Force Health Protection Branch
NATO MilMed COE
Munich

Update 68
COVID-19
Coronavirus Disease
05th of May 2021

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GLOBAL
↗
154 023 911
Confirmed cases
138 100 000recovered
3 224 530 deaths

USA
(7-days incidence 101,6)
↘
32 367 394
confirmed cases
30 950 000 recovered
575 975 deaths

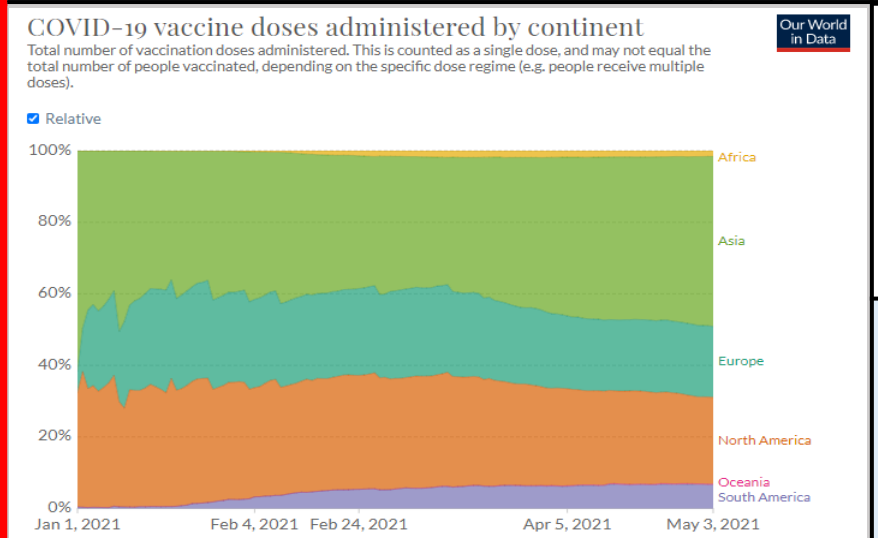
India
(7-days incidence 194,5)
↗
20 282 833
confirmed cases
14 830 000 recovered
222 408 deaths

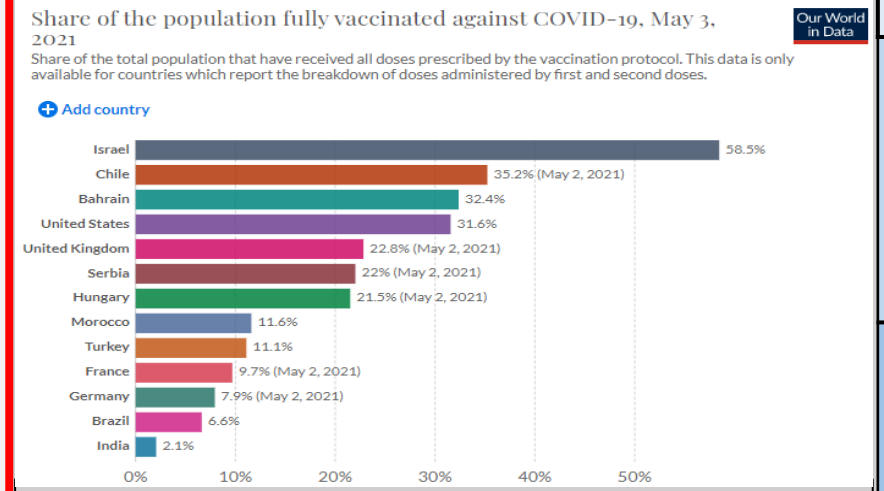
Brazil
(7-days incidence 194,0)
↗
14 856 888
confirmed cases
13 440 000 recovered
411 588 deaths

News:

- **EU**: The European Commission called on all Member States of the Union to regularly inspect waste water for coronaviruses in the future. Wastewater monitoring could provide cost-effective, fast and reliable information on the spread of the virus and virus variants in the population.
- **WHO/UNICEF**: Released the new WASH report that sets out recommendations for monitoring the affordability of access to water, sanitation and hygiene, as COVID-19 brings new urgency to the issue.
- **WHO:** As of 30 April WHO listed the Moderna COVID-19 vaccine (mRNA 1273) for emergency use, making it the fifth vaccine to receive emergency validation from WHO. The US FDA issued an emergency use authorization for the Moderna vaccine on 18 December 2020 and a marketing authorisation valid throughout the EU was granted by the EMA on 6 January 2021.
- **COVAX:** Urgently needs 20 million doses during the second quarter of 2021 to cover interruptions in supply triggered by increased demands for vaccines in India where COVAX's main supplier of the AstraZeneca product is based.
- **WHO**: Released the new COVID-19 Science Update on 30 April. The updates contain new studies on COVID-19.
- **ECDC:** Published a guidance for representative and targeted genomic SARS-CoV-2 monitoring , and an technical report on the Considerations for the use of saliva as sample material for COVID-19 testing.
- **EMA:** EMA starts evaluating the use of COVID-19 vaccine Comirnaty in young people aged 12 to 15 .
- **UNICEF**: Calls on the international community to intervene in the disaster in South-East Asia.

- **Topics:**
- Global situation
- European situation
- **Country report:** Humanitarian catastrophe in India
- Vaccination news
- SARS-CoV-2 variants of concern
- **Subject in Focus:** Efficacy of COVID-19 Vaccinations
- **Conflict & Health:** Update Ukraine
- **NATO Member State:** Summary of information on the individual national Corona restrictions
- Upcoming FHP Event





EUROPE
↘
50 074 002
confirmed cases
46 180 000 recovered
1 066 315 deaths

France
(7-days incidence 217,8)
↘
5 680 378
confirmed cases
5 165 000 recovered
105 387 deaths

TUR
(7-days incidence 262,8)
↘
4 929 118
confirmed cases
4 243 000 recovered
41 527 deaths

Russia
(7-days incidence 40,4)
→
4 784 497
confirmed cases
4 540 000 recovered
109 670 deaths

Global Situation

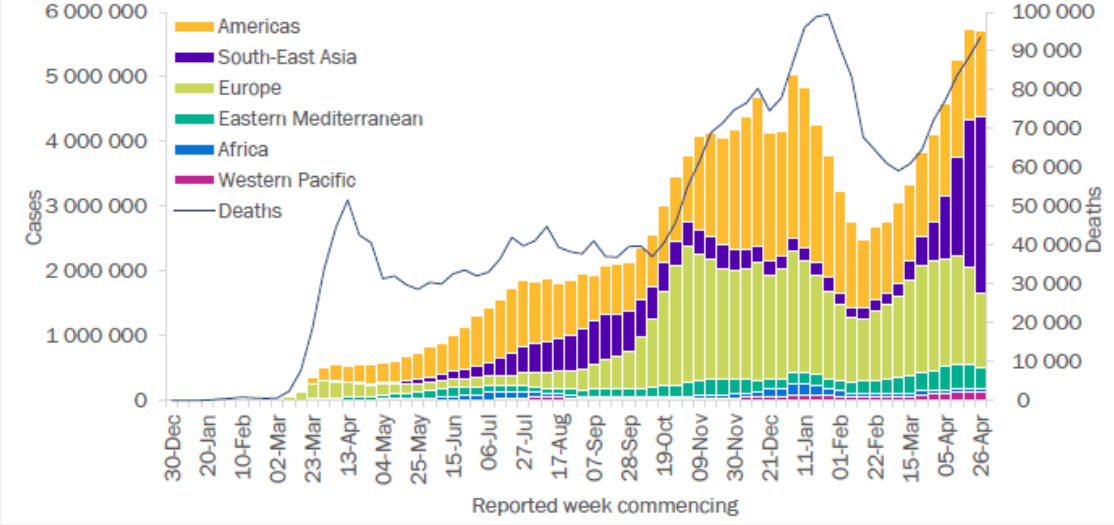
Global epidemiological situation overview; WHO as of 02 May 2021

For the second successive week, the number of COVID-19 cases globally remains at the highest levels since the beginning of the pandemic with over 5.7 million new weekly cases, following nine consecutive weeks of increases (Figure 1). New deaths continue to increase for the seventh consecutive week, with over 93 000 deaths. The South-East Asia Region continues to report marked increases in both case and death incidences (Table 1). India accounts for over 90% of both cases and deaths in the region, as well as 46% of global cases and 25% of global deaths reported in the past week. Case incidence in the regions of Europe, Eastern Mediterranean, Africa and the Americas decreased, while rates in the Western Pacific Region were comparable to the previous week. The number of deaths decreased in Europe, Africa and the Western Pacific region, while slight increases were reported in the Americas and Eastern Mediterranean regions.

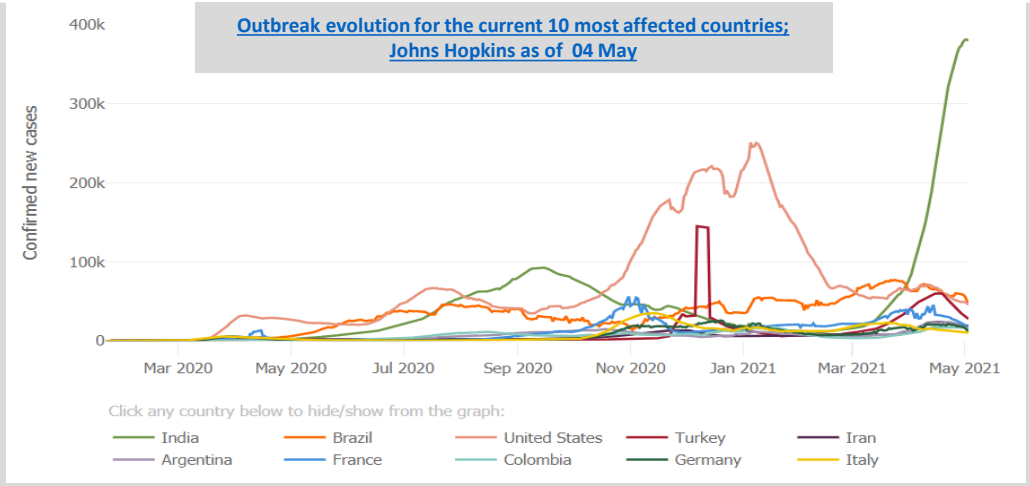
In the past week, the five countries reporting the highest number of new cases were:

- **India;** reporting 2 597 285 cases, a 20% increase,
- **Brazil;** reporting 421 933 cases, a 4% increase
- **United States of America;** reporting 345 692 cases, a 15% decrease,
- **Turkey;** reporting 257 992 cases, a 32% decrease and
- **France;** reporting 163 666 cases, 23% decrease.

Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 2 May 2021**



Source: https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---4-may-2021



USA: Due to the devastating corona crisis in India, the US government has imposed an entry ban. The measure came into effect on Tuesday and is indefinite. This applies to people who have been in India in the previous 14 days. This does not apply to US citizens, foreigners with permanent right of residence in the US, diplomats and certain other groups of people. Furthermore, due to the pandemic, there is in principle an entry ban for foreigners from the European Schengen area, Great Britain, Ireland, China, Brazil, South Africa and Iran.

ISR: For the first time since the beginning of the Corona pandemic in Israel, there is no longer a single case of infection in the country's army. The vast majority of soldiers are vaccinated against the disease.

IND/Pfizer: Pfizer plans to donate more than 70 million dollars worth of drugs to India in the face of the fierce Corona wave. There are also talks between Pfizer and the Indian government to possibly allow the vaccine more quickly in the world's largest democracy. So far, around ten percent of people in India have received at least one vaccine. Nearly two percent are fully vaccinated.

CHN: Nearly a year and a half after the coronavirus outbreak, May 1st has given a taste of life after the pandemic. Millions of people travelled across the country on Labor Day. The Chinese authorities expected about 265 million travellers during the five-day holiday. Such high numbers of travel figures were last seen in the People's Republic two years ago. Countless people crowded at attractions, places of excursion and in restaurants, many of them without protective masks.

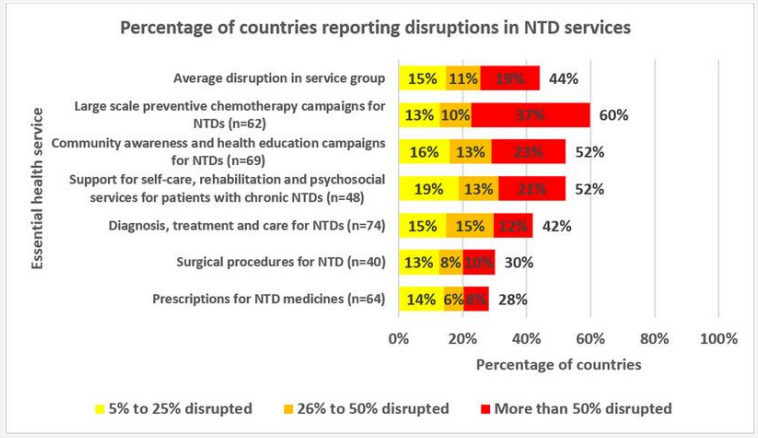
AUS: The state of New South Wales, recorded the first infection with the Coronavirus in more than a month this week.

Global Situation

Neglected Tropical Diseases (NTD); WHO pulse survey

The latest WHO 'pulse survey', conducted in almost 135 countries, shows that the SARS-CoV-2 pandemic continues to severely disrupt the delivery of health services – with services for NTDs disrupted in 44% of countries.

Due to the potential transmission of SARS-CoV-2 associated with the delivery of large-scale treatment programmes, other public health approaches for NTDs are also considerably affected. These include vector control, veterinary public health, and water, sanitation and health education activities (in addition to population-based surveys for mapping, monitoring and evaluation).



Consequences for NTDs

Despite these measures, COVID-19 can result in increased NTD burden, in terms of both mortality and morbidity. This can, in turn, cause delays in the achievement of public health goals – including elimination as a public health problem and eradication of Guinea-worm disease and yaws by 2030.

In terms of clinical outcomes, the impact of COVID-19 on NTDs is overwhelming, since the prognosis of COVID-19 can be more severe in people suffering from chronic NTD manifestations. Example includes:

- people with chronic Chagas disease develop cardiac complications, meaning coinfection with SARS-CoV-2 is more likely to be life-threatening;
- soil-transmitted helminthiasis can result in anaemia, which renders millions of affected individuals (particularly children and pregnant women) vulnerable to severe COVID-19 outcomes;
- overlaps in clinical presentation between dengue and COVID-19 may mislead diagnosis and public health systems;
- cases of false-positive dengue serology due to COVID-19 may lead to confusion and the overwhelming of health systems, in places where COVID-19 and dengue are both endemic.

When responding to COVID-19, many countries are having to make important decisions, often involving the repurposing of staff and suspension of services. Nevertheless, many NTD interventions are gradually resuming in an entirely changed public health landscape.

EU study on VOC

A study coordinated by ECDC together with seven EU countries – Cyprus, Estonia, Finland, Ireland, Italy, Luxembourg, and Portugal – analysed data on the three VOC reported by the collaborating countries, and the research shows a higher risk for hospitalisation and intensive care admission.

The analysis of 19 995 VOC and 3 348 non-VOC cases suggests that the VOC pose a higher risk for developing severe diseases. Compared to cases infected with a non-VOC virus, the risk for hospitalisation in B.1.1.7 cases was 1.7 times higher, while in B.1.351 it was 3.6 times higher and for P.1 it was 2.6 times higher.

The study also showed an increased risk of being admitted to intensive care by 2.3, 3.3 and 2.2 times higher for people infected by B.1.1.7, B.1.351 and P.1 respectively, compared to non-VOC cases.

Source: https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2021.26.16.2100348#figuresntables

ECDC new technical report: Considerations for the use of saliva as sample material for COVID-19 testing:

The document outlines the use of saliva as a diagnostic sample for detecting SARS-CoV-2 infection, considering the advantages, limitations and uncertainties associated with the use of saliva as sample material.

- **Nasopharyngeal specimens** remain the **gold standard** for COVID-19 testing for use with RT-PCR and rapid antigen diagnostic tests.
- Studies on the performance of RT-PCR tests have variously reported both higher and lower sensitivity for saliva samples compared with nasopharyngeal swabs. However, **meta-analyses** of such studies suggest an overall similar or **non-statistically significant lower sensitivity** associated with the use of saliva samples.
- The reported heterogeneity is likely to, in part, reflect differences in sampling techniques, sampling times and the type of population being tested, with evidence that RT-PCR tests with saliva as sample material show similar sensitivity to those using nasopharyngeal swabs for symptomatic patients, if the sample collection is performed within the first five days from onset of symptoms, and when the viral load is high.
- Saliva sample collection is easy, non-invasive, more acceptable for repeat testing and can be performed by non-healthcare professionals or individuals themselves who are properly instructed.
- Evidence supports the conclusion that saliva can be used as an **alternative sample material** for RT-PCR testing when nasopharyngeal swabs cannot be collected in the following scenarios: in symptomatic patients and for repeated screening of asymptomatic individuals.
- Further clinical studies are warranted on the sensitivity of saliva as sample material for RT-PCR analysis for symptomatic and asymptomatic children, and to standardise the sampling collection methods.
- Current limited evidence **does not support** the use of saliva as an alternative sample material **for rapid antigen or antibody tests**. Further clinical validation studies on the different available tests are needed.

Source: https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-use-saliva-sample-material-testing.pdf

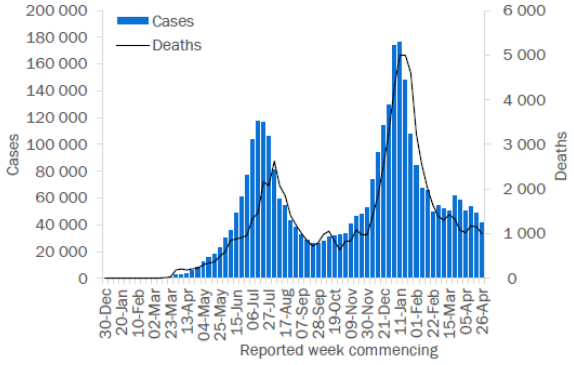
Situation by WHO Region, as of 4th May

WHO regional overviews

African Region

The African Region reported over 42 000 new cases and 1000 new deaths, a 15% and a 13% decrease respectively compared to the previous week. Overall, cases and deaths trended downward since peaking in mid-January 2021; however, countries throughout the Region continue to report sustained transmission and increases in some areas. The highest numbers of new cases were reported from South Africa (8472 new cases; 14.3 new cases per 100 000 population; a 3% decrease), Ethiopia (7107 new cases; 6.2 new cases per 100 000; a 34% decrease), and Cameroon (4609 new cases; 17.4 new cases per 100 000; an 8% increase).

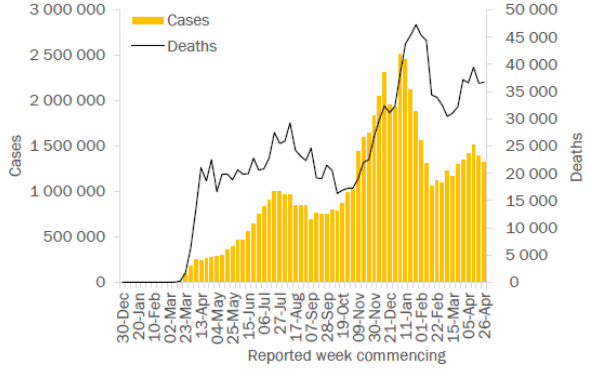
The highest numbers of new deaths were reported from South Africa (281 new deaths; 0.5 new deaths per 100 000 population; a 32% decrease), Ethiopia (178 new deaths; 0.2 new deaths per 100 000; a 12% decrease), and Kenya (141 new deaths; 0.3 new deaths per 100 000; a 1% increase).



Region of the Americas

The Region of the Americas reported over 1.3 million new cases and over 36 000 new deaths, a 5% decrease and a 1% increase respectively compared to the previous week. Case incidence has decreased for a second consecutive week. The highest numbers of new cases were reported from Brazil (421 933 new cases; 198.5 new cases per 100 000; a 4% increase), the United States of America (345 692 new cases; 104.4 new cases per 100 000; a 15% decrease), and Argentina (152 711 new cases; 337.9 new cases per 100 000; an 8% decrease). These three countries account for 69% of cases reported in the region this week.

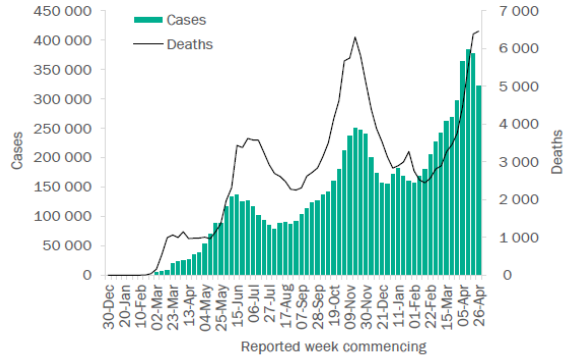
The highest numbers of new deaths were reported from Brazil (17 365 new deaths; 8.2 new deaths per 100 000; a 2% decrease), the United States of America (4728 new deaths; 1.4 new deaths per 100 000; a 5% decrease), and Colombia (3274 new deaths; 6.4 new deaths per 100 000; a 14% increase).



Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 324 000 new cases and over 6400 new deaths, a 14% decrease and a 1% increase respectively compared to the previous week. The number of cases has decreased for a second consecutive week, while deaths continue to increase for a tenth consecutive week. The highest numbers of new cases were reported from the Islamic Republic of Iran (139 118 new cases; 165.6 new cases per 100 000; a 14% decrease), Iraq (45 078 new cases; 112.1 new cases per 100 000; a 17% decrease), and Pakistan (35 503 new cases; 16.1 new cases per 100 000; an 11% decrease).

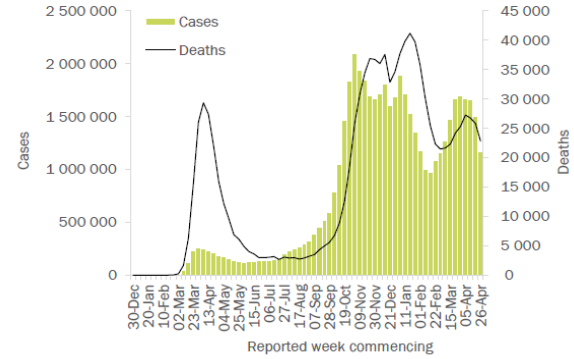
The highest numbers of new deaths were reported from the Islamic Republic of Iran (2970 new deaths; 3.5 new deaths per 100 000; a 6% increase), Pakistan (958 new deaths; 0.4 new deaths per 100 000; a 6% increase), and Tunisia (577 new deaths; 4.9 new deaths per 100 000; a 12% increase).



European Region

The European Region reported over 1.1 million new cases and over 22 000 new deaths, a marked 22% and a 12% decrease respectively compared to the previous week. Cases have decreased for a fourth consecutive week, and deaths have also decreased for a third consecutive week. The highest numbers of new cases were reported from Turkey (257 992 new cases; 305.9 new cases per 100 000; a 32% decrease), France (163 666 new cases; 251.6 new cases per 100 000; a 23% decrease), and Germany (129 404 new cases; 155.6 new cases per 100 000; an 11% decrease).

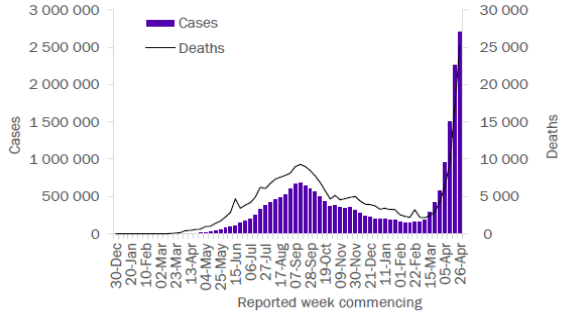
The highest numbers of new deaths were reported from Poland (2653 new deaths; 7.0 new deaths per 100 000; a 22% decrease), the Russian Federation (2630 new deaths; 1.8 new deaths per 100 000; a 1% decrease), and Turkey (2493 new deaths; 3.0 new deaths per 100 000; a 4% increase).



South-East Asia Region

The South-East Asia Region reported over 2.7 million new cases and over 25 000 new deaths, a 19% and a 48% increase respectively compared to the previous week. India is currently driving the vast majority of this upward trend; however, notable increases have also been observed elsewhere in the region, for example in Nepal and Sri Lanka. Among ten countries which have reported cases in this region, eight countries reported an increase in case incidence this week. The highest numbers of new cases were reported from India (2 597 285 new cases; 188.2 new cases per 100 000; a 20% increase), Indonesia (36 088 new cases; 13.2 new cases per 100 000; a 3% decrease), and Nepal (31 806 new cases; 109.2 new cases per 100 000; a 137% increase).

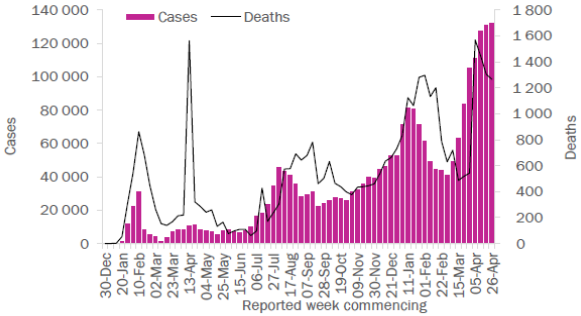
The highest numbers of new deaths were reported from India (23 231 new deaths; 1.7 new deaths per 100 000; a 53% increase), Indonesia (1152 new deaths; 0.4 new deaths per 100 000; a 2% decrease), and Bangladesh (558 new deaths; 0.3 new deaths per 100 000; a 17% decrease).



Western Pacific Region

The Western Pacific Region reported over 132 000 new cases and over 1200 new deaths, a 1% increase and a 3% decrease respectively compared to the previous week. Case incidence continued an upward trend which has been reported for the past eight weeks, while deaths decreased for a third consecutive week. The highest numbers of new cases were reported from the Philippines (57 238 new cases; 52.2 new cases per 100 000; a 10% decrease), Japan (35 084 new cases; 27.7 new cases per 100 000; a 9% increase), and Malaysia (21 342 new cases; 65.9 new cases per 100 000; a 23% increase).

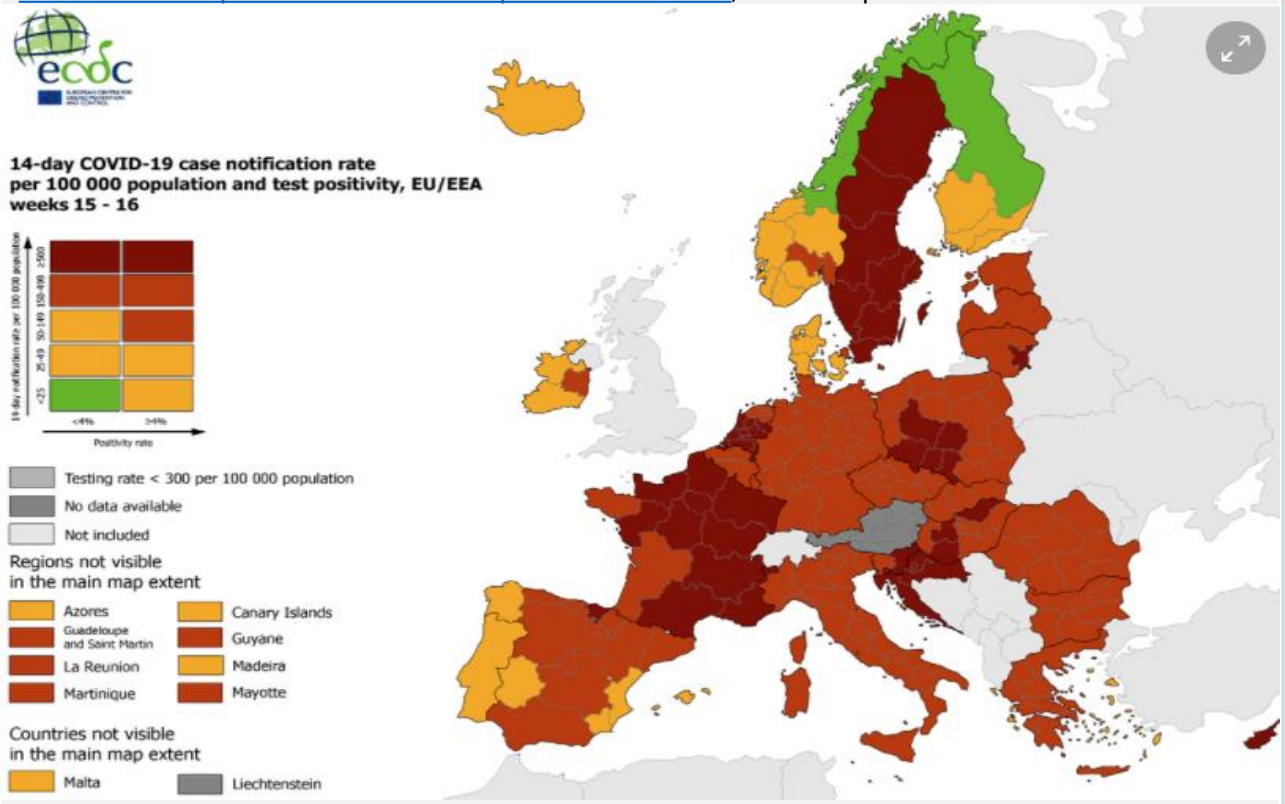
The highest numbers of new deaths were reported from the Philippines (680 new deaths; 0.6 new deaths per 100 000; a 21% decrease), Japan (383 new deaths; 0.3 new deaths per 100 000; a 32% increase), and Malaysia (95 new deaths; 0.3 new deaths per 100 000; a 70% increase).

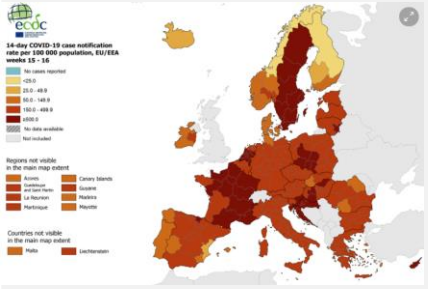


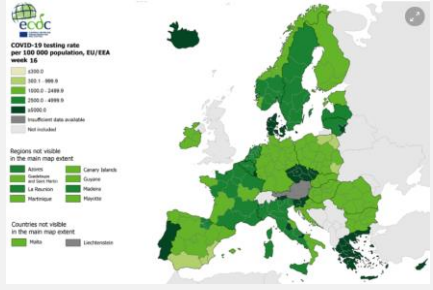
Source: https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---4-may-2021

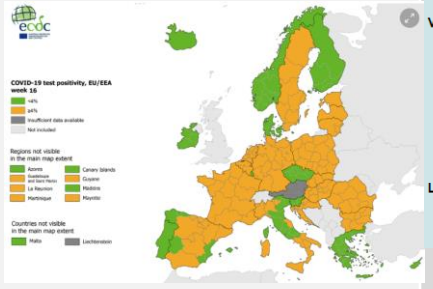
European Situation

[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 29 April 2021









14-day case notification rate per 100 000 inhabitants | Testing rates per 100 000 inhabitants | Positivity rates

[ECDC COVID-19 surveillance report Week 16](), as of 30 April 2021

Weekly surveillance summary

Overall situation

By the end of week 16 (week ending Sunday 25 April 2021), seven countries in the European Union/European Economic Area (EU/EEA) had reported increasing case notification rates and/or test positivity. Case rates in older age groups had increased in two countries, while four countries reported increasing hospital or intensive care unit (ICU) admissions and/or increasing occupancy due to COVID-19, and six countries reported increasing death rates. Absolute values of several indicators, including for hospital and ICU occupancy, remain high, suggesting widespread transmission. However, trends for a number of indicators are stable or decreasing in several countries.

Recent changes to the report

Country level figures showing age-specific vaccine uptake aligned with key epidemiological indicators (age-specific case and death rates, hospital/ICU occupancy and admissions due to COVID-19).

Trends in reported cases and testing

- By the end of week 16, the 14-day case notification rate for the EU/EEA, based on data collected by ECDC from official national sources in 30 countries, was 396 (country range: 44-1 221) per 100 000 population. The rate has been decreasing for three weeks.
- Among the 29 countries with high case notification rates (at least 60 per 100 000 population), increases were observed in six countries (Croatia, Cyprus, Germany, Latvia, Lithuania and the Netherlands). Stable or decreasing trends in case rates of 1–7 weeks' duration were observed in 23 countries (Austria, Belgium, Bulgaria, Czechia, Denmark, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Liechtenstein, Luxembourg, Malta, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden).
- Based on data reported to The European Surveillance System (TESSy) from 22 countries for people over 65 years of age, high levels (at least 60 per 100 000 population) or increases in the 14-day COVID-19 case notification rates compared with last week were observed in 18 countries (Belgium, Cyprus, Czechia, Denmark, Estonia, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Romania, Slovenia and Spain).
- Notification rates are dependent on several factors, one of which is the testing rate. Weekly testing rates for week 16, available for 27 countries, varied from 1 040 to 47 567 tests per 100 000 population. Cyprus had the highest testing rate for week 16, followed by Greece, Czechia, Slovenia and Luxembourg.
- Among 16 countries in which weekly test positivity was high (at least 3%), no countries had observed an increase in test positivity compared with the previous week. Test positivity remained stable or had decreased in 16 countries (Belgium, Bulgaria, Croatia, Estonia, France, Germany, Hungary, Italy, Latvia, Lithuania, the Netherlands, Poland, Romania, Slovakia, Spain and Sweden).

Hospitalisation and ICU

- Pooled data from 24 countries for week 16 show that there were 12.2 patients per 100 000 population in hospital due to COVID-19. According to weekly hospital admissions data pooled from 19 countries, new admissions were 9.0 per 100 000 population.
- Pooled data from 18 countries for week 16 show that there were 2.4 patients per 100 000 population in ICU due to COVID-19. Pooled weekly ICU admissions based on data from 15 countries show that there were 3.1 new admissions per 100 000 population.
- Hospital and/or ICU occupancy and/or new admissions due to COVID-19 were high (at least 25% of the peak level during the pandemic) or had increased compared with the previous week in 26 countries (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Romania, Slovakia, Slovenia and Sweden). No other increases have been observed, although data availability varies.

Mortality

- The 14-day COVID-19 death rate for the EU/EEA, based on data collected by ECDC from official national sources for 30 countries, was 73.1 (country range: 0.0-316.6) per million population. The rate has been stable for eight weeks.
- Among 25 countries with high 14-day COVID-19 death rates (at least 10 per million), increases were observed in four countries (Croatia, Liechtenstein, Malta and Slovenia). Stable or decreasing trends in death rates of 1–5 weeks' duration were observed in 21 countries (Austria, Belgium, Bulgaria, Cyprus, Czechia, Estonia, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Poland, Romania, Slovakia, Spain and Sweden).

Variants of concern

- Sequencing capacity varies greatly across the EU/EEA; 12 EU/EEA countries (Belgium, Denmark, Estonia, France, Germany, Hungary, Iceland, Ireland, Lithuania, Luxembourg, Norway and Sweden) met the recommended level of 10% or 500 sequences of SARS-CoV-2-positive cases sequenced and reported to the GISAID EpiCoV database by 27 April 2021 or to TESSy by 25 April 2021 (data referring to the period from 5 April to 18 April 2021). During the same period, nine countries sequenced and reported between 60 and 499 samples, while nine countries sequenced and reported <60 samples or did not report data.
- Among the 12 countries with the recommended level of 10% or 500 sequences reported per week in the period from 5 April to 18 April 2021, 11 had a valid denominator. The median (range) of the variants of concern in all samples sequenced in the period in these 11 countries was 90.1% (28.4–96.9%) for B.1.1.7, 1.7% (0.0–10.7%) for B.1.351 and 0.2% (0.0–11.8%) for P.1.

Long-term care facilities (LTCFs)

- Based on data reported to TESSy from four countries (France, Ireland, Lithuania and the Netherlands), in week 16, the pooled incidence of COVID-19 cases among LTCF residents was 169.4 per 100 000 LTCF beds, the pooled incidence of fatal COVID-19 cases was 11.3 per 100 000 LTCF beds, and 7.9% of participating LTCFs reported one or more new COVID-19 cases among their residents.

European Situation

NLD: In view of the continuing high number of infections, the planned relaxation of the Corona protection measures will be suspended for the time being. The facilitation of open-air areas - including zoos, amusement parks and sports facilities - as part of an opening plan from 11 May would be postponed. A relaxation from 18 May is to be examined.

FRA: The first major stage of Corona easing has begun. During the day, people are allowed to travel more than ten kilometres from their homes. Travel to other regions is also allowed again. However, the nightly curfew from 7 p.m. will remain in place until mid-May. From 19 May, outdoor areas of restaurants, shops and cultural facilities will be allowed to reopen. Further easing is expected to follow in June. An emergency brake is introduced. It is intended to take into account various factors such as the utilization of intensive care units and provides for a seven-day incidence of 400 as a guideline.

GBR: A live concert in front of 5000 spectators took place in Liverpool on Sunday, with several artists performing in a festival tent. The event - as well as two club nights in Liverpool with several thousand guests - is part of a pilot project to explore how major events can take place again in times of the fading pandemic. All present must complete a health questionnaire before admission and present a negative corona test that is no more than 24 hours old. Inside, the masks may then be removed, there is no obligation to distance themselves in the tent.

ITA: After more than four months of forced break, the Italian shipping company Costa has resumed its cruises. On Saturday evening, the flagship "Costa Smeralda" set sail from Liguria. The ship left the port of Savona with only 1500 passengers on board - a quarter of its actual capacity. All crew members and guests had to take a Corona test before they were allowed on the ship. In addition, mask wear is mandatory on board.

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According to government data, foreign tourists are to be allowed back into the country from mid-May. With an Italian health passport, holidaymakers from abroad should also be able to travel between the different Italian regions.

POR: In view of the declining number of infections, the fourth and final phase of easing corona measures has begun. Cafes, restaurants and cultural facilities are now allowed to be open longer every day, weddings and other gatherings are allowed again, as well as sporting events. The borders with Spain have also been reopened.

HUN: As of Saturday, relaxations apply to vaccinated and convalescent people. A prerequisite, however, is proof of immunity, which must be shown in restaurants, hotels, cinemas, fitness studios and museums. The possible opening times of the facilities have been extended to 11 p.m., and the night curfew does not begin until midnight. All vaccinated persons and people who have survived an infection with the coronavirus are entitled to proof of immunity in the form of a plastic card. The card must be presented before entering a store. Owners face heavy fines if they let people in without proof. Children accompanied by an adult with proof of immunity are allowed to enter without their own card.

COVID-19 Vaccine roll-out overview EU, as of 25 April 2021

Key figures on the vaccine rollout in the EU/EEA as of week 16, 2021 (25 April 2021)

Total doses distributed and administered

Total number of vaccine doses distributed by manufacturers to EU/EEA countries: 151 963 879 (29 countries reporting)

Median number of vaccine doses distributed by manufacturers to EU/EEA countries per hundred inhabitants: 40.6 (range: 19.7–78.1) (29 countries reporting)

Total number of vaccine doses administered: 133 269 691 (30 countries reporting)

Cumulative vaccine uptake in adults

Cumulative uptake of at least one vaccine dose among adults aged 18 years and above: median of 26.3% (range: 9.7–44.6%) (30 countries reporting)

Cumulative uptake of full vaccination among adults aged 18 years and above: median of 9.8% (range: 2.4–21.2%) (30 countries reporting)

Cumulative vaccine uptake in target groups

Cumulative uptake of at least one vaccine dose among persons aged 80 years and above: median of 77.3% (range: 9.2–100%) (24 countries reporting)

Cumulative uptake of full vaccination among persons aged 80 years and above: median of 53.8% (range: 1.5–97.7%) (24 countries reporting)

Cumulative uptake of at least one vaccine dose among healthcare workers: median of 76.7% (range: 20.1–100%) (16 countries reporting)

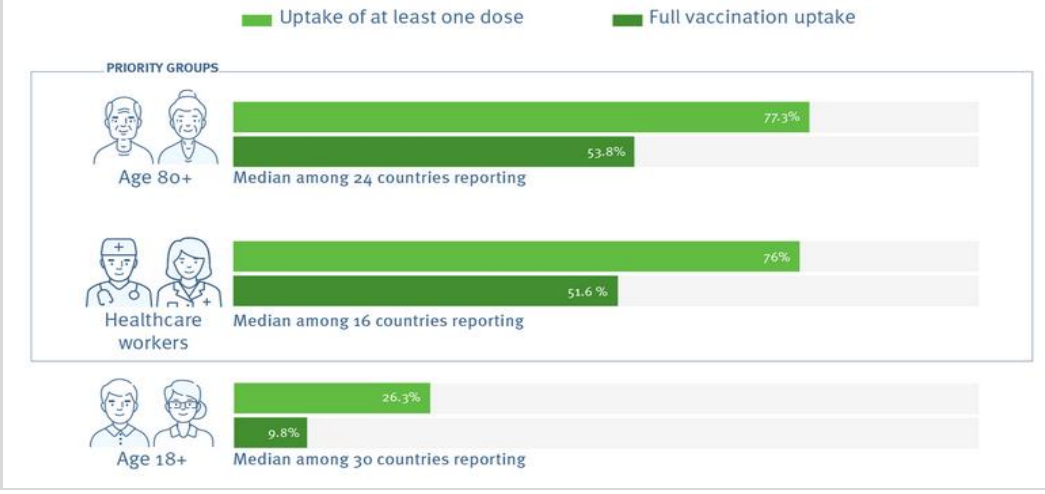
Cumulative uptake of full vaccination among healthcare workers: median of 51.6% (range: 16.4–100%) (16 countries reporting)

Cumulative uptake of at least one vaccine dose among residents of long-term care facilities: median of 76% (range: 31.3–100%) (11 countries reporting)

Cumulative uptake of full vaccination among residents of long-term care facilities: median of 62.5% (range: 19–100%) (11 countries reporting)

For the list of countries reporting data for each indicator, see section 5

COViD-19 vaccination in EU/EEA countries
Key data as of 25 April 2021



Sources:
https://www.covid19india.org/
https://www.bbc.com/news/world-asia-india-56891016
https://www.nytimes.com/interactive/2020/world/asia/india-coronavirus-cases.html

Country report:
Humanitarian catastrophe in India

On Tuesday the number of corona infections in India exceeded the 20 million threshold, almost doubling in three months. The death toll exceeds 220,000 as a second wave of infections continues to paralyze the world's second-most populous country.

The increase in coronavirus cases is attributed to more contagious variants of the pathogen and to the government's decision to allow mass events, especially campaign rallies and religious festivals. In no country in the world is the number of daily infections increasing faster than in India. Multiple states in India will go into "complete lockdown" in the coming days.

Worldwide states and institutions have since sent emergency aid to the country.

Variants/Mutations

On 25 March India announced that a new variant of the coronavirus had been detected from samples collected from different states.
The new variant, has two changes to a surface protein, thus explaining the term "double mutation" These mutations are already known in other variants. Here, however, they appear together as a "double“ mutation. The changes are found in the spike protein responsible for binding to human cells at locations E484Q and L452R. According to Experts, these mutations could be "associated with reduced neutralizability by antibodies or T cells whose extent is not clear," which is why, according to initial estimates, this virus is likely to be more contagious than the original type. Experts also fear that the variant could be resistant to most vaccines. However, experts also expressed optimism about the next generation of vaccines. According to this, "a slight update" of the existing vaccines could probably be enough to be able to detect "most immunoescape mutants" "with little effort".
But it needs to be noted, as things stand there is still not enough evidence to determine any causal relationship with India's deadly second wave, and the variant is not currently listed by the WHO and other international and national institution as a "variant of concern“.

International aid and foreclosure

In view of the dramatic development of the coronavirus spread in India, offers of help have come from all over the world in recent days. The U.S. on Sunday pledged to supply raw materials for the production of the AstraZeneca vaccine, drugs, ventilators and rapid testing.
French President Emmanuel Macron, British Prime Minister Boris Johnson and German Chancellor Angela Merkel said their countries primarily want to deliver ventilators to India. Many more countries and institutions want to help or have already sent people or goods for support.

Concerns for the world health

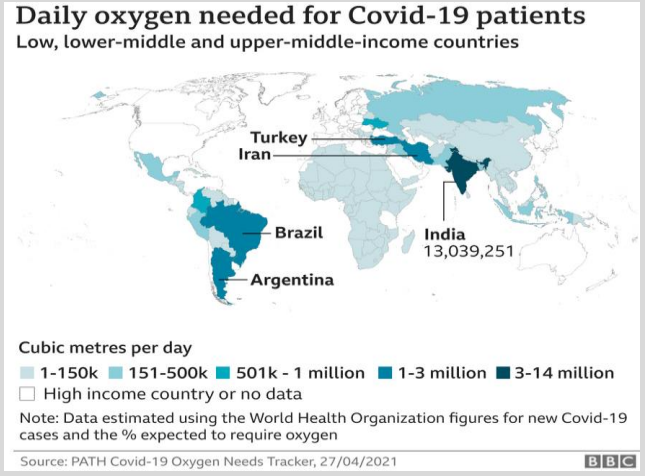
India is the world's largest producer of vaccines. The Indian company Serum Institute manufactures the active ingredient of AstraZeneca under license and is one of the largest suppliers of the WHO Covax initiative. Due to the current infection situation in the country, the Indian government ordered an export ban on vaccines against COVID-19. This ban could lead to serious problems in the distribution of vaccines all over the world and especially for developing countries.

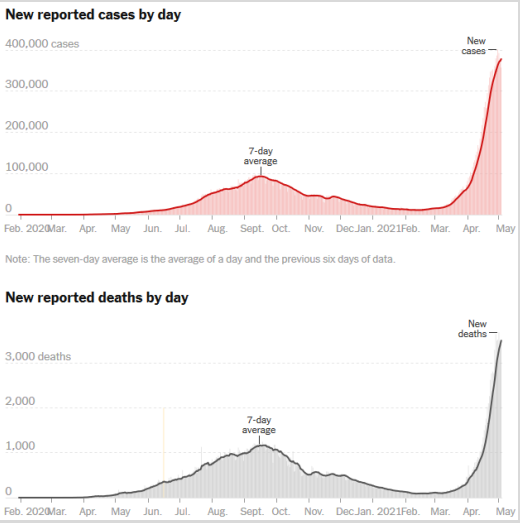
Still no light at the end of the tunnel

Case numbers and deaths in India are continuing to rise fast, fuelled by the new variant, sanitary and hygiene conditions, health status problems and overcrowding. On Tuesday India reported more than 300 000 new COVID-19 cases in 24 hours for the 13th day in a row and the daily death toll due to COVID-19 too continue to stay over 3,000 for the seventh consecutive day. But the true numbers of cases and deaths are likely to be higher than the numbers provided by authorities, with many people avoiding testing or struggling to access it. Many deaths in rural areas also go unregistered. Testing is increasing, but so too are the number of positive results. Another problem is, that so far, only around ten percent of people in India have received at least one vaccine. Nearly two percent are fully vaccinated. Since the weekend, all adults are allowed to be vaccinated. However, the vaccines are still very scarce.

There are very few critical care beds

As coronavirus cases spiral in India, the country's health care system has been stretched beyond breaking point. Beds, oxygen and medical workers are in short supply. Some COVID patients are dying in waiting rooms or outside overwhelmed clinics, before they have even been seen by a doctor.

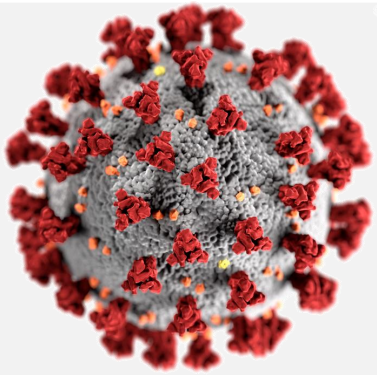




Crematoriums are organising mass funeral pyres

Many people are being forced to turn to makeshift facilities for mass burials and cremations as India's funeral services become overwhelmed.
At least one facility in Delhi has resorted to building pyres in its car park in order to cope with the number of bodies. Other sites are holding mass cremations, with staff reportedly working day and night in several cities.

Vacination news



EMA: Has started a rolling review of COVID-19 Vaccine (Vero Cell) Inactivated, developed by the Chineses Sinovac Life Sciences Co. The decision was based on "preliminary results of laboratory studies" as well as on clinical studies.

The EU has started supplying COVID vaccines to the Balkans. From May to August, a total of 651,000 doses of the BioNTech and Pfizer vaccine will be delivered to Serbia, Bosnia, Northern Macedonia, Montenegro, Albania and Kosovo. The vaccines are funded by the EU.

Moderna: Up to 500 million doses of the vaccine are to be delivered to COVAX. Of these, 34 million doses are expected to arrive in the fourth quarter of 2021, with a further 466 million doses an option for 2022. All doses of vaccination would be offered at the lowest price of the tiered price system.

BioNTech: Has applied for approval of his corona vaccine for children and adolescents in the EU through the EMA.

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According to the study by Imperial College a single dose of the Pfizer / BioNTech vaccine may not protect against the new variants of the virus in those who have not had the disease. The study examined healthcare workers and determined that those who had the disease mounted a good response after one dose of vaccine but those who were disease 'naieve' did not. The vaccine should be given in two doses with an interval of several weeks.

Novavax: The pharmaceutical company has begun clinical trials of its vaccine with children. 3000 children and young people between the ages of 12 and 17 are to take part. Novavax's vaccine has not yet been approved in any country in the world, however, the company says it plans to apply for emergency approval in the UK in the second quarter of 2021, followed by the US. Studies in adults have shown 89.3 percent efficacy of the vaccine candidate.

SWE: Will share 1 million doses of the AstraZeneca vaccine with the COVAX Facility to provide life-saving vaccines to people at risk from COVID-19 in low income countries

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GBR: Every citizen over the age of 50 should receive an offer for a third coronavirus vaccination from autumn. There are two options for this. Either they will work with previously modified vaccines, which are also effective against new variants, or the third vaccination will be carried out with the vaccines already developed by Pfizer-BioNTech, AstraZeneca or Moderna.

ISR: For the first time in almost ten months, the number of Corona seriously ill people has fallen below the 100 mark. According to data from the Ministry of Health, 97 people are currently classified as seriously ill. 63 need ventilation. Within 24 hours, 51 new cases were reported, according to ministry data. Only 0.2 percent of nearly 29,000 tests were positive.

SYR: A United Nations vaccination campaign against the coronavirus has begun in the last remaining rebel area in Syria. The number of new infections has recently increased significantly, while hospitals are struggling to adequately care for the many patients. Approximately 54,000 doses of AstraZenca's vaccine from the COVAX program will be vaccinated.

TUR: The Russian corona vaccine Sputnik V has been granted emergency approval. It is the third approved vaccine after Biontech and Sinovac from China. The country is expected to receive 50 million doses of the vaccine within the next six months. Furthermore, the production of Sputnik V in Turkey is to start in a few months.

ZAF: Received the first delivery (325,260 doses) of the BioNTech vaccine. By the end of June, almost 4.5 million doses will be available. The country also expects 31 million doses of Johnson & Johnson's vaccine. So far, just over 317,000 of the 1.2 million health workers in South Africa have been vaccinated.

BRA: According to media reports, more than half of the capitals of the states in Brazil do not have enough vaccine to guarantee all citizens a timely second vaccination.

CHL: People between the ages of 35 and 45 are expected to be vaccinated within the next two weeks. This is possible because of a new contract for the supply of three million additional vaccine vials from the Chinese company Sinovac. Chile ranks among the world's fully vaccinated population with around 35 percent.

RUS: Vaccinations continue to be slow. This is due to both scepticism and poor supply of vaccines in some regions. So far, about six percent of the population has been fully vaccinated. Up to 300,000 vaccinations are administered daily.

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According to its own information, the country produced the world's first corona vaccine for animals. Carnivac-Cov received approval in Russia in March. It is effective on cats, dogs, foxes and mink and is said to be used in fur farms, among other things.

USA: At a Corona fundraising concert in Los Angeles, organizers said, more than 53 million dollars (44 million euros) were raised during the evening to fund more than ten million Corona vaccine doses for poor countries.

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U.S. President Joe Biden has issued new goals for the American Corona vaccination program, specifically addressing the 20- and 30-year-olds, many of whom believed they did not need vaccination. According to government sources, the vaccination is currently completed in about 105 million of the 328 million U.S. citizens. In addition, 147 million adults - more than 56 percent - have received at least one dose of vaccination. By the beginning of July, the U.S. government says about 70 percent of all of the roughly 260 million adults in the country have received at least the first Corona vaccine. To achieve the new goal, nearly 100 million additional vaccinations would have to be carried out over the next 60 days.

TUN: Vaccinations have been suspended for three days since Monday due to a doctors' strike. About 40,000 people were affected by the vaccination ban. Since the end of March, the number of infections in the country has been steadily increasing. In most public hospitals, the occupancy rate is now more than 90 percent due to the large number of COVID patients.

European Situation on Vaccination

Total doses distributed to EU/EEA countries	170,760,917	142,854,199

Select View : Uptake full vaccination

Country ▼

Cumulative uptake (%) of full vaccination among adults (18+) in EU/EEA countries as of 2021-05-04

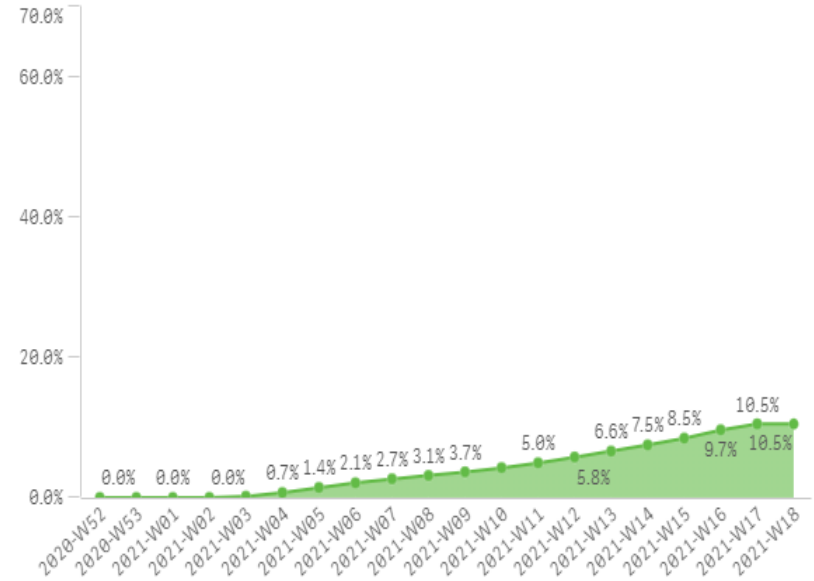
Uptake full vaccination (%)

2.5% 25.0%

Cumulative uptake at least one dose among adults (18+) in EU/EEA	Cumulative uptake full vaccination among adults (18+) in EU/EEA
28.1%	10.5%

Cumulative uptake (%) of full vaccination among adults (18+) in EU/EEA countries as of 2021-05-04

by reporting week



Cumulative uptake (%) of at least one vaccine dose by age group in EU/EEA countries as of 2021-05-04

Country	80 years and	70-79 years	60-69 years	50-59 years	25-49 years
Austria	78.2%	67.6%	48.5%	27.7%	16.3%
Belgium	86.0%	89.9%	44.8%	19.7%	12.3%
Bulgaria	9.2%	15.0%	14.5%	11.7%	6.8%
Croatia	50.1%	51.9%	30.6%	13.3%	5.9%
Cyprus	-	0.3%	9.6%	20.8%	4.1%
Czechia	73.1%	69.0%	32.8%	15.8%	9.0%
Denmark	99.0%	92.1%	32.8%	14.3%	9.9%
Estonia	56.5%	64.2%	48.6%	30.9%	14.7%
Finland	90.4%	92.1%	52.9%	23.1%	10.4%
France	69.6%	73.5%	47.0%	25.3%	7.9%
Germany	-	-	-	-	-
Greece	62.8%	63.4%	45.3%	11.0%	5.9%
Hungary	69.6%	79.6%	67.3%	52.8%	34.4%
Iceland	98.9%	99.4%	44.1%	20.1%	13.1%
Ireland	100.0%	97.6%	41.6%	21.1%	13.7%
Italy	86.2%	62.6%	32.5%	17.0%	11.5%
Latvia	23.6%	29.1%	18.4%	9.2%	5.4%
Liechtenstein	-	-	-	-	-
Lithuania	47.6%	60.4%	44.0%	24.1%	15.2%
Luxembourg	77.5%	77.5%	72.7%	20.6%	5.6%
Malta	98.9%	94.0%	72.3%	62.8%	25.6%
Netherlands	-	-	-	-	-
Norway	80.5%	91.5%	43.6%	17.0%	8.4%
Poland	56.8%	70.5%	50.7%	32.2%	12.9%
Portugal	92.2%	76.3%	30.1%	16.0%	10.6%
Romania	-	-	-	-	-
Slovakia	32.2%	-	-	-	-

Overview

COVID-19 candidate vaccine landscape and tracker

Updated on 04 May 2021

World Health Organization

R&DBlueprint
Powering research to prevent epidemics

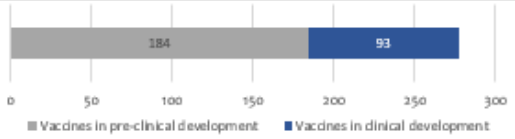
COVID-19 - Landscape of novel coronavirus candidate vaccine development worldwide

30 April 2021

DISCLAIMER: These landscape documents have been prepared by the World Health Organization (WHO) for information purposes only concerning the 2019-2020 pandemic of the novel coronavirus. Inclusion of any particular product or entity in any of these landscape documents does not constitute, and shall not be deemed or construed as, any approval or endorsement by WHO of such product or entity (or any of its businesses or activities). While WHO takes reasonable steps to verify the accuracy of the information presented in these landscape documents, WHO does not make any (and hereby disclaims all) representations and warranties regarding the accuracy, completeness, fitness for a particular purpose (including any of the aforementioned purposes), quality, safety, efficacy, merchantability and/or non-infringement of any information provided in these landscape documents and/or of any of the products referenced therein. WHO also disclaims any and all liability or responsibility whatsoever for any death, disability, injury, suffering, loss, damage or other prejudice of any kind that may arise from or in connection with the procurement, distribution or use of any product included in any of these landscape documents.

Summary Information on Vaccine Products in Clinical Development

1. - Number of vaccines in clinical development	93
2. - Number of vaccines in pre-clinical development	184

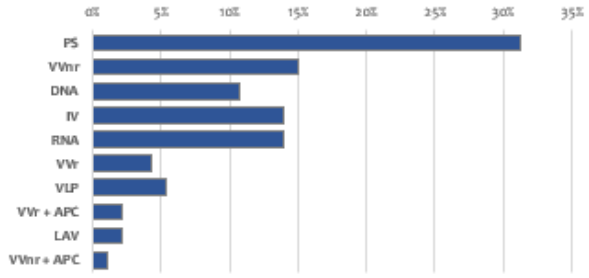


3. - Candidates in clinical phase

Filter: All

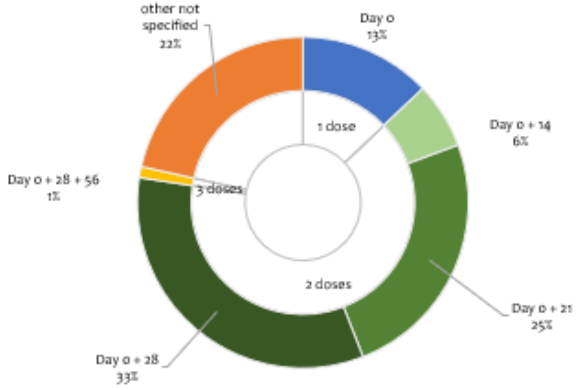
Select phase of development (default is all)

Platform		Candidate vaccines (no. and %)	
PS	Protein subunit	29	31%
VVnr	Viral Vector (non-replicating)	14	15%
DNA	DNA	10	11%
IV	Inactivated Virus	13	14%
RNA	RNA	13	14%
VVr	Viral Vector (replicating)	4	4%
VLP	Virus Like Particle	5	5%
VVr + APC	VVr + Antigen Presenting Cell	2	2%
LAV	Live Attenuated Virus	2	2%
VVnr + APC	VVnr + Antigen Presenting Cell	1	1%
		93	



4. - Number of doses, schedule and route of administration of candidates in clinical phase

Number of doses & schedule		Candidate vaccines (no. and %)	
1 dose		12	13%
Day 0		12	
2 doses		60	65%
Day 0 + 14		6	
Day 0 + 21		23	
Day 0 + 28		31	
3 doses		1	1%
Day 0 + 28 + 56		1	
TBD / No Data (MD)		20	22%
Route of administration			
Oral		2	2%
Injectable		78	84%
SC	Subcutaneous	4	4%
ID	Intradermal	3	3%
IM	Intramuscular	71	76%
IN	Intranasal	7	8%
TBD / No Data (MD)		13	14%

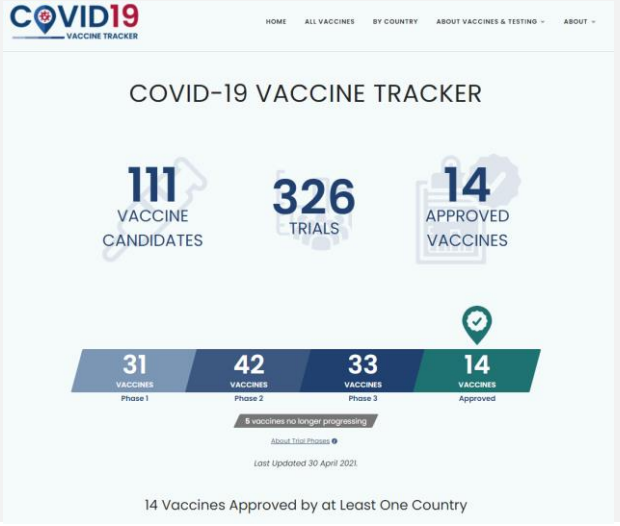


WHO provides a regular overview of vaccines that are approved or under development via its "COVID-19 candidate vaccine landscape and tracker"-topic page

As of 30 Apr 2021 (compared to data from 30th March 2021):

- 93 vaccines (82 vaccines) in clinical development
- 184 vaccines are in pre-clinical development – no change
- Only a quarter of all candidates in clinical development uses RNA or DNA platforms, the remaining 75% use "traditional" technologies, such as protein subunits, or inactivated viruses – no change
- The majority of vaccines (65%) (61%) require two doses, only 13% (15%) of all candidates in clinical development use a single dose scheme, only 1 candidate requires three doses, for 20 (19) candidates (22%) (23%) there is no information available yet.
- Two of the candidates in clinical development are designed to be administered orally, the majority (78 (69) candidates) have to be injected (71 (63) intramuscular). For 13 candidates there is no information available or the route of administration has yet to be determined.

Source: https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines



Source; https://covid19.trackvaccines.org/vaccines/

Source; https://covid19.trackvaccines.org/vaccines/

Overview
COVID-19 Vaccine Tracker

Updated on 04 May 2021

Platform	Candidate		Producer	Country	No of Counties where approved
Protein Subunit	**RBD-Dimer**	ZF2001	Anhui Zhifei Longcom	CHN	2
	EpiVacCorona		FBRI/VECTOR institute	RUS	2
Inactivated virus	**BBIBP-CorV**		Sinopharm (Beijing)	CHN	40
	Inactivated (Vero Cells)		Sinopharm (Wuhan)	CHN	2
	CoronaVac		Sinovac	CHN	24
	Kovivac		Chumakov Center	RUS	1
Non Replicating Viral Vector	**Ad5-nCoV**	Convidecia	CanSino Biologics	CHN	5
	Sputnik V	Gam-COVID-Vac	Gamaleya Research Institute	RUS	65
	Ad26.COV2.S	Ad26COVS1, JNJ-78436735	Janssen (Johnson & Johnson)	USA	41
	Vaxzevria	AZD1222	Oxford/AstraZeneca	GBR/SWE	93
	Covishield		Serum Institute of India	IND	40
RNA	**mRNA-1273**		Moderna	USA	46
	BNT162b2	Comirnaty	BioNTech/Pfizer	DEU/USA	85
Inactivated Protein Subunit	**Covaxin**	BBV152	Bharat Biotech	IND	9

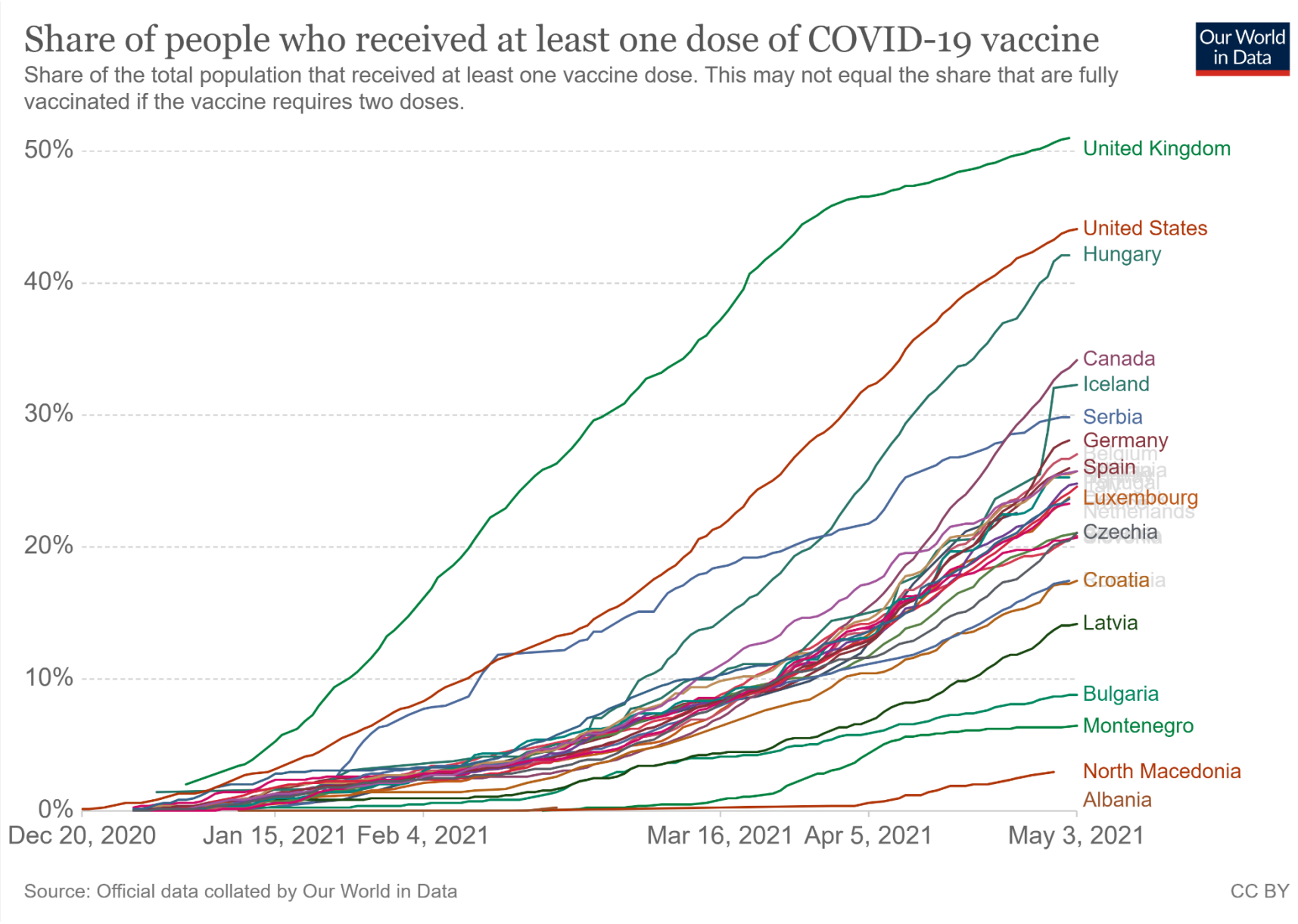
14 (13) vaccines are currently approved to be used outside of clinical trials in at least one country, according to the COVID-19 Vaccine Tracker.

Source; https://ourworldindata.org/covid-vaccinations

Trend in vaccination coverage by NATO territory

Share of Population that received at least one dose

Updated on 04 May 2021

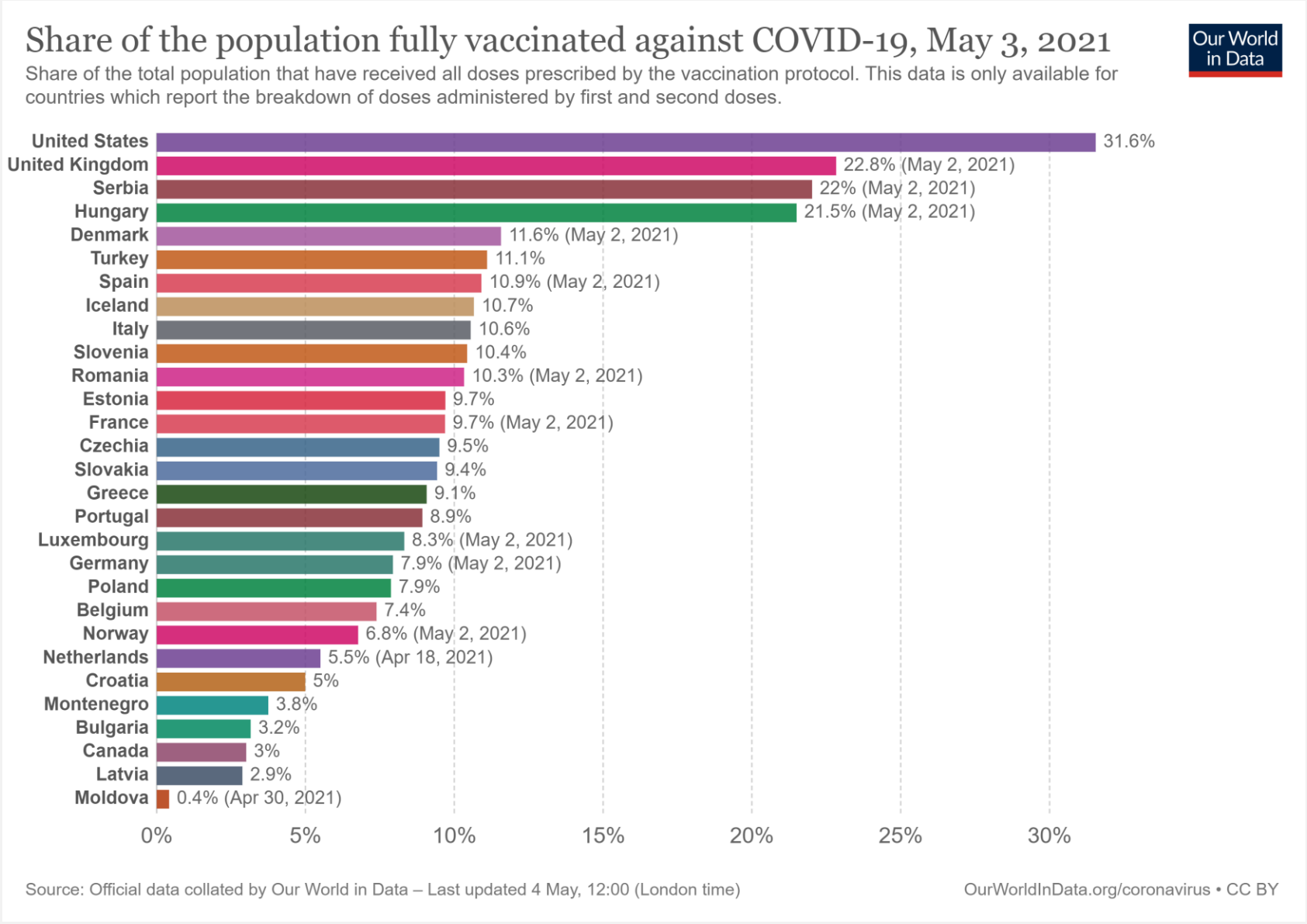


Source; https://ourworldindata.org/covid-vaccinations

Trend in vaccination coverage by NATO territory

Share of Population that is fully vaccinated

Updated on 04 May 2021



Update on SARS-CoV-2 Variants Of Concern (VOC)

WHO/ECDC is working with partners to evaluate available evidence around transmissibility, severity, antibody neutralization capabilities and potential impacts on vaccines of specific mutations, variants of interest and variants of concern. Here we provide an update on ongoing studies, as well as the geographical distribution of three variants of concern as reported by countries, territories and areas (hereafter countries) as of 16 March 2021.

As surveillance activities to detect SARS-CoV-2 variant cases are strengthened at local and national levels, including systematic genomic sequencing, the number of countries reporting VOCs has continued to increase. This information should be interpreted with due consideration of surveillance limitations, including but not limited to differences between countries in sequencing capacity and prioritization of samples for sequencing.

SARS-CoV-2 variants of concern (VOC) and variants of interest (VOI), as of 04 May 2021

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

Countries, territories and areas reporting SARS-CoV-2 VOC 202012/01

Countries, territories and areas reporting SARS-CoV-2 VOC 202012/01

Countries, territories and areas reporting SARS-CoV-2 P.1 variant

Source: https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---4-may-2021

WHO recommendation

Virus evolution is expected and the more SARS-CoV-2 circulates, the more opportunities it has to mutate. Reducing transmission through established and proven disease control methods such as those outlined in the COVID-19 Strategic Preparedness and Response Plan, as well as avoiding introductions into animal populations are crucial aspects of the global strategy to reduce the occurrence of mutations that have negative public health implications. PHSM remain critical to curb the spread of SARS-CoV-2 and its variants. Evidence from multiple countries with extensive transmission of VOCs has indicated that the implementation of PHSM and infection prevention and control (IPC) measures in health facilities has been effective in reducing COVID-19 case incidence, which has led to a reduction in hospitalizations and deaths among COVID-19 patients. National and local authorities are encouraged to continue strengthening existing PHSM, IPC and disease control activities. Authorities are also encouraged to strengthen surveillance and sequencing capacities and apply a systematic approach to provide a representative indication of the extent of transmission of SARS-CoV-2 variants based on the local context, and to detect unusual events.

Subject in Focus:
Efficacy of COVID-19 Vaccinations

There is considerable interest in the efficacy of the different types of vaccine against COVID-19. This includes whether they prevent spread or solely mitigate severe disease, whether they work after one dose or whether further doses are required (for those vaccines with two dose regimen), whether mixing vaccines confers immunity, and, whether they are effective against variants of concern (VOC).

This Subject in Focus will examine what is known about the efficacy of the different vaccinations. Over the next few weeks, we will explore the evidence around dosing and mixing of vaccines.

What is vaccine efficacy?

An understanding of the definition of vaccine efficacy is important so that the results of studies exploring efficacy can be understood and interpreted correctly. Vaccine efficacy is derived from clinical trials and can be defined as 'a proportionate reduction in disease attack rate (AR) between the unvaccinated (ARU) and vaccinated (ARV) study cohorts and can be calculated from the relative risk (RR) of disease among the vaccinated group'. This is described well in a media article which cites the Pfizer/BioNTech study where 43,661 individuals entered the trial and offered placebo/vaccine. 170 developed COVID-19 of which 8 had received vaccine. The pitfalls of vaccine efficacy are detailed in a letter published in the Lancet which corrects the perception that 95% efficacy means that 95% of the vaccinated population are protected. This is unknown until real-world data emerges.

Efficacy is different from effectiveness which describes the effect of the vaccine in a real world population.

Vaccine Efficacy

The Institute for Health Metrics and Evaluation (IHME) at the University of Washington has produced a review of vaccine efficacy (see COVID-19 vaccine efficacy summary | Institute for Health Metrics and Evaluation (healthdata.org))

IHME have developed a table setting out the evidence available on the efficacy of each vaccine across a range of metrics; prevention of infection (does the vaccine stop spread?), prevention of symptomatic disease (does the vaccine stop an individual becoming symptomatic?) and the prevention of severe disease (does the vaccine prevent severe symptoms/signs that often require hospitalisation?). Additionally, the table identifies any evidence on whether the vaccine is efficacious for the different categories against variants of concern.

There is limited published evidence of efficacy with the Pfizer/BioNTech and Oxford/AstraZeneca vaccines having most data. This resulted in the IHME developing a model and producing an estimate of efficacy across the different domains.

Table 3 (on the right – taken from the IHME website) describes their findings. The coloured cells signify modelled data and should be interpreted with caution as this is, at best, an educated guess and does not have appear to have been peer-reviewed. It demonstrates that there was very little robust evidence on the efficacy at preventing disease or infection to the B.1.351 or P.1 variants at the time this model was produced.

This is, however, a rapidly evolving field and a recent study published in Science suggested a level of complexity in vaccine response. The study reviewed data from a cohort of healthcare workers following a single dose of the Pfizer/BioNTech vaccine. They found that those with a single dose produced a lower level of neutralising antibodies against B.1.1.7 and B.1.351 variants than those who had previously been infected with COVID-19. The study also suggested that this might mean the Pfizer/BioNTech vaccine is less effective against VOC than previously thought.

Vaccine Effectiveness

Real world data from the UK published last week provided an overview of the impact of vaccination on hospitalisation and mortality. It should be noted that this was an ecological study so caution must be applied to any interpretation however it revealed that a small subset of patients was hospitalised and/or died despite having been vaccinated against COVID-19. Sub-group analysis revealed that the majority of people who were affected were elderly and frail which, the authors stated, was consistent with known data on vaccine efficacy i.e. that they will not prevent severe disease and/or death in every case. No information was available about vaccine type.

Summary

Data on vaccine efficacy and effectiveness, including against VOC, is rapidly emerging as vaccine programmes roll out across different countries and further studies are conducted however currently there is limited data available. It is important to understand vaccine efficacy and how this applies to real-world populations so that the results of these studies can be correctly applied to the population at risk. Caution is advised, however, when published, peer-reviewed data is not available and there is reliance on press-releases to understand efficacy data.

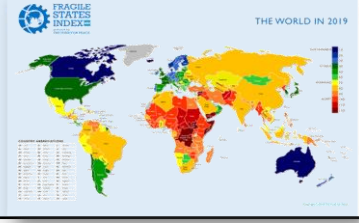
Source:
Vaccine Epidemiology: Efficacy, Effectiveness, and the Translational Research Roadmap | The Journal of Infectious Diseases | Oxford Academic (oup.com)
Are Covid-19 Vaccines Really 95% Effective? - The New York Times (nytimes.com)
What does 95% COVID-19 vaccine efficacy really mean? - The Lancet Infectious Diseases
Prior SARS-CoV-2 infection rescues B and T cell responses to variants after first vaccine dose | Science (sciencemag.org)
S1208_CO-CIN_report_on_impact_of_vaccination_Apr_21.pdf (publishing.service.gov.uk)

Table 3: Vaccine efficacy by coronavirus variant, available data and modeled estimates

Vaccine	Efficacy at preventing disease: D614G & B.1.1.7	Efficacy at preventing infection: D614G & B.1.1.7	Efficacy at preventing disease: B.1.351 & P.1	Efficacy at preventing infection: B.1.351 & P.1
Pfizer/BioNTech	91%	86%	69%	45%
Moderna	94%	85%	72%	47%
AstraZeneca	75%	52%	10%	6%
Johnson & Johnson (Janssen)	72%	72%	64%	42%
Sputnik-V	92%	80%	70%	45%
Novavax	89%	77%	49%	32%
CoronaVac	50%	43%	38%	25%
Sinopharm	73%	63%	56%	36%
Tianjin CanSino	66%	57%	50%	32%
Other mRNA vaccines	95%	83%	72%	47%
All other vaccines	75%	65%	57%	37%

https://covid19.gov.ua/en
https://kiew.diplo.de/ua-de/botschaft/-/2312744
https://ua.usembassy.gov/covid-19-information/
https://covid19.who.int/region/euro/country/ua
https://reports.unocha.org/en/country/ukraine
https://reliefweb.int/report/ukraine/unicef-2021

Conflict & Health
Ukraine Update



Ukraine

38.0 Index Score **94**/195

	COUNTRY SCORE	AVERAGE SCORE*
PREVENTION	**38.1**	**34.8**
Antimicrobial resistance (AMR)	0	42.4
Zoonotic disease	42.8	27.1
Biosecurity	32	16.0
Biosafety	50	22.8
Dual-use research and culture of responsible science	0	1.7
Immunization	88.6	85.0
DETECTION AND REPORTING	**36.5**	**41.9**
Laboratory systems	50	54.4
Real-time surveillance and reporting	40	39.1
Epidemiology workforce	50	42.3
Data integration between human/ animal/environmental health sectors	0	29.7
RAPID RESPONSE	**34.8**	**38.4**
Emergency preparedness and response planning	0	16.9
Exercising response plans	0	16.2
Emergency response operation	0	23.6
Linking public health and security authorities	0	22.6
Risk communication	75	39.4
Access to communications infrastructure	84.8	72.7
Trade and travel restrictions	100	97.4

	COUNTRY SCORE	AVERAGE SCORE*
HEALTH SYSTEM	**23.0**	**26.4**
Health capacity in clinics, hospitals and community care centers	28.2	24.4
Medical countermeasures and personnel deployment	0	21.2
Healthcare access	47.9	38.4
Communications with healthcare workers during a public health emergency	0	15.1
Infection control practices and availability of equipment	0	20.8
Capacity to test and approve new medical countermeasures	75	42.2
COMPLIANCE WITH INTERNATIONAL NORMS	**55.1**	**48.5**
IHR reporting compliance and disaster risk reduction	50	62.3
Cross-border agreements on public and animal health emergency response	50	54.4
International commitments	96.9	53.4
JEE and PVS	25	17.7
Financing	50	36.4
Commitment to sharing of genetic & biological data & specimens	66.7	68.1
RISK ENVIRONMENT	**43.3**	**55.0**
Political and security risks	14.3	60.4
Socio-economic resilience	63.8	66.1
Infrastructure adequacy	41.7	49.0
Environmental risks	47.6	52.9
Public health vulnerabilities	53.5	46.9

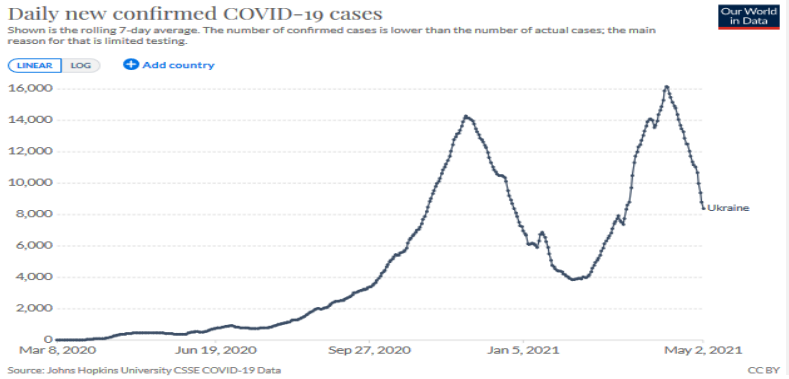
Average: all 195 countries
Scores are normalized (0-100, where 100 = most favorable)

www.ghsindex.org

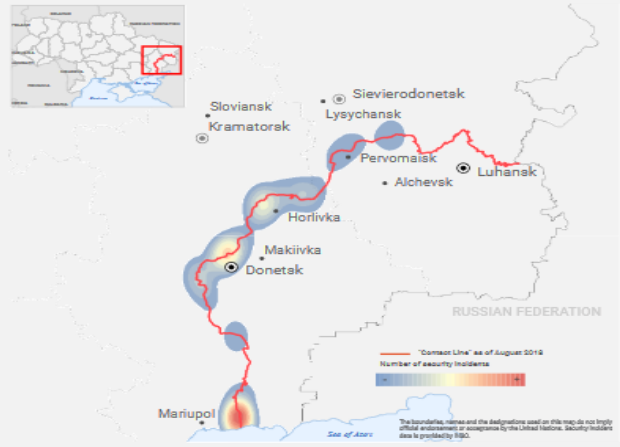
COVID-19: The first COVID-19 cases has been reported relatively late, namely 03.03.2020. Since then, the government has been quick to take extensive action to contain the pandemic. The Ukraine Ministry of Health reporst on the COVID-19 situation on irregular basis. As of May 3 2021 officially 2 085 938 laboratory confirmed cases have been reported, with 44 750 death and 2 758 new cases a day. Most COVID-19 cases in Ukraine were recorded in the capital Kyiv, measured at over 194 thousand as of April 29, 2021. Data from the occupied territories of the **Donetsk** and **Luhansk Oblasts**, the Autonomous Republic of **Crimea,** and the city of **Sevastopol** is excluded from the official daily updates. The unrecognized Donetsk People's Republic and the unrecognized Luhansk People's Republic report numbers independently, while Russia includes the annexed Republic of Crimea in its numbers. An antibody study done by Synevo laboratories showed that in January 2021 already 44% to 60% of all Ukrainians depending on region were infected compared to 33% in October 2020 and 9% in July 2020. The reported numbers of daily new cases and daily deaths had been decreasing since December 2020, but during this month, that trend reversed. Ukraine launched its vaccination campaign on February 24 after a slight delay. 500,000 doses of the AstraZeneca vaccine were received from the Serum Institute of India.

REGULATIONS DUE TO COVID-19: Measures to contain the Corona pandemic in Ukraine are currently in place until 30.06.2021 and are being tightened in several regions due to the situation. Mass events are prohibited. Nationwide, a mask obligation continues to apply in enclosed spaces with public traffic. In so-called "red zones" masks must also be used in public places (e.g. parks or playgrounds) if a distance of 1.5 m from other persons cannot be observed. Several regions of Ukraine are classified as 'red zones', which has led to a tightening of pandemic rules. Luhanska and Donetska oblast (NGCA) adopted quarantine measures similar to those in Government-controlled areas of eastern Ukraine at the end of March 2020.

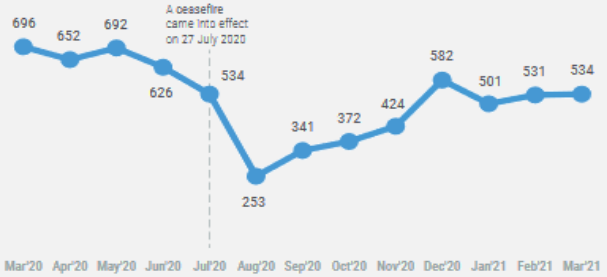
There is no ban on entry to Ukraine for foreign citizens and stateless persons. Regular international passenger service has been renewed. Citizens of other countries need to have a negative PCR test done 72 hours prior to entering and an insurance policy that covers the cost of treatment COVID-19. **NATO personnel training Ukrainian military are exempt from both requirements.**



NUMBER AND LOCATION OF SECURITY INCIDENTS
(MARCH 2021)



NUMBER OF SECURITY INCIDENTS BY MONTH
(MARCH 2020 – MARCH 2021)**



* Source: FTS as of 1 April 2021. Some donations are yet to be recorded, and donors and partners are invited to register donations.
** Source: INSO.

CONFLICTS (Eastern UKR): While last year saw the lowest level of civilian casualties and attacks on civilian infrastructure for the entire conflict period, the recent return to active fighting might signify that the positive trend observed following the July 2020 ceasefire might reverse course soon. The growing number of ceasefire violations in the first three months of 2021 raises concerns over the possible return to the pre-ceasefire level of hostilities or, in the worst case, potential escalation. Any deterioration of security conditions in the east will severely aggravate the humanitarian situation for 3.4 million in need of assistance, whose resilience is already strained by seven years of armed conflict and the COVID-19 pandemic.

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 will publish a map of EU Member States, broken down by regions, which will show the risk levels across the regions in Europe using a traffic light system find 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:

- Objectives of vaccination strategies against COVID-19, Technical report 23 Apr 2021
- Interim guidance on the benefits of full vaccination against COVID-19 for transmission and implications for non-pharmaceutical interventions, Technical report 21 Apr 2021
- Considerations on the use of self-tests for COVID-19 in the EU/EEA, Technical report 17 Mar 2021
- Options for the use of rapid antigen tests for COVID-19 in the EU/EEA and the UK, Technical report 19 Nov 2020
- COVID-19 testing strategies and objectives, Technical report 18 Sep 2020
- SARS-CoV-2 variants of concern pose a higher risk for hospitalisation and intensive care admission, study coordinated by ECDC "Characteristics of SARS-CoV-2 variants of concern B.1.1.7, B.1.351 or P.1: data from seven EU/EEA countries, weeks 38/2020 to 10/2021", 28 Apr 2021
- Vaccine tracker
- Risk assessment ECDC , 15 Feb 2021

WHO:

- Epi-WIN webinars and updates
- Status of CoViD-19 Vacines within WHO EUL/PQ evaluation process
- Weekly Epidemiological and operational updates
- COVID-19 new variants: Knowledge gaps and research
- COVID-19 Dashboard

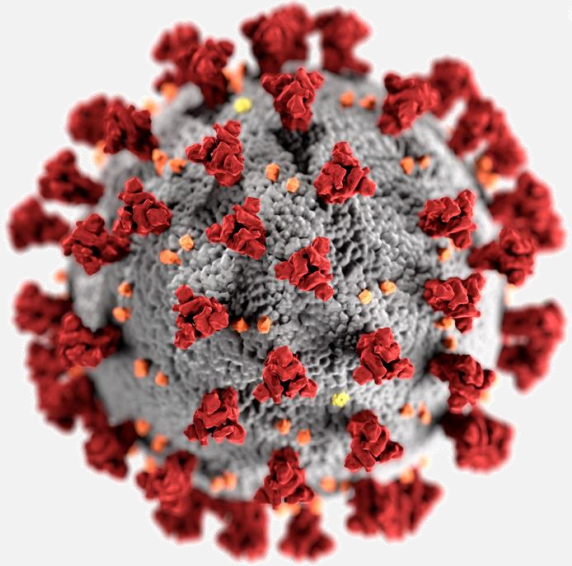
CDC:

- COVID Data Tracker and weekly review
- Interim Guidance on Ending Isolation and Precautions for Adults with COVID-19

Upcoming Events FHPB

We are happy to announce the;

Force Health Protection Event:
COVID-19; A retrospective look at a turbulent time



When:	3rd to 4th November 2021
Location:	virtual event via Microsoft Office Teams platform
Registration:	open 3rd May 2021
Call for papers:	3rd May to 25th June 2021
Link:	Registration/Submission page