugal	100.0%	100.0%	100.0%	98.9%	94.1%
Romania	20.5%	37.8%	40.3%	39.9%	33.7%
Slovakia	59.7%	74.6%	64.3%	55.9%	46.1%
Slovenia	77.7%	86.3%	76.0%	68.3%	51.3%
Spain	100.0%	98.9%	98.5%	94.7%	83.5%
Sweden	95.1%	96.4%	91.8%	89.5%	78.5%

Uptake full vaccination (%)



# Variants and Mutations; Variants of Global Concern

## Increased Disease Severity with Delta Variant

Infections caused by a variant of concern (VOC) have been shown to **slow the progression** against the pandemic in three ways: by **increasing transmissibility** and virus reproduction number, **increasing immune escape** and **reducing vaccine effectiveness**, and **increasing the virulence** of SARS-CoV-2 infection. On October 5, a retrospective study on the relative virulence (disease severity) for VOC infections found an **increased risk of hospitalization, admission to intensive care, and death compared to original strain infections.**

Research by the University of Toronto looked at a cohort of over 212,000 COVID-19 cases in Ontario between February 7 to June 27, 2021. This cohort included about **22.4%** non-VOC infections, **76.7%** of VOC infections including Alpha (B.1.1.7), Beta (B.1.351), and Gamma (P.1), and 2.8% of probable Delta (B.1.617.2) variant infections.

The study determined that **VOC infections**, such as with the Alpha, Beta, and Gamma, **compared to the original strain of the virus, had high severity of the disease.** These early VOC infections increased the likelihood of being hospitalized by 52%, the likelihood of being in intensive care by 89%, and the likelihood of death by 51%. The Delta variant, which first arrived in Ontario in April 2021 and developed into a dominant strain by July 2021, showed significantly increased disease severity. With the **Delta variant**, there was a **108% increased likelihood of being hospitalized, 235% increased likelihood for intensive care, and 133% increased likelihood of death.**

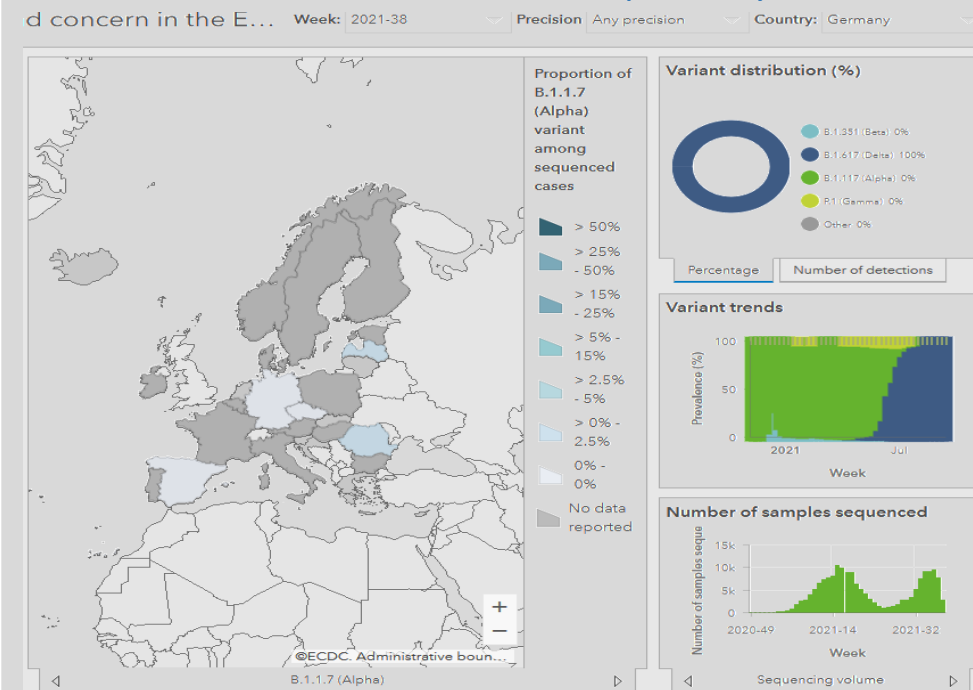
Unlike the first two waves in Ontario, VOC cases between February to June 2021 occurred predominantly in populations that were younger and had a reduced likelihood of comorbidities than those infected by non-VOCs. However, **despite adjusting the data for age, sex, and other comorbidities, an increased risk of adverse outcomes remained.**

Studies conducted in England and Scotland have also found that there is an increased risk of hospitalization and emergency department use with Delta variant infections. Additionally, one study looking at those with Delta variant infections in Singapore noted a heightened risk of severe disease outcomes such as pneumonia, oxygen support requirements, intensive care admission, and death.

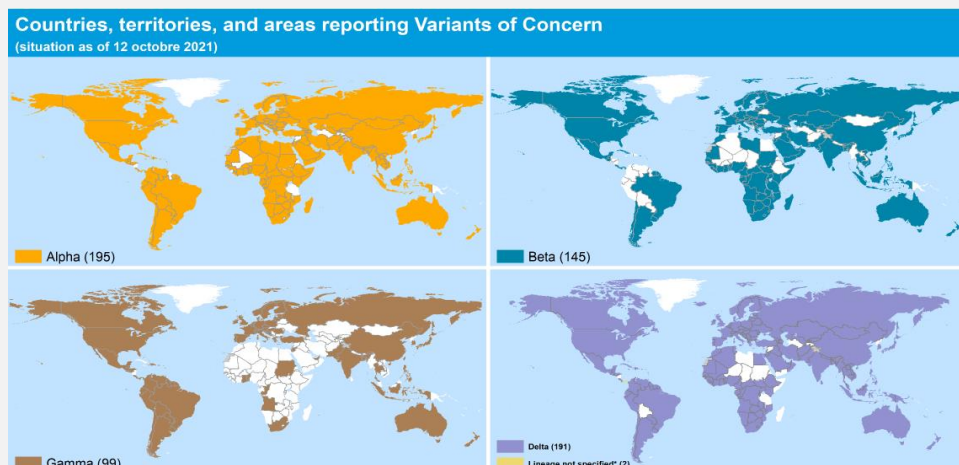
Of note, vaccination coverage was increasing as the new Delta variant emerged in Ontario. **Vaccines protected individuals by reducing VOC infection disease severity and reducing the risk of death in partially and fully vaccinated individuals.** Reports from September showed that when compared to vaccinated individuals in Ontario, **unvaccinated people were seven times more likely to get infected with SARS-CoV-2, 25 times more likely to be hospitalized, and 60 times more likely to be admitted to intensive care.**

Overall, there is an **increased risk of disease severity with SARS-CoV-2 VOCs.** Without measures to prevent the spread of disease, it is expected that the pandemic will worsen, especially for those who are unvaccinated.

### Variants distribution in EU/EEA Member States – example Germany



Source:  
[Weekly epidemiological update on COVID-19 - 5 October 2021 \(who.int\)](https://www.who.int/news/item/05-10-2021/weekly-epidemiological-update-on-covid-19-5-october-2021)  
<https://www.ecdc.europa.eu/en/covid-19/situation-updates/variants-dashboard>



# Myocarditis as side-effect of mRNA vaccines

On 5 Oct. Finland paused the use of Moderna's COVID-19 vaccine for younger males due to reports of a rare cardiovascular side effect, joining Sweden and Denmark in limiting its use. A Nordic study involving Finland, Sweden, Norway and Denmark found that men under the age of 30 who received Moderna Spikevax had a slightly higher risk than others of developing myocarditis, Finnish officials said. Swedish and Danish health officials had announced on the week prior they would pause the use of the Moderna vaccine for all young adults and children, citing the same unpublished study. Norwegian health officials recommended men under the age of 30 to opt for Pfizer's vaccine.

While the unpublished Nordic study is not yet publicly available at the time of writing, last week's literature features new descriptions of myocarditis linked to the two available mRNA vaccines against SARS-CoV-2. They tell a story largely consistent with previous experience to date, and support that associated myocarditis is usually mild and self-limiting, and is far less likely to occur than myocarditis or death in unvaccinated people with COVID-19. In line with previous research, the new analyses suggest the myocarditis, with onset usually a few days to a week after injection, has an overall incidence that ranges from less than one to perhaps three per 100,000 people who received at least one of the full mRNA-vaccine regimen's two injections. Also, as in earlier studies, the incidence climbed higher — sometimes sharply — in certain groups by age and sex, particularly in young men and older male teens. The new studies are confirmatory, in terms of the risk being low, but underscore that clinicians still must be wary of myocarditis as a potential complication of the mRNA vaccines. In the new myocarditis reports more than 90% of the cases were mild and "resolved on their own without a major adverse outcome." The myocarditis associated with SARS-CoV-2 infection is not only more likely than the vaccine-related myocarditis, but it's also usually far more severe. In a [recent study](#) in which the mRNA vaccines, compared with no vaccination, appeared to escalate the myocarditis risk by a factor of 3, whereas the risk for myocarditis in SARS-CoV-2 infection was increased 18 times.

In contrast, the new myocarditis cases reported last week feature a few that are novel or are at least very rare, including the case of a patient who developed cardiogenic shock and another with fulminant myocarditis who died.

The CDC in May publicly described the apparent link between myocarditis and the two available mRNA vaccines against SARS-CoV-2: BNT162b2 (Pfizer-BioNTech) and mRNA-1273 (Moderna). In June the US Food and Drug Administration [added a warning](#) about the risk to their labeling.

In a report [published](#) October 4 in *JAMA Internal Medicine* by Lee et al. 15 confirmed cases of myocarditis were identified among about 2.4 million members of a major USA healthcare provider aged 18 or older who received at least one injection of the Pfizer or Moderna mRNA vaccines between December 2020 and July 2021. The study counted cases up to 10 days after the first or second injection, of which there were 2 and 13, respectively. All eight patients who received the Pfizer-BioNTech vaccine and the seven given the Moderna vaccine were male with a median age of 25 years (IQR 20 - 32 years). "The main takeaway messages from our study are that the incidence of myocarditis after COVID-19 mRNA vaccinations is very low, that this condition is primarily observed in young men within a few days after the second dose, and that most patients recover quickly," said the senior author "The incidence of vaccine-related myocarditis was significantly lower than rates of COVID-19 hospitalization during the same period and population area," she added. The group saw a per-million incidence of 0.8 and 5.8 myocarditis cases in the 10 days after first and second injections, respectively. That made for an incidence of 0.58 per 100,000 fully vaccinated adults (one case per 172,414 fully vaccinated adults). The group also considered a cohort of 1,577,741 unvaccinated people with a median age of 39 years (IQR 28 - 53 years) during the same period. Of the 75 cases of myocarditis, 52% were in men. Comparing the vaccinated and unvaccinated cohorts, they saw a 10-day vaccine-associated myocarditis incidence rate ratio (IRR) of 0.38 after the first dose and 2.7 after the second dose. None of the 15 patients required admission to an intensive care unit, all patients with myocarditis responded well to treatment and felt better quickly. Myocarditis after an mRNA vaccine injection is rare and the benefits of the COVID-19 vaccine greatly outweigh the risks.

In a separate Israeli analysis of 5,442,696 people given a first dose of the Pfizer-BioNTech vaccine and 5,125,635 given a second dose, there were 142 cases of myocarditis with onset 21 days after the first dose and 30 days after the second dose. Of those cases, 136 were documented as "definite or probable".

Of the 136 people with definite or probable cases, the myocarditis was generally mild in 129 cases and usually resolved on its own, notes the report on the study, [published](#) October 6 in the *New England Journal of Medicine* by MEVORACH et al.. The estimated myocarditis incidence per 1000 after a second vaccine dose across the entire Israeli population, based on the current study, was about 3,85 (one per 26,000) for males and 0,46 (one per 218,000) for females. Those figures compare with 9,21 (one per 10,857) among the general unvaccinated population. Again, the risk was concentrated among younger men and male adolescents. In an analysis limited to vaccinated people aged 16 to 19 years, myocarditis in the 21 days after a second mRNA injection was seen in about one of 6637 males and one of 99,853 females. The standardized incidence ratio of 5.34 after a second injection, across all groups, was driven mostly by the diagnosis of myocarditis in younger male recipients. Among that male subgroup, the ratios by age group were 13.60 for 16 to 19 years, 8.53 for 20 to 24 years and 6.96 for 25 to 29 years. Most of the patients with myocarditis showed significant clinical improvement, with a mean hospitalization time of only 3 to 4 days, treatment consisted of nonsteroidal anti-inflammatory drugs. However, seven patients (4.9%) developed important complications, including left-ventricular dysfunction, ventricular arrhythmias, and heart failure. Among them was a 22-year-old patient who died of fulminant myocarditis within 24 hours of diagnosis.

[Published](#) by the same journal as the Mevorach et al. study, an analysis of a separate database showed largely consistent findings among patients in the largest of Israel's four healthcare organizations charged by the government to administer health services. The report, focused on members of the healthcare organization who were 16 years or older and had received at least one Pfizer mRNA vaccine dose by the end of May 2021. The cohorts from the two separate reports surely overlap substantially, as the Ministry of Health analysis from Mevorach derived from a nationwide database, and the healthcare organizations providing their data covers 52% of the Israeli population.

Of 2,558,421 vaccinated people in the analysis, of whom 94% received two doses, 54 developed confirmed myocarditis in the 42 days after the first dose. Their median age was 27 years (IQR 21 – 35 years) and all but three (94%) were male. Of those 54 cases, 41 were considered mild and 12 intermediate in severity, and one was fulminant with the patient in cardiogenic shock. In addition, nonsustained ventricular tachycardia and atrial fibrillation developed in 5% and 3% of cases, respectively. The estimated myocarditis incidence in the 42 days after administration of at least one mRNA vaccine dose was 2.13 per 100,000 vaccinated people. The corresponding incidences per 100,000 were 4.12 and 0.23 for males and females, respectively. Also in the current report, incidences per 100,000 vaccinated people aged 16 to 29 years, by sex, included: 5.49 overall and 10.69 for males, the highest rate in the report.

There was only one case in a female aged 16 to 29 years, and two cases in females 30 years or older.

Of note, some authors of the current study are also authors on the [high-profile report](#) from Barda et al., published August 25 in the *New England Journal of Medicine*, that used the same database to arrive at an mRNA-vaccine-related incidence of myocarditis of 2.7 per 100,000. Eligibility criteria and follow-up time were different in that report, as were case ascertainment criteria.

The myocarditis risk associated with the two mRNA vaccines is small compared with "the morbidity and mortality of COVID-19 infection, in which up to 28% of hospitalized patients showed signs of myocardial injury," an [editorial](#) accompanying the Lee et al. report notes, "Randomized clinical trials show that COVID-19 mRNA vaccines represent a safe and effective method of preventing infection," they state. "The identification of rare myocarditis does not change clinical decision-making."



# Other Infectious Disease Outbreaks

Source:  
The New Humanitarian | The Cheat Sheet  
www.bluedot.global

Status of malaria vaccines | PATH Malaria Vaccine Initiative

## Ebola

**DR Congo** - On Friday 8 Oct. a case of Ebola has been reported in the eastern Democratic Republic of Congo. The official confirmation is pending. The case is stated to be a 2 year old in a densely-populated neighbourhood of the city of Beni, one of the epicentres of the 2018-2020 outbreak. Three of the baby's neighbours presented symptoms consistent with Ebola in September 2021 and then died, however, none were tested for the virus.

Source: [Promed Post - ProMED-mail \(promedmail.org\)](#)

## Japanese encephalitis

**India** - According to the civil surgeon's office in Patna, a child from the city outskirts village of Pandarak died due to Japanese encephalitis on 5 Oct 2021. The child was admitted to the NICU ward of Patna Medical College and Hospital (PMCH). Another child from the Karauta village near Bakhtiyarpur was also found positive with Japanese encephalitis. He was also admitted to the PMCH. The Japanese encephalitis virus is endemic in north eastern India, including Bihar state, and cases occur there annually. Although there have been fewer cases of acute encephalitis syndrome and Japanese encephalitis in Bihar state this year (2021) than in previous years, these 2 cases indicate that Japanese encephalitis virus continues to be transmitted in that state. The widespread immunization program in 35 of the 38 districts reported earlier most likely has played a role in Japanese encephalitis case reduction

Source: [Promed Post - ProMED-mail \(promedmail.org\)](#)

## Unknown Fever

**India** - On August 30, 2021, reports of an unknown fever emerged from the state of Uttar Pradesh (depicted in blue on the map) in the rural areas of Agra, Mathura, and Firozabad. By then, the illness had resulted in at least 68 deaths, of which 40 were among children. As of October 7, unknown fevers have also been reported in the nearby states of Bihar, Madhya Pradesh, Haryana, Delhi, Andhra Pradesh and West Bengal (depicted in dark grey on the map). As seen in Firozabad, the largest epicenter, most of the affected individuals are children. On September 6, health authorities sent members of the National Centre for Disease Control (NCDC) and the National Vector Borne Disease Control Program (NVBDCP) to all affected areas due to conflicting reports on the probable cause of disease and deaths. Pending laboratory confirmation, clinical evaluations suggest that most deaths among these children may be attributed to dengue, malaria, scrub typhus, and leptospirosis. While the number of cases and deaths for each suspected disease has not been disclosed, COVID-19 was ruled out in each case.

Source: [Brief Focus Report | Bluedot.global](#)



## Malaria Vaccine WHO Approved

### Introduction to the disease

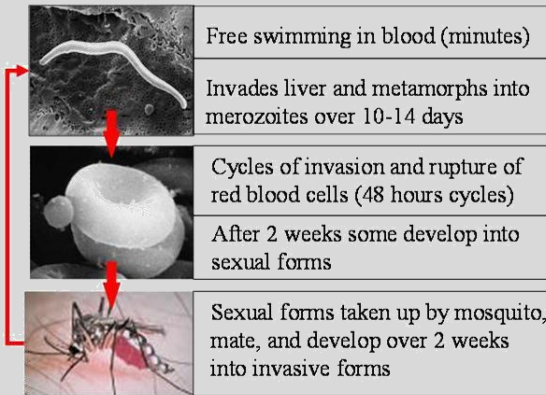
According to official data, there were an estimated 229 million cases of malaria and nearly half a million deaths worldwide in 2019. Children represent the most vulnerable groups, accounting for at least 67% of all malaria deaths worldwide.

The complex life cycle of the malaria parasite *Plasmodium falciparum* can be broken down into four stages—pre-erythrocytic (divided into the sporozoite stage and liver stage), blood, and sexual. It is important to consider the parasite life cycle because vaccines are designed to affect one or more of the stages listed above. A vaccine's impact on malaria disease and transmission depends on what stage of the parasite life cycle the vaccine targets. Infection occurs when sporozoites are introduced into a human by an infected female mosquito (sporozoite stage). Within minutes of entering the bloodstream, the sporozoites migrate into the liver, where they remain for one to two weeks and undergo a maturation process (liver stage). Once the parasites have developed, the infected liver cells rupture, releasing the parasites into the bloodstream. There, the parasites infect red blood cells (blood stage). It is during this stage that the symptoms of malaria develop. After approximately ten days, some of the parasites develop into sexual forms (sexual stage), which can then be taken up by the female mosquito during her next blood meal. If the normal cycle continues, the parasites picked up from the infected person mature into sporozoites in the mosquito, and these sporozoites can be passed on to another individual, beginning the cycle again. At each stage of the malaria parasite life cycle, multiple antigens develop that interact with the human host's immune system, providing multiple potential targets for a malaria vaccine. Ideally, a vaccine would be effective against any stage of malaria.

### The Vaccine



































































































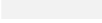
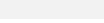
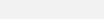
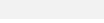
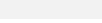
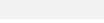
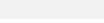
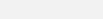
On October 6, the World Health Organization (WHO) approved the first historical vaccine that prevents malaria infections due to *Plasmodium falciparum* - Mosquirix, made by GlaxoSmithKline. This represents a major milestone, as malaria is among the oldest and deadliest known infectious diseases with a significant worldwide burden. Also this is the first anti-parasitic vaccine that has been rolled out, which represents a major technological leap as immune responses to parasites are much more complex than viruses or bacteria. In clinical trials, the vaccine had an efficacy of about 50% against severe malaria in the first year, although it dropped to zero in the fourth year, a limitation that has generated debate over its value. Success can be boosted by combining the vaccine with antimalarial drugs, potentially cutting deaths and hospitalisation by [over 70 percent](#). Mosquirix has already been administered to more than 800,000 children who have received more than 2.3 million doses following the clinical trials in Kenya, Malawi, and Ghana, where it has been incorporated into routine immunization programs. The new vaccine has been given in three doses between the ages of 5 and 17 months old, and a fourth dose roughly 18 months later. Importantly, approval by WHO is only one step to vaccination rollout. Efficacy, longevity of immunity, cost, and distribution will all be considerations in further approval, procurement, and adoption into vaccination programs in affected countries. Funding its distribution will depend on whether GAVI – the global vaccine initiative – determines it's a worthwhile investment. Another vaccine is potentially on the horizon. Developed by Oxford University and Novavax, it has demonstrated an efficacy of up to 77 percent in initial trials.

### Malaria parasite life cycle



# Summary of information on the individual national Corona restrictions

The icons are linked to the respective information. Please click on the icons for information.

NATO Member State		Health information	Vaccination news	Governmental information	NATO Member State		Health information	Vaccination news	Governmental information
	Albania					Latvia			
	Belgium					Lithuania			
	Bulgaria					Luxembourg			
	Canada					Montenegro			
	Croatia					Netherland			
	Czech Republic					North Macedonia			
	Denmark					Norway			
	Estonia					Poland			
	France					Portugal			
	Germany					Rumania			
	Great Britain					Slovakia			
	Greece					Slovenia			
	Hungary					Spain			
	Italy					Turkey			
	Iceland					USA			

# Travel Recommendations and other Useful Links

## Travel Recommendations

Many countries have halted some or all international travel since the onset of the COVID-19 pandemic but now have re-open travel some already closed public-travel again. This document outlines key considerations for national health authorities when considering or implementing the gradual return to international travel operations.

The decision-making process should be multisectoral and ensure coordination of the measures implemented by national and international transport authorities and other relevant sectors and be aligned with the overall national strategies for adjusting public health and social measures.

Travel has been shown to facilitate the spread of COVID-19 from affected to unaffected areas. Travel and trade restrictions during a public health event of international concern (PHEIC) are regulated under the International Health Regulations (IHR), part III.

The majority of measures taken by WHO Member States relate to the denial of entry of passengers from countries experiencing outbreaks, followed by flight suspensions, visa restrictions, border closures, and quarantine measures. Currently there are exceptions foreseen for travellers with an essential function or need.

**Information on COVID-19 testing and quarantine of air travellers in the EU and the US you can find following the link:**

- <https://www.ecdc.europa.eu/en/publications-data/guidelines-covid-19-testing-and-quarantine-air-travellers>
- <https://www.cdc.gov/coronavirus/2019-ncov/travelers/testing-air-travel.html>

**More information about traveling worldwide:**

- National regulation regarding travel restrictions, flight operation and screening for single countries you will find [here](#) (US) and [here](#) (EU).
- Official IATA travel restrictions. You will find [here](#).

**More information about traveling in the EU**

- by the **European Commission** you will find here:

<https://www.consilium.europa.eu/en/policies/coronavirus/covid-19-travel-and-transport/>

- The **ECDC** publishes a map of EU Member States, broken down by regions, which show the risk levels across the regions in Europe using a traffic light system. Find it [here](#).

As a general rule, information on new measures will be published 24 hours before they come into effect.

All information should also be made available on [Re-open EU](#), which should contain a cross-reference to the map published regularly by the European Centre for Disease Prevention and Control.

## Useful links

**ECDC:**

- [All info about the COVID-19 pandemic](#); (situation updates, latest news and reports, risk assessments etc.)
- [COVID-19 Vaccine tracker](#)
- [SARS-CoV-2 variants dashboard](#) for EU
- [Latest Risk assessment on COVID-19](#), 15 Feb 2021
- All “guidance’s and technical reports” can be found under “All COVID-19 outputs” on this page [here](#)

**WHO:**

- Epi-WIN [webinars and updates](#)
- Status of “[COVID-19 Vaccines within WHO](#) EUL/PQ evaluation process” and the “Draft landscape and tracker of [COVID-19 candidate vaccines](#)”
- Weekly [Epidemiological and operational updates](#)
- COVID-19 new variants: [Knowledge gaps and research](#)
- COVID-19 [Dashboard](#)
- [Vaccines explained](#)
- Tracking [SARS-CoV-2 variants](#)
- Science in 5: [WHO’s series on science and COVID-19](#)
- [Quick links](#)

**CDC:**

- COVID [Data Tracker](#) and [weekly review](#)
- [What’s new and Updated](#)
- [Guidance for COVID-19](#)

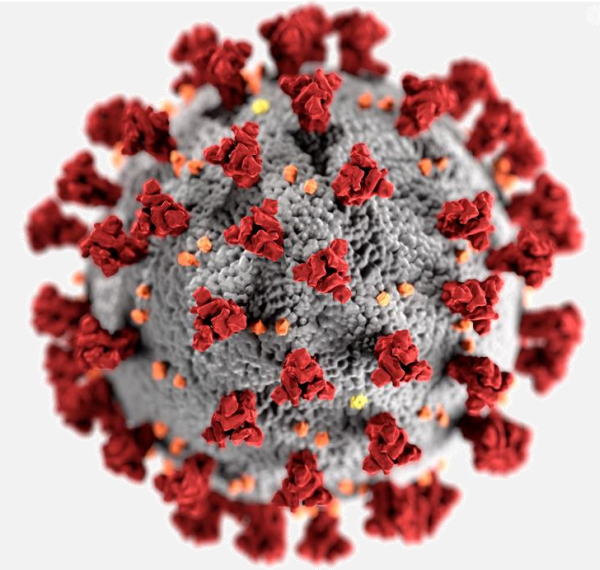
**References:**

- European Centre for Disease Prevention and Control [www.ecdc.europa.eu](http://www.ecdc.europa.eu)
- World Health Organization WHO; [www.who.int](http://www.who.int)
- Centres for Disease Control and Prevention CDC; [www.cdc.gov](http://www.cdc.gov)
- European Commission; [https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/travel-and-transportation-during-coronavirus-pandemic\\_en](https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/travel-and-transportation-during-coronavirus-pandemic_en)
- Our World in Data; <https://ourworldindata.org/coronavirus>
- Morgenpost; <https://interaktiv.morgenpost.de/corona-virus-karte-infektionen-deutschland-weltweit/>
- BlueDot; <https://bluedot.global/>



## Upcoming Events FHPB

We are happy to announce the;  
Force Health Protection Event:  
COVID-19; A retrospective look at a turbulent time



**When:** 3<sup>rd</sup> to 4<sup>th</sup> November 2021  
**Location:** Virtual event via Microsoft Office  
Teams platform  
**Registration:** Open 3<sup>rd</sup> May 2021  
**Link:** Registration [page](#)

