**Update 61 (16th of March 2021)**

**Information about infection disease**
**COVID-19 (novel coronavirus)**

**Force Health Protection Branch FHPB (former DHSC) NATO MILMED COE in Munich**
**16th of March 2021**
email: info.dhsc@coemed.org

In December 2019, a novel coronavirus emerged in Wuhan City, China. Since then the virus spread to 65 countries including Europe and America. Since then the virus showed evidence for human-to-human transmission as well as evidence of asymptomatic transmission. At 30th January 2020 WHO declared a Public Health Emergency of International Concern. The disease was formally named COVID-19 on 11th of February. The virus itself has been named SARS-CoV-2. On 11th of March 2020 WHO characterized the disease as a pandemic.

## HIGHLIGHTS/NEWS

- **FRA**: According to a communication from the French Ministry of Health, another mutation of the coronavirus appears to have been detected in Brittany. According to initial information, however, it should not be more contagious than already discovered mutants.
- **AstraZeneca**: Vaccine manufacturer considers the vaccine it produces to be safe for health. An investigation was carried out during which no evidence could be found that the risk of thrombosis was increased in vaccination patients, it said in a statement. The "accurate" study collected the health data of more than 17 million patients in the EU and the UK. It said there was "no evidence of an increased risk of pulmonary embolism, deep vein thrombosis or thrombocytopenia" "in no age group, gender, or country."
- After Denmark, Norway, Iceland and Bulgaria, Spain, Portugal, Slovenia, Germany, Ireland, Sweden and the Netherlands are now also pausing for the time being with the administration of the AstraZeneca vaccine. The background is the concern about serious side effects.
- The **WHO** has called for continued vaccination against the coronavirus using The AstraZeneca active substance. A WHO spokeswoman stressed that there was no reason not to use the vaccine. A WHO expert group on vaccine safety will analyze the data and will consult with representatives of the EMA on Tuesday. The incidents were not necessarily due to vaccination. Of the 300 million doses of vaccine administered by various manufacturers worldwide to date, there has been no documented case of a causal link with fatal incidents. The advantage of vaccination far outweighs the risk as it is at present.
- For the time being, the **EMA** is sticking to its assessment of AstraZeneca's Corona vaccine. So far, there is no evidence that the remedy poses a serious health risk. France and Italy expressed the hope that vaccinations with the vaccine could be resumed following the RE-opinion of the EMA.
- **WTO**: The new Director-General calls on the manufacturers of Corona vaccines to clear the way for other companies to license their vaccines. This is urgently needed in order to provide vaccines to poor countries as well. There are more than 130 countries worldwide "without a single dose" vaccine. 'It's not acceptable because it's why people are dying.'
- **EU**: In a statement, the European Commission denied allegations that the vaccine was being unfairly distributed in the EU. All Member States received the same per capita quantities in relation to their population. This mechanism is fair, since the virus affects all Member States equally. However, some states have decided to depart from this mechanism. If one Member State does not request its weekly batches, others could take over this quota.
- **ECDC:** Published a new guidance for COVID-19 quarantine and testing of travellers as well as a document aims to support the implementation of in-action reviews (IARs) focused on the public health response to COVID-19.

| |
|---|
| **GLOBALLY ↗**<br>120 226 250<br>confirmed cases<br>68 213 450 recovered<br>2 660 914 deaths |
| **EU/EEA and the UK ↗**<br>39 399 541<br>confirmed cases<br>21 483 750 recovered<br>890 008 deaths |
| **USA ↗**<br>**(new cases/day 55 110)**<br>29 380 480<br>confirmed cases<br>11 977 707 recovered<br>533 364 deaths |
| **Brazil ↗**<br>**(new cases/day 36 239)**<br>**11 519 609**<br>confirmed cases<br>**10 195 598** recovered<br>**279 286** deaths |
| **India ↗**<br>**(new cases/day 26 291)**<br>**11 385 339**<br>confirmed cases<br>**11 027 543** recovered<br>**158 856** deaths |
| **Russia ↘**<br>**(new cases/day 9 347)**<br>**4 350 728**<br>confirmed cases<br>**3 958 300** recovered<br>**90 958** deaths |
| **UK →**<br>**(new cases/day 5 089)**<br>**4 263 531** confirmed cases<br>**-**not reported**-** recovered<br>**125 580** deaths |

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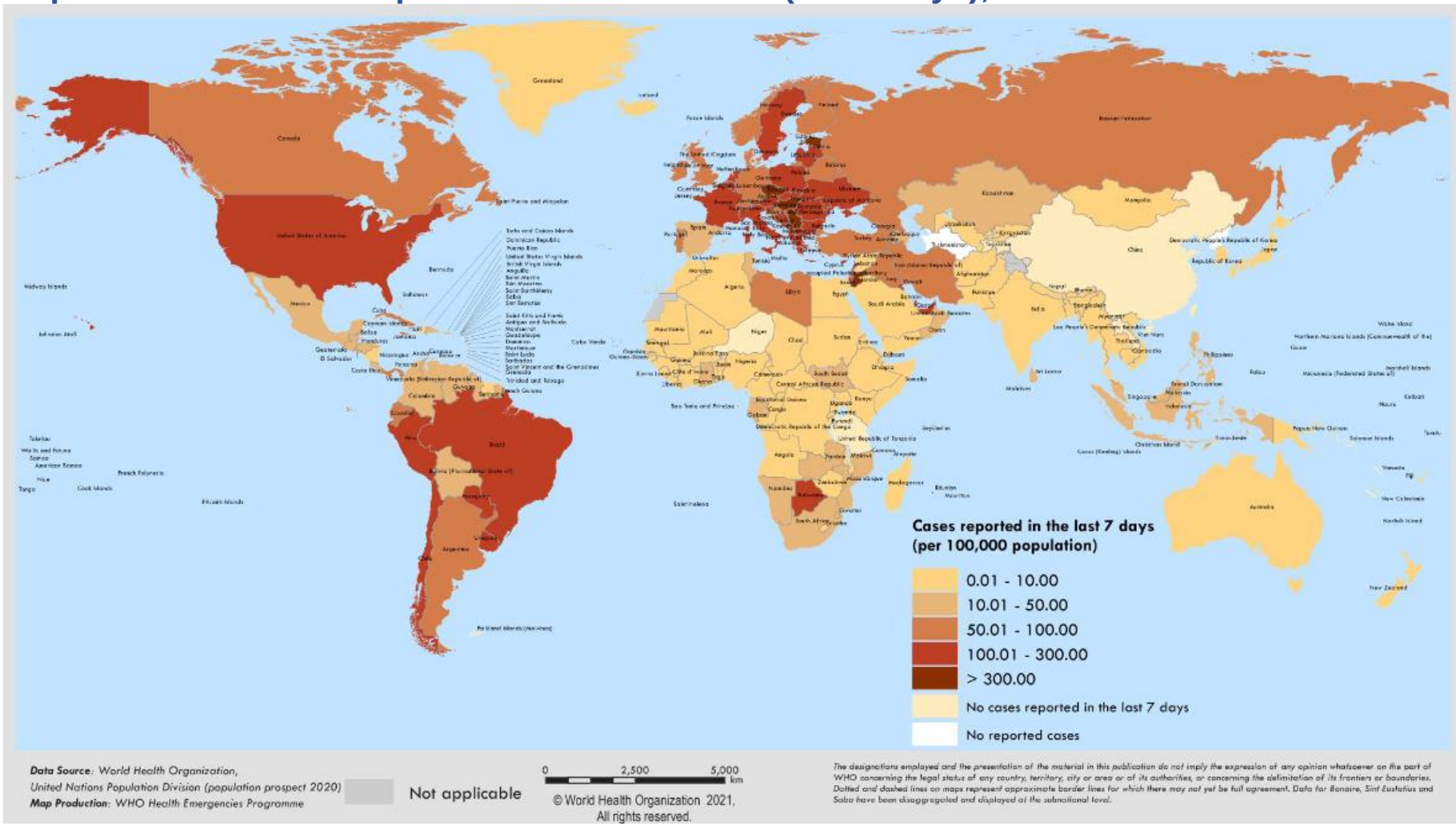
## Map of countries with reported COVID-19 cases (last 7 days), as of 01 to 07 March 2021

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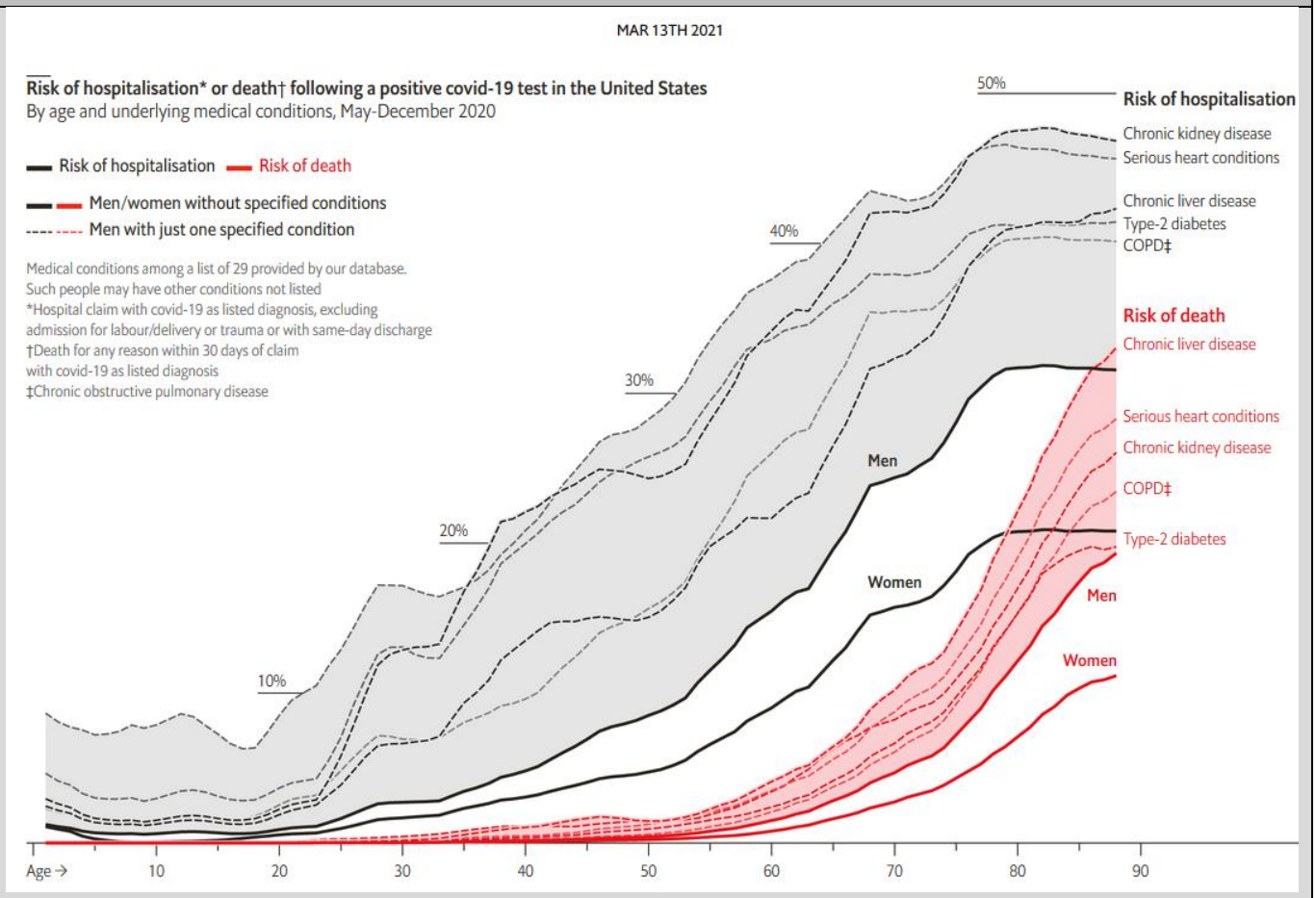
# Worldwide Situation

Global Situation

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**Effectiveness of three versus six feet of physical distancing for controlling spread of COVID-19 among primary and secondary students and staff**

Us authorities are considering changing the Corona distance rule from two to one meter. The CDC is reviewing a Massachusetts study that found there was "no substantial difference" in corona numbers when schools were required to have a distance of one or two meters - while requiring masks. Officials around the world are under pressure to reopen schools as soon as possible, while ensuring protection against contagion. Maintaining the minimum distance of 1.5 to two meters makes this difficult, classes must be divided and additional classrooms created in many places.
The study, was led by Harvard University's Beth Deaconess Medical Center and examined 251 schools in the state of Massachusetts. According to the report, "no substantial differences in the COVID-19 case numbers among students and staff were found" when a distance of one metre or two metres was observed, but all masks were worn. The findings were published in the journal Clinical Infectious Diseases. Other studies have already shown that infection rates in schools tend to be low. A one-metre distance rule would have a huge impact on the possible reopening of schools, offices and public facilities such as sports facilities.

**Source:** https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciab230/6167856

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**Comparison of clinical characteristics and disease outcome of COVID-19 and seasonal influenza**

While several studies have described the clinical course of patients with coronavirus disease 2019 (COVID-19), direct comparisons with patients with seasonal influenza are scarce. The named study compared 166 patients with COVID-19 diagnosed between February 27 and June 14, 2020, and 255 patients with seasonal influenza diagnosed during the 2017–18 season at the same hospital to describe common features and differences in clinical characteristics and course of disease.

## Results

Patients with COVID-19 were younger and had fewer comorbidities at baseline with a lower mean overall age-adjusted Charlson Comorbidity Index than patients with seasonal influenza. COVID-19 patients had a longer duration of hospitalization, a more frequent need for oxygen therapy and invasive ventilation and were more frequently admitted to the intensive care unit than seasonal influenza patients. Among immunocompromised patients, those in the COVID-19 group had a higher hospital mortality compared to those in the seasonal influenza group.

| | COVID-19 (n = 166) | Influenza (n = 255) | P value |
|---|---|---|---|
| Female, no. (%) | 55 (33.1) | 111 (43.5) | 0.03 |
| Age, median (IQR) | 59 (45; 71) | 66 (52; 77) | < 0.001 |
| **Comorbidities** | | | |
| ACCI, mean (SD) | 3.0 (2.6) | 4.0 (2.7) | < 0.001 |
| Hypertension, no. (%) | 66 (39.8) | 131 (51.4) | 0.02 |
| Cardiovascular disease, no. (%) | 27 (16.3) | 73 (28.6) | 0.003 |
| Cerebrovascular disease, no. (%) | 12 (7.2) | 32 (12.5) | 0.10 |
| Chronic respiratory disease, no. (%) | 25 (15.1) | 69 (27.1) | 0.004 |
| Chronic liver disease, no. (%) | 4 (2.4) | 18 (7.1) | 0.04 |
| Chronic renal disease, no. (%) | 13 (7.8) | 48 (18.2) | 0.002 |
| Diabetes mellitus, no. (%) | 32 (19.3) | 52 (20.4) | 0.80 |
| SOT recipients, no. (%) | 4 (2.4) | 23 (9.0) | 0.007 |
| **Immunocompromised host** | | | |
| Total, no. (%) | 39 (23.5) | 69 (27.1) | 0.43 |
| Corticosteroids, no. (%) | 13 (7.8) | 40 (58.0) | 0.02 |
| CNI/mTORI, no. (%) | 6 (3.6) | 29 (42.0) | 0.006 |
| MTX, no. (%) | 2 (1.2) | 1 (1.4) | 0.57 |
| CD20 antibodies, no. (%) | 9 (5.4) | 2 (2.9) | 0.008 |
| Chemotherapy, no. (%) | 20 (12.0) | 11 (15.9) | 0.004 |
| Acute leukemia, no (%) | 13 (7.8) | 6 (8.7) | 0.01 |
| Lymphoma, no. (%) | 8 (4.8) | 10 (14.5) | 0.81 |
| Allogeneic HCT, no. (%) | 5 (3.0) | 7 (10.1) | 1.00 |

**Table 1.** Demographic information, comorbidities, immunosuppression, and immunodeficiency of patients with COVID-19 and seasonal influenza. *COVID-19* coronavirus disease 2019, *IQR* interquartile range, *ACCI* age-adjusted Charlson Comorbidity Index, *SD* standard deviation, *SOT* solid organ transplant, *CNI* calcineurin inhibitor, *mTORI* mTor-inhibitor, *MTX* methotrexate.

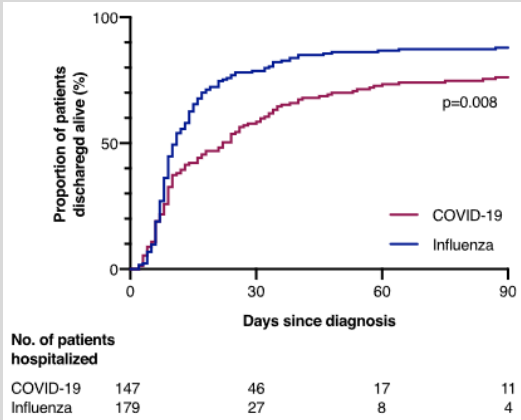


**Figure 2.** Proportion of hospitalized patients discharged alive during the first 90 days after diagnosis compared by log-rank test.

## Conclusion

In conclusion, the study demonstrate that patients treated with SARS-CoV-2 infection during the early phase of the pandemic were younger and healthier than those with seasonal influenza infections. However, patients with SARS-CoV-2 infection had a generally more severe course of disease. These results suggest that this phase of the COVID-19 epidemic was associated with a higher demand for both critical care and regular care hospital beds than seasonal influenza epidemics with similar patient numbers. Importantly, the high mortality in COVID-19 patients with hematological malignancies and older patients emphasizes the importance of protecting these patient groups from SARS-CoV-2 infection. While patients hospitalized with SARS-CoV-2 infection in the future will likely differ from those in our cohort in clinical characteristics and disease outcome due to changes in disease epidemiology and novel therapeutic agents and strategies, our observations provide important insights for the future course of the COVID-19 pandemic.

**Source:** https://www.nature.com/articles/s41598-021-85081-0.pdf

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**Increased mortality in community-tested cases of SARS-CoV-2 lineage B.1.1.7**

An analysis by British researchers has provided further evidence that the coronavirus variant B.1.1.7, first discovered in the UK, is more deadly than the original virus. According to the study, published in the journal Nature, scientists at the London School of Hygiene and Tropical Medicine expect a 55 percent higher risk of death from B.1.1.7 infections compared to the original virus. Known risk factors such as age, gender and ethnicity were taken into account. The absolute risk of death from coronavirus infection increases for a man in the 55-69 age group from 0.6 to 0.9 percent within four weeks of a positive test. The study included data from around 2.2 million positive cases in the UK from 1 September 2020 to 14 February 2021.

An analysis published last week in the British Medical Journal had produced similar results. Researchers from the University of Exeter found a 64 percent higher risk of death from B.1.1.7 infection compared to other corona variants.

**Source:** **https://www.nature.com/articles/s41586-021-03426-1**
**https://www.bmj.com/content/372/bmj.n579**

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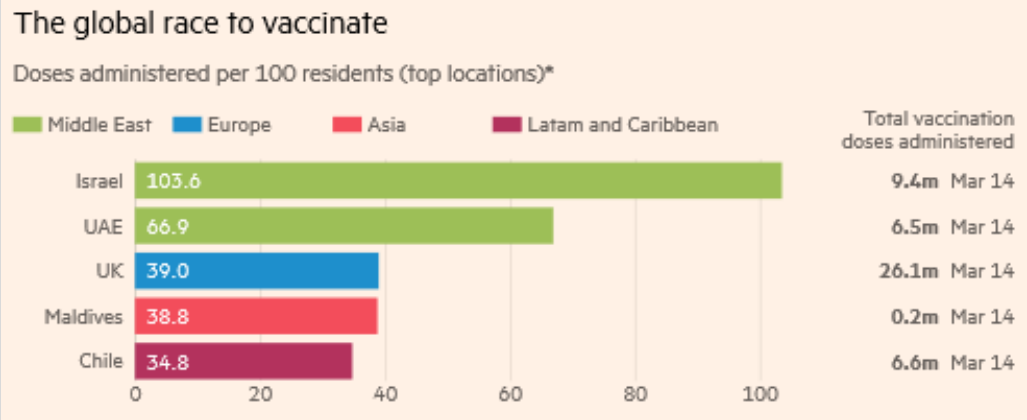


***Vaccination report***

**Country reports on vaccination**

**EU:** Despite further supply bottlenecks by the manufacturer AstraZeneca, the EU Commission is sticking to its vaccination commitments. Although there are delays at AstraZeneca, the vaccination programme will not be delayed in the first quarter, as BioNTech partner Pfizer has increased its production capacity and will deliver more vaccines to the EU than planned.

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In order to prevent the lack of corona vaccines as far as possible, the manufacturers **BioNTech** and **Pfizer** want to deliver ten million doses of vaccine to the EU earlier than planned. In total, 200 million doses of BioNTech vaccines would be made available to EU countries from April to June.

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**AUT:** The national decisions on the precautionary vaccination ban with AstraZeneca are rated as critical according the Austrian government. What is needed is a clear and clear statement from the European authorities as soon as possible for a common pan-European approach. In the case of vaccinations, a common European approach was agreed. National individual is neither effective nor confidence-building in this context. Such far-reaching decisions should be clearly substantiated by sound data and facts. At present, there is no evidence of a causal link between the AstraZeneca vaccine and the currently discussed health events, which may also occur in unvaccinated individuals.

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**ITA**: After the death of a vaccinated teacher, the Italian region of Piedmont suspended corona immunization with AstraZeneca. They are acting out of "extreme caution" until they find out whether the vaccination is related to death. On Friday, the Italian medicines agency Aifa stopped the administration of a batch of AstraZeneca after a soldier died in Sicily. A link between vaccination and death has not yet been established. In general, the Italian government is sticking to vaccination with AstraZeneca.

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**NLD**: According to the Medicines Regulatory Agency, there are currently ten reports of significant side effects after vaccinations with the AstraZeneca vaccine. These included possible cases of thrombosis or embolism. However, in none of the ten cases was a reduced number of platelets observed, as

reported from Denmark and Norway. The Netherlands, like some other countries, has suspended vaccinations with the AstraZeneca vaccine for the time being.

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**GBR:** In the fight against the coronavirus, a leading British researcher said there is a need of regular vaccination refreshes. The background is mutants, who could not only be more contagious but also more dangerous. The coronavirus mutates approximately every two weeks. This is slower than, say, the flu or HI virus, but it is sufficient to adapt the vaccines. However, given the speed with which innovative vaccines are currently being developed, she is confident that the vaccines can be adapted quickly.

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Unlike several other European countries, the UK continues to use AstraZeneca's Corona vaccine. The UK is closely looking at the reports but given the large number of doses administered and the frequency with which blood clots can occur naturally, the available evidence does not suggest that the vaccine is the cause. No cases of serious side effects have been reported in the UK so far.

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**RUS**: According to its own information, agreements have been reached with European countries for the production of the Sputnik V Corona vaccine. These are companies in Germany, France, Italy and Spain. The aim is to ensure the start of deliveries of the Russian vaccine to European countries when authorisation is available in Europe. The EMA is still examine the application for approval. According to Russian data, the preparation is already approved in almost 50 countries, including without EMA approval already in Hungary.

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**USA**: US immunologist Anthony Fauci has indirectly called on former President Donald Trump to appeal to his supporters. The background is a recent poll showing that about half of Trump supporters oppose vaccination against the coronavirus. Fauci called this figure disturbing and said that it makes no sense for such a large population group to refuse immunization for purely political reasons.

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**JAM**: Jamaica is the first country in the Caribbean to receive coronavirus vaccines from the international Covax initiative. 14,400 doses from AstraZeneca arrived in the capital Kingston on Monday. As a result, 124,800 doses of vaccine are to be delivered by May.

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**CHN**: So far nearly 65 million doses of Corona vaccine have been given to the citizens. According to official information, the work of the teams with the target groups is on schedule. China has promised about 10 times more vaccine doses to foreign countries than it has administered domestically. One reason is that the state has almost eliminated the spread of the virus domestically. Four vaccines have so far been approved in China. The People's Republic plans to vaccinate 900 million to one billion of its 1.4 billion inhabitants by the summer of next year.

military

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**Country Reports:**

**ISR**: Just over three months after the start of the vaccination campaign, the last Corona station in the large Ichilov hospital in Tel Aviv was closed. The number of seriously ill people and also the number of newly infected people has fallen sharply recently.

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**PAK:** New restrictions have been imposed due to concerns about rapidly increasing corona infections. These affect at least seven major cities in Punjab province and the capital Islamabad. The restrictions include restrictions on freedom of movement in these densely populated cities, a ban on indoor gatherings, and the earlier closure of markets and shops. Schools will also remain closed for at least two weeks. Wearing masks in public and keeping away are again mandatory.

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**IRN**: Over the past 12 months, more than a million people in Iran have lost their jobs as a result of the Corona pandemic. The economic consequences of the Corona pandemic were extremely severe and led to unemployment of more than one million in the country. In addition to those directly affected, there were severe restrictions in almost all sectors - including tourism, gastronomy, the hotel industry and beauty salons.

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**CHN**: wants to donate 300,000 doses of Corona vaccine to UN peacekeepers. According to the ambassador, priority is to be vaccinated by Blue Helmet surge missions on the African continent. China is concerned about the security of peacekeepers. The donation is another step towards making China's vaccines a public good, as well as a demonstration of support from the United Nations and multilateralism.

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**IND**: India is facing a new corona wave. After nearly 11.4 million confirmed infections, the South Asian country reported its highest level of new infections in a single day in about three months and for the sixth day in a row. The state of Maharashtra, which recorded more than half of the new infections, is particularly affected by the new development. Hospitals in the city of Pune and other districts have been ordered to vaccinate more quickly.

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**KOR**: South Korea's most populous province launches coronavirus tests for all foreigners. Long queues with hundreds of people formed in front of the test centres. According to the authorities, 85,000 people are affected.

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**USA**: The number of new corona infections recorded in one day continues to decline. Authorities reported 37,669 new cases on Sunday, according to data from Johns Hopkins University (JHU) in Baltimore. On the same day the previous week, 40,966 new infections had been reported. So far, more than 69.7 million people in the U.S. have received the first vaccination against the virus, and about 37.4 million have already received both doses.

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As the number of travelers in the U.S. increases, the CDC has urged compliance with the coronavirus pandemic protections. Authorities had registered more than 1.35 million travelers at U.S. airports on Friday - the highest level since the pandemic slumped nearly a year ago.

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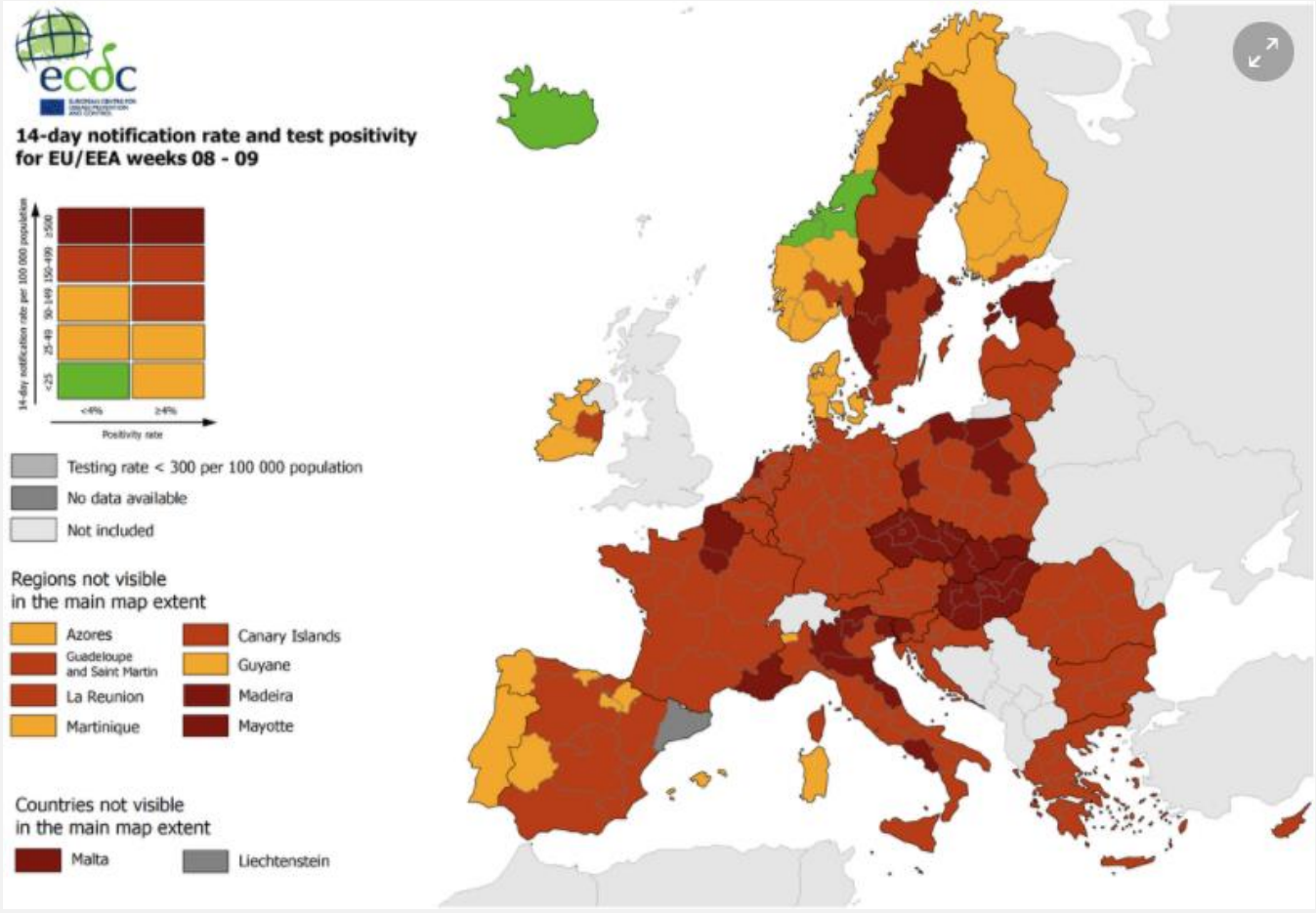
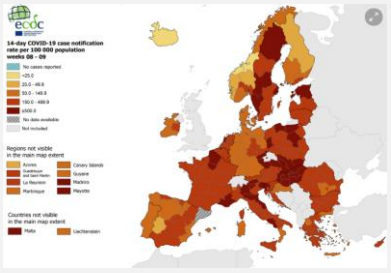
Exactly one year after the first person died in New York after a confirmed corona infection, the metropolis of millions of people has since thought of the more than 30,000 deaths. Musicians from the New York Philharmonic performed at a live commemorative event. Images of some of the dead were projected onto the pillars of the Brooklyn Bridge. The metropolis had become the center of the pandemic in the UNITED States in the spring of 2020, but now the infection has stabilized relatively.

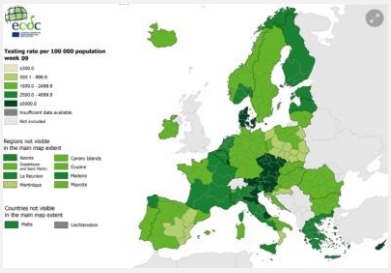
Situation in Europe

[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 11 March 2021

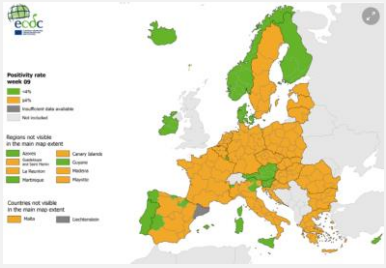


14-day case notification rate per 100 000 inhabitants



Testing rates per 100 000 inhabitants



Positivity rates

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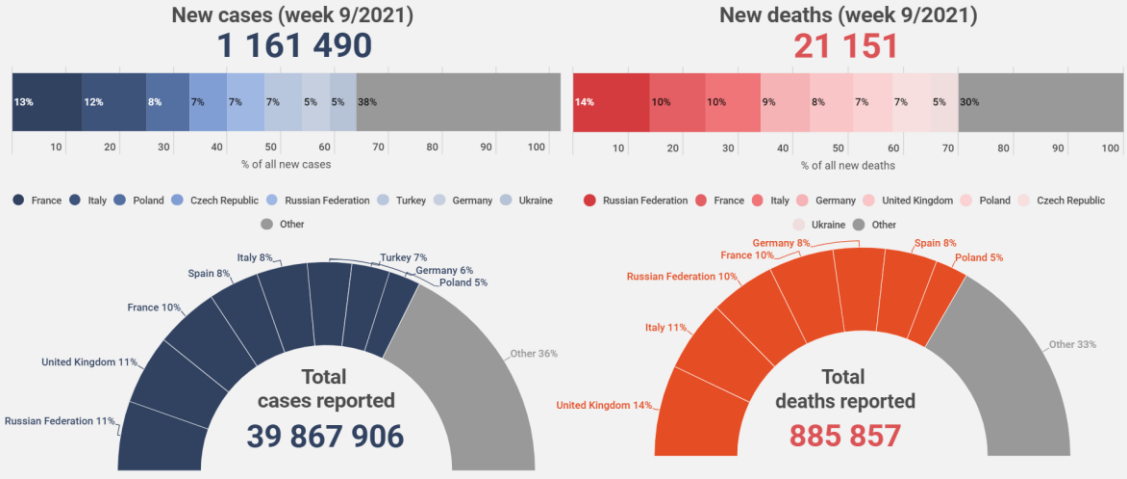
[COVID-19 situation update for the WHO European Region (1 March – 7 March 2021 Epi week 09)]()

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## ECDC COVID-19 surveillance report Week 09, as of 11 March 2021

### Weekly surveillance summary

**Overall situation**

By the end of week 9 (week ending Sunday 7 March 2021), 19 countries in the EU/EEA had reported increasing case notification rates and/or test positivity. Case rates in older age groups had increased in 10 countries, 14 countries reported increasing hospital or ICU admissions and/or occupancy due to COVID-19 and nine countries reported increasing death rates. The absolute values of the indicators remain high, suggesting that transmission is still widespread. It is possible that further increases in admissions to hospital, ICU and mortality will follow in the coming weeks in those countries that are currently observing increasing case notification rates.

**New**

Figures showing weekly sequencing volumes and trends in estimated variant proportions by country, based on data reported to TESSy and the GISAID EpiCoV database (section 3.6).

**Trends in reported cases and testing**

- By the end of week 9, the 14-day case notification rate for the EU/EEA, based on data collected by ECDC from official national sources in 30 countries, was 329 (country range: 4-1 572) per 100 000 population. The rate has been increasing for two weeks.
- Among the 28 countries with high case notification rates (at least 60 per 100 000), increases were observed in 18 countries (Austria, Bulgaria, Croatia, Cyprus, Czechia, Estonia, Finland, France, Greece, Hungary, Italy, Liechtenstein, Malta, the Netherlands, Norway, Poland, Romania and Sweden). Stable or decreasing trends in case rates of 1–7 weeks' duration were observed in 10 countries (Belgium, Denmark, Germany, Ireland, Latvia, Lithuania, Luxembourg, Portugal, Slovakia and Slovenia).
- Based on data reported to The European Surveillance System (TESSy) from 24 countries for people over 65 years of age, high levels (at least 60 per 100 000) or increases in the 14-day COVID-19 case notification rates compared with last week were observed in 22 countries (Austria, Belgium, Cyprus, Czechia, Estonia, Finland, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Spain and Sweden).
- Notification rates are highly dependent on several factors, one of which is the testing rate. Weekly testing rates for week 9, available for 29 countries, varied from 999 to 32 679 tests per 100 000 population. Cyprus had the highest testing rate for week 9, followed by Austria, Denmark, Luxembourg and Slovenia.
- Among 22 countries in which weekly test positivity was high (at least 3%), five countries (Bulgaria, Croatia, Poland, Romania and Spain) had observed an increase in test positivity compared with the previous week. Test positivity remained stable or had decreased in 17 countries (Belgium, Czechia, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Malta, the Netherlands, Portugal, Slovakia and Sweden).

**Hospitalisation and ICU**

- Pooled data from 22 countries for week 9 show that there were 10.4 patients per 100 000 population in hospital due to COVID-19. According to pooled weekly hospital admissions based on data from 20 countries, new admissions were 10.7 per 100 000.
- Pooled data from 16 countries for week 9 show that there were 2.1 patients per 100 000 population in ICU due to COVID-19. Pooled weekly ICU admissions based on data from 14 countries were three new admissions per 100 000.
- 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, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, 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 66.9 (country range: 0.0-246.2) per million population. The rate has been stable for one week.
- Among 24 countries with high 14-day COVID-19 death rates (at least 10 per million), increases were observed in eight countries (Bulgaria, Czechia, Estonia, Greece, Hungary, Luxembourg, Malta and Romania). Stable or decreasing trends in death rates of 1–10 weeks' duration were observed in 16 countries (Austria, Belgium, Croatia, France, Germany, Ireland, Italy, Latvia, Lithuania, the Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain and Sweden).

**Variants of concern**

- Sequencing capacity varies greatly across the EU/EEA; the rate of SARS-CoV-2-positive cases sequenced and reported to the GISAID EpiCoV database and TESSy by 9 March 2021 for the period from 15 February 2021 to 28 February 2021 was lower than the recommended level of 10% or 500 sequences in all but nine EU/EEA countries (Belgium, Denmark, Finland, Germany, Iceland, Ireland, Italy, Luxembourg and Norway). During the same period, nine countries sequenced and reported between 60 and 499 samples, while 12 countries sequenced and reported <60 samples or did not report data.

**Notes**

- ECDC produces two weekly COVID-19 surveillance outputs (COVID-19 country overview and COVID-19 surveillance report) using data from a range of sources. The data behind most of the figures in the COVID-19 country overview are available to download in open data formats on ECDC's website.
- Additional weekly surveillance bulletins relevant to the COVID-19 pandemic in Europe include EuroMOMO (estimates of all-cause mortality) and Flu News Europe (including primary care sentinel and hospital-based surveillance for respiratory disease), which are published every Thursday and Friday, respectively.

## COVID-19 Vaccine roll-out overview EU, as of 11 March 2021

### Vaccine rollout summary

**Key figures as of week 9, 2021 (7 March 2021)**

**Total number of vaccine doses distributed by manufacturers to EU/EEA countries: 54 207 310** (29 countries reporting)

*Reporting countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden*

**Number of vaccine doses distributed by manufacturers to EU/EEA countries per hundred inhabitants: median of 15 per hundred inhabitants (range: 6.4–25 per hundred inhabitants)** (29 countries reporting)

*Reporting countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden*

**Total number of vaccine doses administered in EU/EEA countries: 42 640 715** (30 countries reporting)

*Reporting countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden*

**Uptake of first vaccine dose among adults aged 18 years and above in EU/EEA countries: median of 8.2% (range: 4.1–14.9%)** (30 countries reporting)

*Reporting countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden*

**Full vaccination uptake among adults aged 18 years and above in EU/EEA countries: median of 3.7% (range: 0.9–6.5%)** (30 countries reporting)

*Reporting countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden*

**Uptake of first vaccine dose among persons aged 80 years and above: median of 43.7% (range: 3.3–90.7%)** (23 countries reporting)

*Reporting countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Greece, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Malta, Norway, Poland, Portugal, Slovenia, Sweden*

**Full vaccination uptake among persons aged 80 years and above in EU/EEA countries: median of 18.7% (range: <0.1%–55.6%)** (23 countries reporting)

*Reporting countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Greece, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Malta, Norway, Poland, Portugal, Slovenia, Sweden*

**Uptake of first vaccine dose among healthcare workers in EU/EEA countries: median of 59.9% (range: 15–100%)** (10 countries reporting)

*Reporting countries: Bulgaria, Croatia, Czechia, Greece, Hungary, Iceland, Luxembourg, Romania, Slovenia, Spain*

**Full vaccination uptake among healthcare workers in EU/EEA countries: median of 41.6% (range: 12–82.5%)** (10 countries reporting)

*Reporting countries: Bulgaria, Croatia, Czechia, Greece, Hungary, Iceland, Luxembourg, Romania, Slovenia, Spain*

**Country Reports:**

**DEU:** In the face of rising Corona numbers, Germany's intensive care doctors are calling for an immediate return to lockdown. Currently, around 2800 COVID-19 patients are in intensive care. However, given the current dynamics, another 5,000, 6,000 patients could be added to the intensive care unit.

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Nationwide, prosecutors have seen more than 25,000 cases of sneaky Corona emergency aid or other pandemic-related offences in the past year. In addition to abusive requests for Corona aids, the report also says fraud schemes such as sales of fake protective masks, drugs or vaccines are a concern for investigators nationwide.

……

Despite an official ban in advance, a demonstration of the initiative "Querdenken 351" with up to 5000 registered participants was carried out. During the demonstrations against the Corona measures, there were several incidents: almost 50 crimes were recorded. The police issued hundreds of expulsions and produced more than 900 complaints for violations of the Corona rules.

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**NDL**: A day before the Dutch parliamentary elections, some 2,000 people protested against the government and its lockdown over the coronavirus. In the run-up to the demonstration, trains to The Hague had been halted to prevent more people from entering the city.

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**FRA**: The nationwide curfew, which applies from 6 p.m., was "not enough" in some areas to prevent an increase in cases involving the coronavirus, particularly cases with the variant first detected in the UK. As a result, a new lockdown could possibly be imposed on Paris for the coronavirus. There are currently more people in intensive care units because of the coronavirus and other conditions than there were beds in intensive care units at the start of the pandemic.

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**ITA**: The Italian government expects the Corona situation in the country to improve "in the second half of spring". Due to the stricter restrictions and the growing number of vaccinated people, the government expects the number of infections to improve towards the end of the spring. The government has imposed a third lockdown on large parts of Italy, which came into force on Monday and runs until April 6, due to another sharp rise in the number of Corona infections. Regions with an incidence value of 250 automatically switch to the highest alarm level in red. This is currently the case for around three quarters of the country. Schools, colleges, cafes and restaurants will be closed in the affected regions from Monday. The sale of all non-urgently needed products is stopped.

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**LTU:** After several months of closure due to the Corona pandemic, museums and galleries have reopened under strict hygiene and distance rules. Shops with direct access from the street were also allowed to resume operations as part of the relaxation of the Corona restrictions. The same applies to several schools and educational institutions. However, initial restrictions remain unchanged in some parts of the country: until the end of the month, residents of the capital Vilnius and 15 other cities will not be allowed to travel to other towns and cities outside their own residence without a compelling reason. This is intended to increase the time for more vaccinations, to stop the spreading of the British variant of coronaviruses.

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**BGR**: The tourist summer season is scheduled to open on May 1, according to the government's plans. According to the Ministry of Tourism, this will be done under Corona requirements. Green corridors are intended to facilitate the entry of holidaymakers who are either vaccinated against COVID-19, have recovered from COVID-19 disease or have a negative PCR test. Mouth-nose protection remains mandatory for all persons staying in enclosed, communal spaces. In addition, a corona distance of at least 1.5 meters must be maintained. There are also additional numerous hygiene regulations.

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**NOR**: Oslo imposes the strictest restrictions since the start of the pandemic, as the number of cases rises. The number of reproductions in Norway's capital has now risen to 1.5. Among other things, residents are temporarily not allowed to welcome more than two guests to their own home. All students from eighth grade and secondary schools switch completely to digital lessons, and many students in the fifth to seventh grades also have to switch to homeschooling. Kindergartens will be closed during Easter week. All existing measures, including closed shops and restaurants, will continue.

## Subject in Focus

Update on COVID-19 vaccines & immune response

Although lockdowns can keep the coronavirus at bay, vaccination provides the sustainable path out of the pandemic. More than 60 different vaccines are either in development or current use against SARS-CoV-2. All of those in use have the same ultimate result - granting the body an enhanced ability to fend off viral attack - but the mechanisms they use differ considerably.
Vaccines are, in effect, training programmes for the immune system. Vaccines commonly use four types of mock attacks, all of which are being deployed against SARS-CoV-2.

- The oldest of these techniques is to present the immune system with the virus in a form that has been inactivated or significantly weakened, so that it cannot cause a full-blown infection. Both the Chinese **Sinovac** and **Sinopharm** vaccines use an **inactivated virus**.
- An alternative tactic involves injecting **protein fragments** that are structurally similar to SARS-CoV-2. **Novavax**, is using this technique in its COVID-19 vaccine.
- A more complex strategy involves inserting some of the RNA copied from SARS-CoV-2 into a version of a virus related to the common cold (known as an adenovirus) that can enter cells but has been neutered and cannot replicate effectively. The AstraZeneca/Oxford vaccine, the Johnson & Johnson jab and the Gamaleya serum developed in Russia all use this strategy.
- The newest method involves researchers creating genetic instructions, encoded in RNA or DNA, that lead the body's own cells to generating harmless proteins that look like the distinctive (spike) proteins of SARS-CoV-2 and subsequently triggers an immune response preparing the immune system to fight SARS-CoV-2. Both the **Pfizer/BioNTech** and **Moderna/NIAID** vaccines use this strategy widely known as **mRNA vaccine**.

Practically, all the vaccines being used give the body a much better chance of mounting a successful defence against SARS-CoV-2 than it could mount if left to fend unprepared.
The technologies differ in their capability to train the immune system and prepare it for evolved variants of the virus (e.g. the ones found in Britain and South Africa) and some tweaks might be necessary to keep the effectiveness of the vaccines high. The ease of tweaking, however, varies.
Let´s have a look on the different responses to the vaccines.

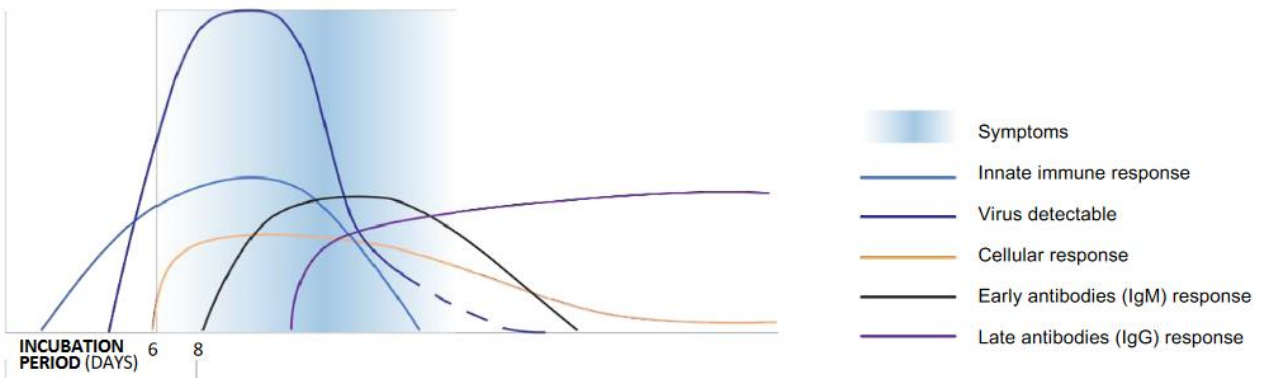
### THE IMMUNE RESPONSE

### Immune response to a viral infection

Two types of immunity are:

- **Innate immunity**
  - General immediate response to ANY infection
- **Adaptive immunity**
  - Specific response to an infection
  - Involves the **cellular response** (T cells) and the **antibody response** (B cells)
- Innate immune response is immediate, whereas cellular & antibody response usually starts after 6 to 8 days

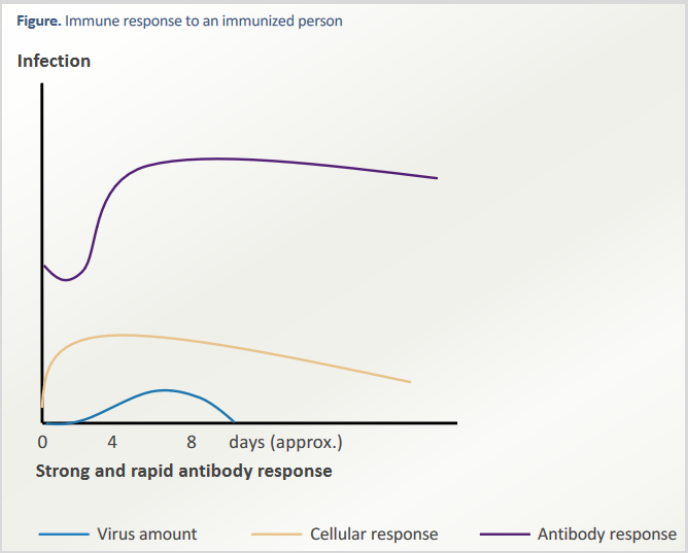
**Figure.** Immune response to viral infection



## Response in an immunized person

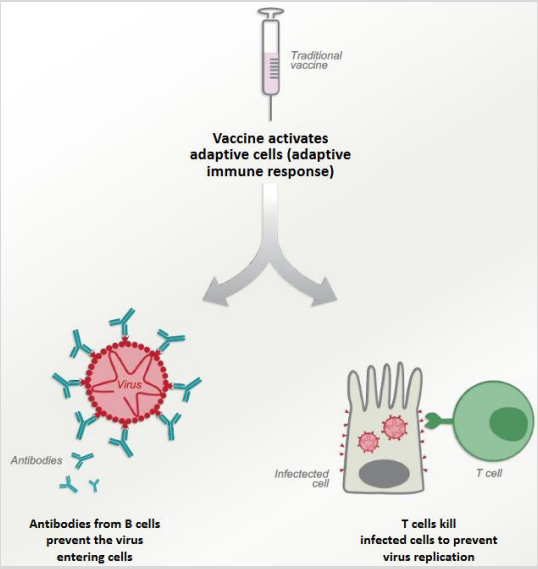
- When **adaptive immune cells (B cells and T cells)** encounter the same virus again, they respond rapidly and the immune system can effectively clear an infection before it causes disease
- Vaccines use this **immune memory** to protect us from infection
- Immune memory can result from a prior infection or from an effective vaccine

**Figure.** Immune response to an immunized person




## An immune response is induced by vaccines

- **Vaccines safely deliver an immunogen** (antigen able to elicit an immune response) to the immune system in order to train it to recognize the pathogen when it is encountered naturally by activating:
- **CD4+ helper T cells** that in turn stimulate:
  - **B- cells** to produce neutralizing antibodies specific to the virus
  - **CD8+ cytotoxic T cells** to recognize and kill cells infected by the virus




## Immunogens used in COVID-19 vaccines

- An **immunogen is a specific type of antigen** that is able to elicit an immune response
- The choice of immunogen for vaccines impacts what type of immune response is induced; as well as safety, development time, production time, costs and access to vaccines
- **Immunogens used** in current COVID-19 vaccines or COVID-19 vaccines in development:

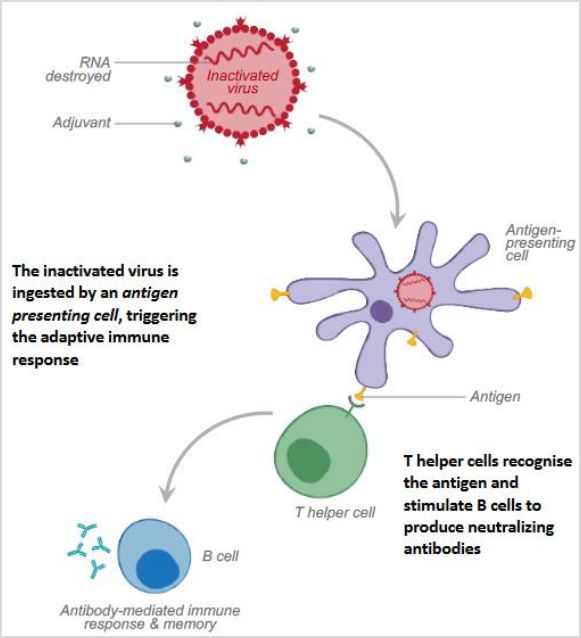
Inactivated virus | Viral subunit | Viral vector | RNA vaccines

**Table.** Advantages and disadvantages of immunogens used in vaccines

| IMMUNOGEN | WHAT IT IS | ADVANTAGE | DISADVANTAGE | EXAMPLE OF VACCINES |
|---|---|---|---|---|
| **Inactivated virus** | Inactivated dead virus | Induces strong antibody response | Requires large quantities of virus, low or no cellular response | Influenza, rabies hepatitis A |
| **Viral subunit** | A protein derived from a pathogen | May have fewer side effects than whole virus (redness, swelling at injection site) | May be poorly immunogenic; complex process | Influenza |
| **Viral vector** | Viral pathogen expressed on a safe virus that doesn't cause disease | Rapid development, strong cellular response, relatively easy to produce | Prior exposure to vector virus (eg. adenovirus) may reduce immunogenicity, some vectors require boosting with a different vector | Ebola |
| **Nucleic acid** | mRNA coding for a viral protein | Strong cellular immunity; rapid development | Relatively low antibody response | COVID-19 |

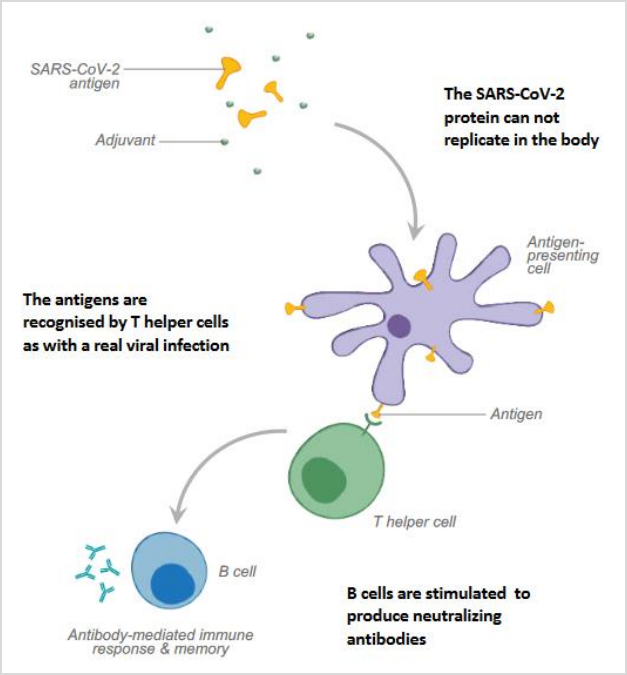
## Inactivated virus vaccines

- In inactivated virus vaccines, **the genetic material of the virus has been destroyed to stop disease producing capacity**
- Inactivated virus cannot replicate inside the body, so higher doses are needed
- Sometimes, an **adjuvant** (molecules that stimulate the immune system) is used to help strengthen the immune response
- Inactivated virus vaccines generally only induce **antibody-mediated immunity** (not cell -mediated immunity).



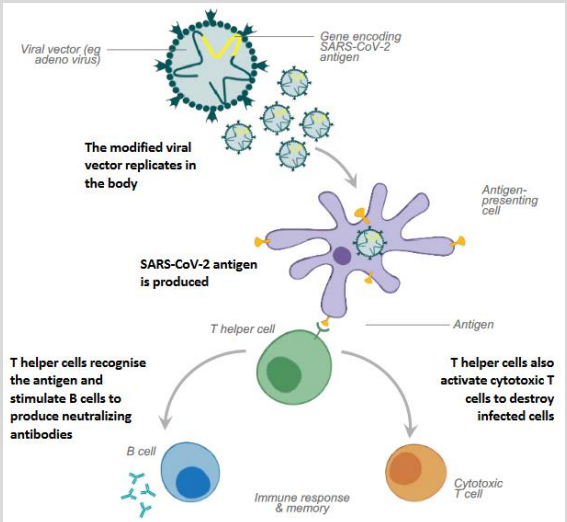

## Viral subunit vaccines

- Subunit vaccines **use the antigen of the virus without any genetic material**, usually with an adjuvant to give a better immune response
- Usually made using **recombinant** expression system (made in a cell without using the virus)
- With the help of antigen-presenting cells, the antigens are recognised by T helper cells as with a real viral infection
- Subunit vaccines generally induce mainly **antibody-mediated immunity**
- **Adjuvants** can enhance antibody response and also cell -mediated immunity.



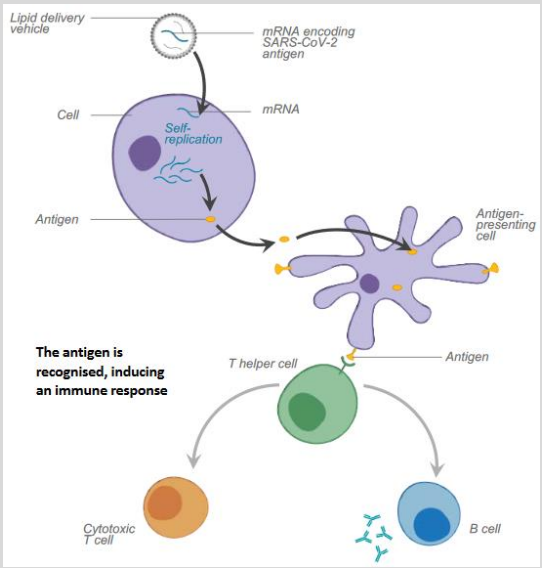

## Viral vector vaccines

- Viral vector vaccines **use a non-coronavirus vector modified to include a gene that encodes a target antigen**
- Examples: adenovirus, measles virus, vesicular stomatitis virus
- Can be replicating or non-replicating
- Non-replicating: infects a cell and produces SARS-CoV-2 antigen in that cell but not new virus. Replicating: upon infection produces SARS-CoV-2 antigen in that cell and new virus which infects other cells
- The SARS-CoV -2 antigen inside cells seen by body as if SARS-CoV-2 infection and induces T helper cells and cytotoxic T cells.



## RNA vaccines

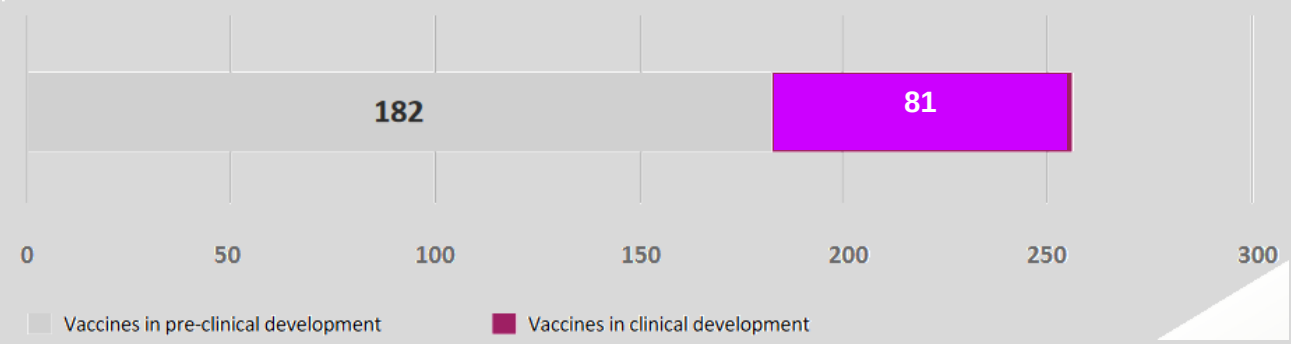
- RNA vaccines are antigen-coding strands of messenger RNA (mRNA) delivered inside a lipid coat
- Once inside cells, the mRNA is translated the protein antigen
- The antigen is recognised, inducing an immune reaction
- Seen by body as if virus inside cell so induces T-helper and cytotoxic T-cells, and antibodies
- mRNA also recognised by cells as 'pathogen' stimulating strong immune response.




## *VACCINE DEVELOPMENT*

### Preclinical & clinical development of COIVD-19 vaccines

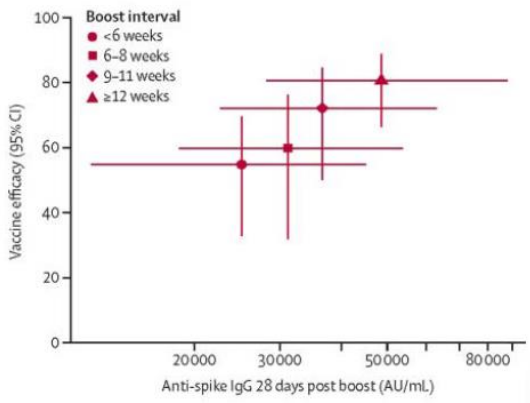
- As of 15 March 2021, there are 81 COVID-19 candidate vaccines in clinical development of which 15 are in Phase III trials and 4 are in Phase IV
- There are another 182 candidate vaccines in preclinical development
- More than 90% of all top candidate vaccines will be delivered through intra-muscular injection




### Most COVID-19 vaccines are designed for a two-dose schedule

- Two dose vaccination (prime-boost) works by mimicking natural immunity. The first dose primes immunological memory and the second dose solidifies it
- After a first vaccine dose, the immune system needs time to generate a response and to create memory cells that will recognize the pathogen if it is encountered again
- A larger time interval between the first and second dose may induce a stronger immune response compared to a short interval (An interval of 21-28 days between the doses is recommended for the mRNA vaccines (Pfizer-BioNTech and Moderna)
    - preliminary data from Astra Zeneca's COVID-19 vaccine trials show that a 12-week prime-boost interval may result in improved vaccine efficacy

Fig: Larger time interval between doses improves vaccine efficacy



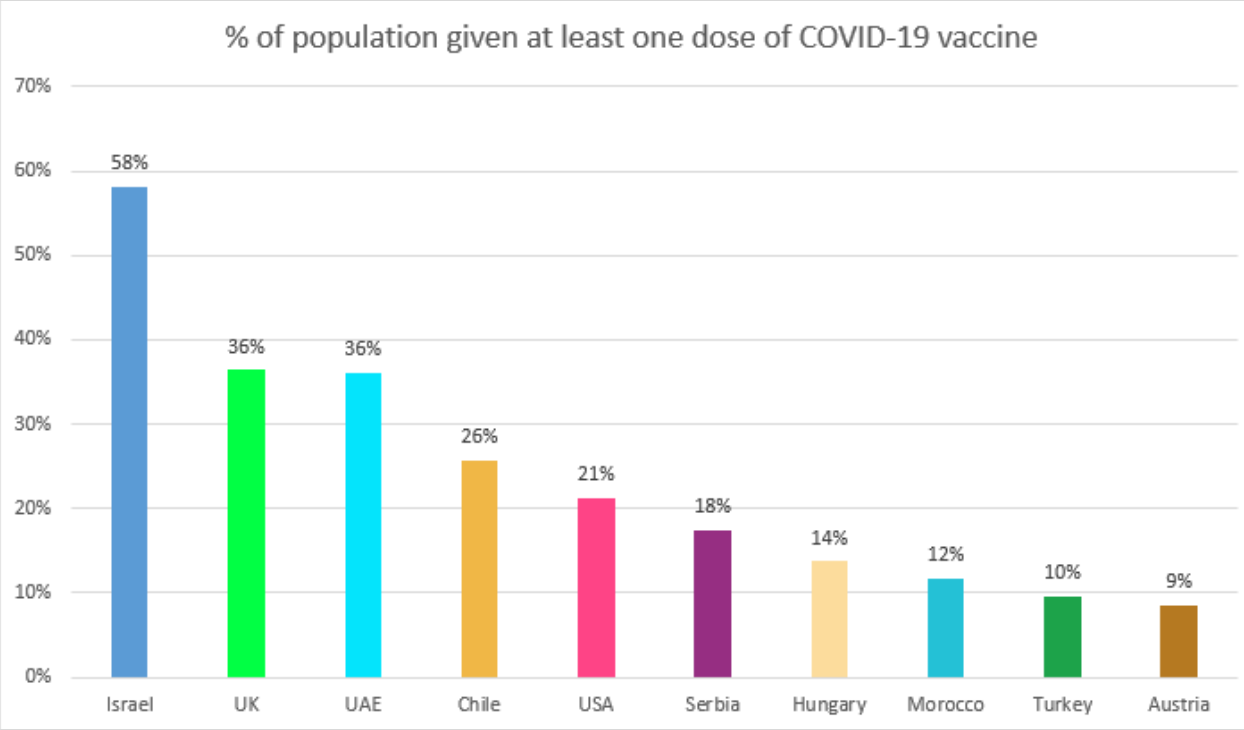

Relationship between neutralizing antibody binding 28 days after second dose, and vaccine efficacy against symptomatic COVID-19 of ChAdOx1 nCoV-19[1] (AstraZeneca COVID-19 vaccine)

## COVID-19 vaccine candidates in phase III or phase IV trials

| 16 CANDIDATES - VACCINES IN PHASE III CLINICAL EVALUATION | Vaccine platform | WHO EUL | Already in use |
|---|---|---|---|
| Pfizer/BioNTech + Fosun Pharma* | RNA based vaccine | X | X |
| Moderna + National Institute of Allergy and Infectious Diseases (NIAID)* | RNA based vaccine | X | X |
| CureVac AG | RNA based vaccine | | |
| AstraZeneca + University of Oxford* | Viral vector (Non-replicating) | X | X |
| CanSino Biological Inc./Beijing Institute of Biotechnology | Viral vector (Non-replicating) | | |
| Gamaleya Research Institute ; Health Ministry of the Russian Federation | Viral vector (Non-replicating) | | X |
| Janssen Pharmaceutical | Viral vector (Non-replicating) | | X |
| Sinovac Research and Development Co., Ltd | Inactivated virus | | X |
| Sinopharm + China National Biotec Group Co + Wuhan Institute of Biological Products | Inactivated virus | | X |
| Sinopharm + China National Biotec Group Co + Beijing Institute of Biological Products | Inactivated virus | | X |
| Institute of Medical Biology + Chinese Academy of Medical Sciences | Inactivated virus | | |
| Research Institute for Biological Safety Problems, Rep of Kazakhstan | Inactivated virus | | |
| Bharat Biotech International Limited | Inactivated virus | | X |
| Novavax | Protein subunit | | |
| Anhui Zhifei Longcom Biopharmaceutical + Institute of Microbiology, Chinese Academy of Sciences | Protein subunit | | |
| Zydus Cadila | DNA based vaccine | | |

## COVID-19 vaccine administration

- As of 15 March, more than **359 million vaccine doses have been administered**:
- Different vaccines (3 platforms) have been administered (**BioNTech/Pfizer, Moderna, Oxford/AZ, Gamaleya, Sinopharm, Sinovac, Bharat Biotech, Johnson & Johnson**)



## SARS-CoV-2 variants & COVID-19 vaccines

- Current SARS-CoV-2 variants involve mutations to the gene for the spike protein that is targeted by COVID-19 vaccines
- Several COVID-19 vaccines have reported reduced efficacy to protect against mild to moderate disease in people infected with SARS-CoV-2 variants, however the vaccines are still expected to protect against severe disease and death
- Studies are ongoing to examine if some vaccines may be more susceptible to effects of variants than others
    - those using smaller epitopes (the **receptor binding domain** on the spike protein) may be more susceptible than those using a larger part of the virus such as the **spike protein** or the **whole inactivated vir**us
- Other studies are exploring the development of COVID-19 vaccines that make it difficult for the virus variants to evade immunity, for example:
    - **multivalent vaccines** that include both new (derived from variants) and old forms of the spike protein in a single dose
    - **vaccines that target multiple sites on several viral prote**ins in contrast to vaccines that target only the SARS-CoV-2 spike protein

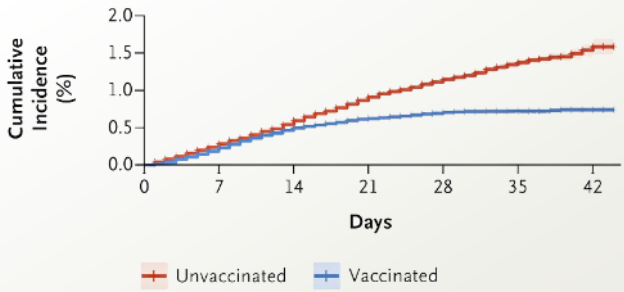
## Preliminary COVID-19 vaccination results

- A recent study showed that two doses of the Pfizer BioNTech vaccine **prevented 94% of symptomatic COVID-19 cases, 87% of hospitalizations** and **92% of severe disease** in 596,618 people vaccinated between 20 December and 1st of February in Israel
- Preliminary results from Scotland, show that four weeks after the first doses of the Pfizer BioNTech and Oxford AstraZeneca vaccines were administered the risk of hospitalization from COVID-19 fell by up to 85% and 94%, respectively. Combined **effectiveness for people over 80 was 81%**

**Table.** COVID-19 vaccine effectiveness in Israel

| Vaccine effectiveness | 14-20 days post dose 1 | ≥7 days post dose 2 |
|---|---|---|
| Documented infections | 46% (40-51%) | 92% (88-95%) |
| Symptomatic COVID-19 | 57% (50-63%) | 94% (87-98%) |
| Hospitalization | 74% (56-86%) | 87% (55-100%) |
| Severe disease | 62% (39-80%) | 92% (75-100%) |

**Figure.** Symptomatic COVID-19 in Israel following vaccination




## Global COVID-19 vaccine allocation

- The allocation of COVID-19 vaccines is guided by public health objectives. For the initial phase these objectives are:
    - reduce mortality
    - protect health systems
- To maximise the public health impact of a **limited supply of COVID-19 vaccines**, the global vaccines allocation mechanism targets:
    - **high risk groups** (people over the age of 65, people with cardiovascular diseases, cancer, diabetes, chronic respiratory disease or obese) **to reduce severe disease and mortality**
    - **health workers to protect the health system**
- These groups correspond to 20% of the global population
- Therefore, the first phase of COVID-19 vaccines allocation will be up to 20% of a country's population

## To keep in mind

**Because of the limited supplies, we need to maximize the impact by targeting the high risks groups**
**WHO recommends** prioritization based on the **SAGE Prioritization Roadmap**
**At risk groups to be vaccinated first, such as older adults, persons with underlying conditions, health workforce**

**In order to:**

- to reduce the severe cases among those populations
- to relieve congestion in health care settings
- to leave easy access for the entire population in need of healthcare that is not related to COVID-19
- to reduce mortality

**Vaccination** is one tool in our toolbox, we will need to use the other tools as well such as **Public Health and Social Measures**

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COVID-19 Crisis in Burkina Faso

**In cooperation with Bundeswehr HQ of Military Medicine**

## BURKINA FASO

| | |
|---|---|
| Area: | 274,200 km$^2$ |
| Population: | 21,510,181 |
| Capital: | Quagadougou |
| Age structure: | |
| 0-14 years: | 43,58% |
| 15-24 years: | 20,33% |
| 25-54 years: | 29,36% |
| 55-64 years: | 3,57% |
| 65 years and over: | 3,16% |

**CONFLICT:**
For a long time Burkina Faso was considered a very stable state in the crisis-ridden region of West Africa. But in 2014 Burkina Faso was rocked by public protests and the 27-year rule of President Blaise Compaoré was overthrown. After the historic demonstrations in 2014, a civil-military interim government was appointed to stabilize the country. However, a coup d'état was staged against the transitional government. Only after the intervention of the African Union (AU) and ECOWAS (Economic Community of West African States) elections were organized, and President Marc Roch Kaboré (former Prime Minister of President Blaise Compaoré from 1994 to 1996 and President of Parliament from 2002 to 2012) was elected. Although President Kaboré vowed to improve the quality of life for all citizens, his political program was severely hampered by economic pressures and terrorist activities. The state lost control of important parts of its territory, particularly the northern, northwestern, and eastern parts. High levels of poverty among the population, transnationally organized crime, the in-flow of weapons from Libya and a non-functioning security system in the country led to an extensive destabilization of the country. The conflict in Burkina Faso intensified in 2019. Attacks on civilians by armed groups increased and resulted in displacements. The number of internally displaced persons rose from 90,000 in January 2019 to over 760,000 in mid-February 2020 (according to UNHCR). Internally displaced persons fleeing conflict-affected regions live mainly in the Central North and the Sahel region, but increasingly also in the northern region and in the eastern part of the country. In addition, the country was hit by a severe flood in April 2020, which seriously endangers this year's harvest, while in other parts of the country people are struggling with water shortages and drought.

**HEALTH:**
"Modern" health care is organized on five levels (comparatively “village”, “department”, “province”, “region”, and “country”), the following facilities are operated on the respective levels: Poste de Santé Primaire (PSP), Center de Santé et de Promotion Sociale (CSPS), Center Médical (CM) or Center Médical avec Antenne Chirurgicale (CMA), Center Hospitalier Regional (CHR) and Center Hospitalier National (CHN). At the lowest level, the equipment is very poor or non-existent. There is usually no doctor in a CSPS. The center is managed by a nurse that would need to have the knowledge and skill comparable to an experienced doctor, which is never the case for obvious reasons. An example of the poor quality of treatment in these stations is the "CHN Yalgado Ouedraogo" in Ouagadougou, which has the reputation of being a death station. Doctors are overwhelmed and poorly paid here. Funds flow clandestinely. The conditions are chaotic by European standards. Those who can afford it take their sick

relatives to private hospitals, where the same doctors from "Yalgado" often work after their official working hours. Respiratory infections (particularly pneumonia) are the most common illnesses and leading cause of child death. Malaria and diarrheal diseases follow closely behind. Another problem is the infection rate of HIV/AIDS. The prevalence was reported to be approx. 0.8% in 2017, therefore Burkina Faso does not belong to the high prevalence countries. Meningitis is also a dangerous and often fatal infectious disease prevalent in the country. Burkina Faso is regularly hit by epidemics of meningococcal meningitis (meningitis) during the dry season from February to April. The poor security situation has restricted access to the health facilities, which hardly exist anyway. Long distances journeys are very dangerous, especially for women and children. The situation is worsened by the ban of the use of trucks and motorcycles introduced as part of the state of emergency in central Mali and in some areas in Niger and Burkina Faso. Motorcycles have been used by armed groups to carry out attacks, but medical services have also used them to deliver medicines and assistance.
The health infrastructure in certain areas of the Liptako Gourma region, the center of the refugee movement, has now collapsed. A clear overview of the situation is made difficult by access restrictions and a lack of overall data (granular or condensed). In the regions hardest hit by the conflict, trained medical workers have fled the violence. With approx. 80% of the remaining skilled workers being paid by international aid, the country became highly dependent on international funding. Within Burkina Faso, at least four central health facilities in the Sahel zone were closed last year, and 17 other stations only offer limited services in the Sahel zone and the north. This negatively affects the access to health services for over 120,000 people. According to the recent assessment in Soum province, 40% of displaced households indicated that at least one of their members became ill during their displacement and usually reported cases of malaria, cough, or diarrhea (UNHCR 02/27/2019). Trauma and psychosocial effects are expected because of (on-going) conflicts, especially among populations that have been repeatedly displaced. However, there is a lack of data on the situation and responses are limited. The local population is at any time afraid of being attacked.

**COVID-19 SITUATION:**
Like the overall data situation, the data situation on the current COVID-19 pandemic in Burkina Faso is very poor. So far, 12,372 cases of COVID-19 have been reported from the country, 144 patients have died so far. It is noteworthy that almost half of the COVID-19 victims were reported in the last four months. At the end of February 2021, Burkina Faso had 26 laboratories that could carry out Covid-19 diagnostics. While there was just one laboratory at the beginning of the pandemic, tremendous strides have been made towards decentralization and health care. This development is probably also responsible for the increase in the official numbers. Due to low test capacities and incomplete contact tracing, a significantly higher number of unreported cases has still to be assumed. Medicines for the treatment of COVID-19 are now also available directly at the test centers. In Burkina Faso, 11 ventilators are available throughout the country, and there are hardly any other intensive care capacities to care for COVID-19 patients. The gap in the West African country's health system is widening every day with the pandemic. Education experts estimate that 5.1 million children no longer go to school in Burkina Faso as a result of COVID-19. The Federal Republic of Germany is investing 13 million euros (8.5 billion francs CFA) as part of Team Europe to support Burkina Faso in its measures against the coronavirus.

**CONCLUSION:**
Due to the much poorer state of health of the population in Burkina Faso, many more people are at risk of a more severe course of disease than in Europe. Even though there are far fewer elderly people, chronic diseases and underlying conditions such as HIV, tuberculosis, malaria and other tropical infectious diseases make people more susceptible for COVID-19.
The uncontrolled spread and the high number of unreported cases are likely to let WHO’s big concern of a mortality rate five to ten times higher than the global average become reality. However, without sufficient testing capacities, it’s hard to detect if this horror-scenario materializes.

# Burkina Faso

**30.1** Index Score **145**/195


| | COUNTRY SCORE | AVERAGE SCORE* |
|---|---|---|
| **PREVENTION** | **18.0** | **34.8** |
| Antimicrobial resistance (AMR) | 0 | 42.4 |
| Zoonotic disease | 1.8 | 27.1 |
| Biosecurity | 0 | 16.0 |
| Biosafety | 0 | 22.8 |
| Dual-use research and culture of responsible science | 0 | 1.7 |
| Immunization | 90.4 | 85.0 |
| **DETECTION AND REPORTING** | **33.3** | **41.9** |
| Laboratory systems | 58.3 | 54.4 |
| Real-time surveillance and reporting | 20 | 39.1 |
| Epidemiology workforce | 50 | 42.3 |
| Data integration between human/ animal/environmental health sectors | 0 | 29.7 |
| **RAPID RESPONSE** | **38.0** | **38.4** |
| Emergency preparedness and response planning | 12.5 | 16.9 |
| Exercising response plans | 50 | 16.2 |
| Emergency response operation | 33.3 | 23.6 |
| Linking public health and security authorities | 0 | 22.6 |
| Risk communication | 25 | 39.4 |
| Access to communications infrastructure | 65.6 | 72.7 |
| Trade and travel restrictions | 100 | 97.4 |

| | COUNTRY SCORE | AVERAGE SCORE* |
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| **HEALTH SYSTEM** | **5.6** | **26.4** |
| Health capacity in clinics, hospitals and community care centers | 1.1 | 24.4 |
| Medical countermeasures and personnel deployment | 0 | 21.2 |
| Healthcare access | 29.4 | 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 | 0 | 42.2 |
| **COMPLIANCE WITH INTERNATIONAL NORMS** | **44.8** | **48.5** |
| IHR reporting compliance and disaster risk reduction | 50 | 62.3 |
| Cross-border agreements on public and animal health emergency response | 0 | 54.4 |
| International commitments | 78.1 | 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** | **42.6** | **55.0** |
| Political and security risks | 42.9 | 60.4 |
| Socio-economic resilience | 53.1 | 66.1 |
| Infrastructure adequacy | 33.3 | 49.0 |
| Environmental risks | 75.6 | 52.9 |
| Public health vulnerabilities | 13.7 | 46.9 |

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

www.ghsindex.org

Source:

https://www.liportal.de/burkina-faso/
https://reliefweb.int/report/burkina-faso/burkina-faso-immapdfs-covid-19-analyse-de-la-situation-janvier-2021
https://www.zdf.de/nachrichten/heute-journal/corona-krise-in-burkina-faso-100.html
https://reliefweb.int/report/burkina-faso/central-sahel-breaking-point-donors-announce-17-billion-scale-aid
https://www.devex.com/news/surging-violence-in-burkina-faso-threatens-women-s-access-to-health-care-98291
https://ec.europa.eu/commission/presscorner/detail/de/ip_20_1130
https://reliefweb.int/report/burkina-faso/unicef-burkina-faso-covid-19-situation-report-no-4-25-june-22-july-2020
https://data.humdata.org/visualization/covid19-humanitarian-operations/?c=BFA

## MilMed CoE VTC COVID-19 response

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| Topics former VTCs | The NATO Centre of Excellence for Military Medicine is putting its expertise and manpower to aid in any way possible during the pandemic. The VTC is for interested participants (experts) to exchange experiences, management regulations and restrictions due to COVID-19. We would like to propose just one of the most important topics in the next iteration. We will have some experts giving a short briefing and then afterward we will have time for questions and experiences as well as a fruitful discussion.<br><br>**Topics former VTCs:**<br>• Regulations on the public, military and missions abroad. Medical Treatment Facilities: how equipped they are, is there pooling / isolation of COVID-19 patients in separate facilities.<br>• Testing strategies<br>• Aeromedical evacuation<br>• De-escalation strategy and measures<br>• Collateral damage of COVID-19 emphasing Mental Health Aspects and other non COVID related diseases<br>• Immunity map, national strategies to measure and evaluate the immunity level"<br>• Mental Health<br>• Treatment of mild symptomatic cases of COVID-19<br>• Transition home office back to the office<br>• COVID-19 Second Wave prediction and preparedness based on facts/experiences, modelling and simulation<br>• Perspectives of the current COVID-19 vaccine development<br>• National overview on current COVID-19 situation<br>• Long term effects of COVID-19 and the impact on force capability<br>• Overview on current COVID-19 situation in Missions<br>• Civil – military cooperation in view of COVID-19<br>• Immunity development versus reinfections of COVID-19<br>• The current status of SARS-CoV-2 vaccine development<br>• Resilience strategies from the private sector<br>• Vaccination: News and Facts<br>• Vaccination and Variants in Concern: News and Facts<br>---------- |
| Vaccination and Variants of Concern: New´s and Facts | **Vaccination and Variants in Concern: New´s and Facts**<br>We had very comprehensive national briefings of Poland, the Netherlands and France letting us know about the current status of vaccination in their countries, the strategies of their government and also how military is involved in the national campaigns as well in what priorisation the soldiers will be vaccinated.<br>These very useful briefing where followed by briefings by GBR and Italy taking about the way of sequencing and the quantity and distribution of the different variants of SARS-CoV-2 and the Variants of concern.<br>All these very scientific and informative presentations were topped off with a short briefing about the perceptive of a Privat Health Security Intelligence Unit on Variants of Concern of COVID-19. This presentation gave a far beyond outlook at the current pandemic situation and also approaches health topics with a potential impact on the global community beside of COVID.<br>All briefings lead to a very good discussion between the briefer and the audience. Like last time the audience was very interested in the strategy of the countries for getting their soldiers vaccinated and how the countries handle vaccination for soldiers abroad. The EU was keen on knowing how countries will get their embassy personal vaccinated. During the discussions we found out, that most countries will rely on Host Nation support to vaccinate their soldiers stationed in a foreign country only one nation will repatriate their soldiers to get vaccinated in their own country. |

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| | All nations will vaccinate their soldiers only with EMA or FDA approved vaccines. In all countries briefing and as well in those leading the discussions, soldiers going to a mission are in first line for receiving a vaccination and for all soldiers it will be mandatory if they would like to be stationed aboard. Unlike last week when only one country already started to vaccinate their soldiers this week several other countries also reported on the start of the vaccination campaigns for soldiers. Most of the countries are relying on the vaccination the government are distributing and do not have their own stock of vaccine designated for soldiers.<br>Talking about sequencing and the variants of concern it was clearly seen that in most country the new British variant was the most recognized and sequenced variant followed by the south African one. There were different other variants in a very small amount mentioned. GBR clearly showed their very early implementation of a very innovative way to start sequencing in a very early state of the pandemic so that it was very understandable why the British variant was first recognized in GBR and not in another state. GBR is one of the only countries worldwide which already achieved to sequence 10% of the positive cases in England. Most of the other countries just started their sequencing programs and are far away from the 5-10% range the WHO and EU would like countries to achieve. It was made clear in the last briefing that this lack of adequate genomic sequencing to support the surveillance lead to a loss of a lot of COVID-19 clarity around the planet. So, there is a lot of information we just do not know. Of course we seem to do a lot of testing and reporting and that is very important but these efforts only touch the edge of the iceberg and with this very new disease there is a lot of information lost as we are just not able to find it until now.<br>But as expert assume the next big wave around May 2021, we will find out by the hight of that wave if all our surveillance and regulation and of course vaccination strategies had been well implemented and should be followed. With this disease it is still a long way to go and a lot to learn.<br><br>The next VTC will be held on 24 March, with the topic "**Vaccinated Personnel – National Regulations for Deployments"** |

## Recommendations

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| Recommendation for international business travellers<br><br>As of 19th October 2020<br><br>Updated 2nd December 2020 by ECDC and 12th January by CDC | 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.<br>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.<br>WHO Public health considerations while resuming international travel.<br><br>**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.**<br>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.<br><br>**In the case of non-deferrable trips, please note the following**<br>• Many airlines have suspended inbound and outbound flights to affected countries. Contact the relevant airline for up-to-date information on flight schedules.<br>• Check your national foreign office advices for regulations of the countries you´re traveling or regulations concerning your country.<br>• Information's about the latest travel regulations and De-escalation strategy measures you can find at IATA. For Europe you will find more information here. For the US here.<br><br>**Most countries implemented strikt rules of contact reduction:**<br>• Everyone is urged to reduce contacts with other people outside the members of their own household to an absolutely necessary minimum.<br>• In public, a minimum distance of 1.5 m must be maintained wherever possible.<br>• Staying in the public space is only permitted alone, with another person not living in the household or in the company of members of the own household (for most countries, please check bevor traveling).<br>• Follow the instructions of the local authorities.<br><br>**Risk of infection when travelling by plane:**<br>The risk of being infected on an airplane cannot be excluded, but is currently considered to be low for an individual traveller. The risk of being infected in an airport is similar to that of any other place where many people gather. If it is established that a COVID-19 case has been on an airplane, other passengers who were at risk (as defined by how near they were seated to the infected passenger) will be contacted by public health authorities. Should you have questions about a flight you have taken, please contact your local health authority for advice.<br><br>**General recommendations for personal hygiene**, cough etiquette and keeping a distance of at least one metre from persons showing symptoms remain particularly important for all travellers. These include:<br>• Perform hand hygiene frequently. Hand hygiene includes either cleaning hands with soap and water or with an alcohol-based hand rub. Alcohol-based hand rubs are preferred if hands are not visibly soiled; wash hands with soap and water when they are visibly soiled;<br>• Cover your nose and mouth with a flexed elbow or paper tissue when coughing or sneezing and disposing immediately of the tissue and performing hand hygiene;<br>• Refrain from touching mouth and nose; See also: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public<br>• If masks are to be worn, it is critical to follow best practices on how to wear, remove and dispose of them and on hand hygiene after removal. |

- WHO information for people who are in or have recently visited (past 14 days) areas where COVID-19 is spreading, you will find here.

**Travellers who develop any symptoms during or after travel should self-isolate; those developing acute respiratory symptoms within 14 days upon return should be advised to seek immediate medical advice, ideally by phone first to their national healthcare provider.**
Source: WHO and ECDC

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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 you can find here.**
- 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.

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**European Commission**:

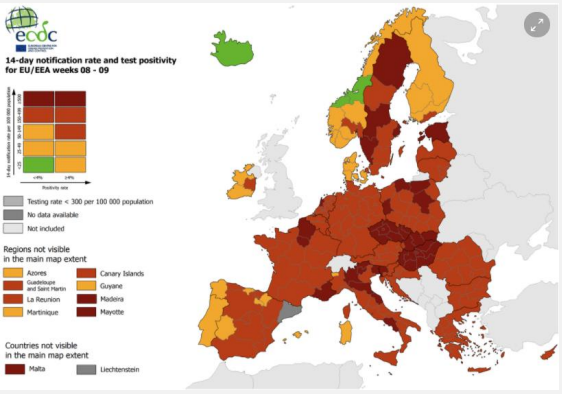
On 13 May, the European Commission presented guidelines and recommendations to help Member States gradually lift travel restrictions, with all the necessary safety and precautionary means in place.

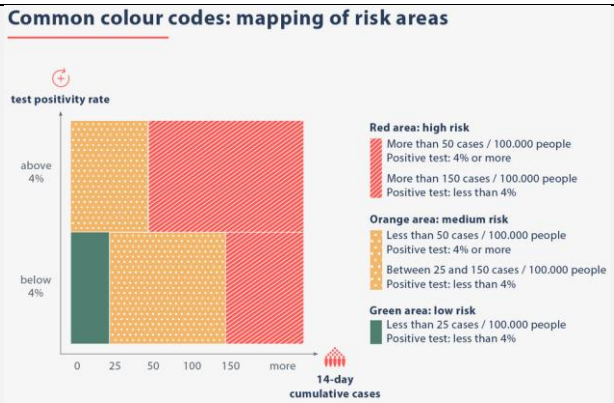
On 13 October, EU Member States adopted a Council Recommendation on a coordinated approach to the restriction of free movement in response to the COVID-19 pandemic.

*1. Common criteria*
- **the notification rate** (the total number of newly notified COVID-19 cases per 100 000 population in *the last 14* days at regional level)
- **the test positivity rate** (the percentage of positive tests among all tests for COVID-19 infection carried out during the last week)
- **the testing rate** (the number of tests for COVID-19 infection per 100 000 population carried out during the *last week*)

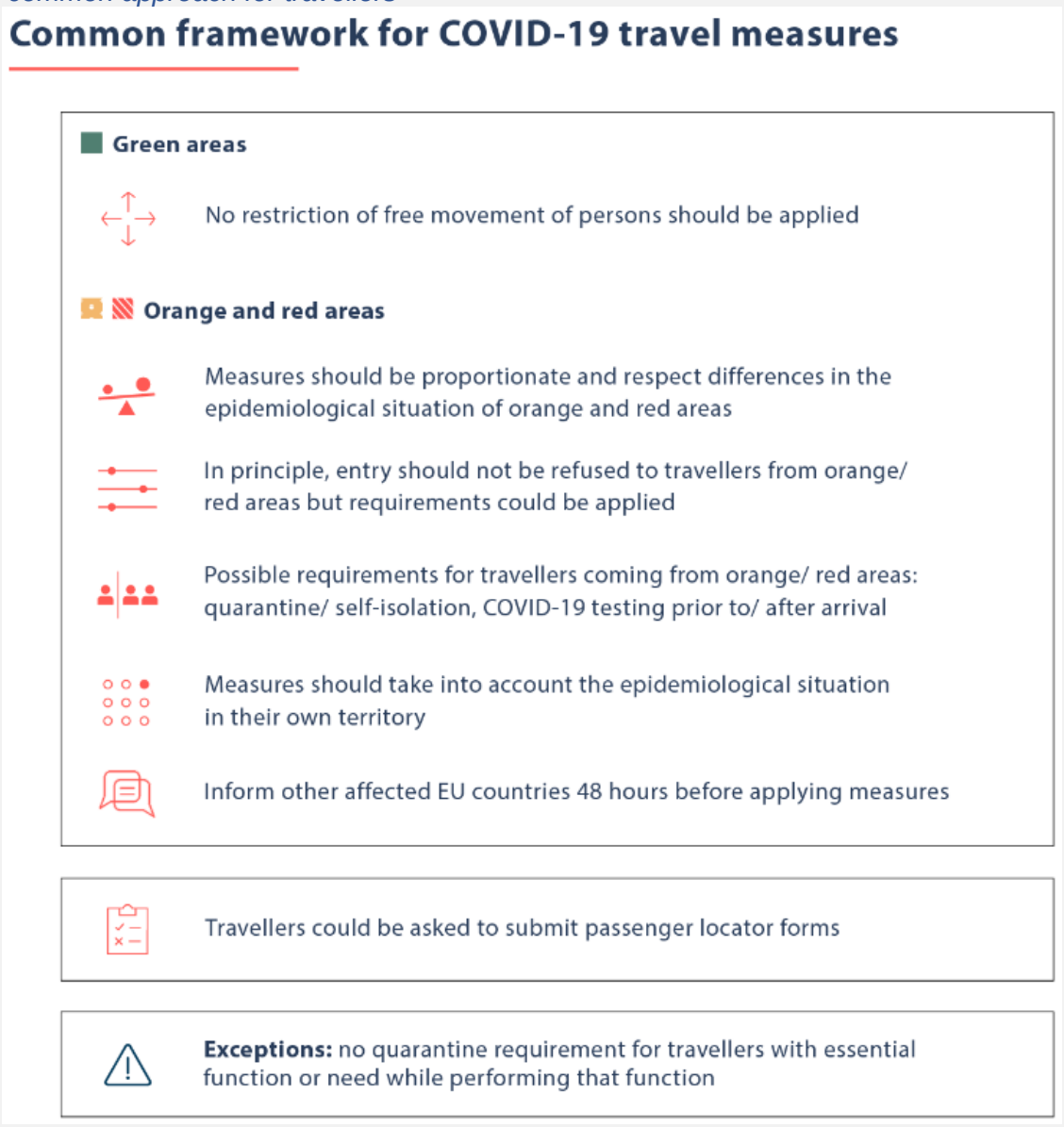
*2. A common map*
The ECDC will publish a map of EU Member States, broken down by regions, which will show the risk levels across the regions in Europe using a traffic light system. See also "Situation in Europe".

Areas are marked in the following colours:
- **green** if the 14-day notification rate is lower than 25 cases per 100 000 and the test positivity rate below 4%;
- **orange** if the 14-day notification rate is lower than 50 cases per 100 000 but the test positivity rate is 4% or higher or, if the 14-day notification rate is between 25 and 150 cases per 100 000 and the test positivity rate is below 4%;
- **red** if the 14-day notification rate is 50 cases per 100 000 or higher and the test positivity rate is 4% or higher or if the 14-day notification rate is higher than 150 cases per 100 000;
- **grey** if there is insufficient information or if the testing rate is lower than 300 cases per 100 000.




*3. A common approach for travellers*




*4. Clear and timely information to the public about any restriction*

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.

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| | More information about traveling in the EU by the European Commission you will find here:<br>https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/travel-and-transportation-during-coronavirus-pandemic_en<br>https://www.consilium.europa.eu/en/policies/coronavirus/covid-19-travel-and-transport/ |

| Risk Assessment | |
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| Global | • Because of global spread and the human-to-human transmission the **high** risk of further transmission persists.<br>• Travellers are at risk of getting infected worldwide. It is highly recommended to avoid all unnecessary travel for the next weeks.<br>• Individual risk is dependent on exposure.<br>• National regulation regarding travel restrictions, flight operation and screening for single countries you will find here and here.<br>• Official IATA changed their travel documents with new travel restrictions. You will find the documents here.<br>• Public health and healthcare systems are in high vulnerability as they already become overloaded in some areas with elevated rates of hospitalizations and deaths. Other critical infrastructure, such as law enforcement, emergency medical services, and transportation industry may also be affected. Health care providers and hospitals may be overwhelmed.<br>• Asymptomatic persons as well as infected but not sickened persons could be a source of spreading the virus. Therefore, no certain disease-free area could be named globally. |
| Europe<br><br>As of 23rd of October 2020 | ECDC assessment for EU/EEA, UK as of 23 October 2020:<br>Under the current classification system, based on epidemiological indicators, the epidemiological situation in countries is classified as *stable*, *of concern* or of *serious concern*.<br>The majority of countries in the European region are currently classified as experiencing an epidemiological situation of **serious concern** due to the increasing case notification rates and/or test positivity≥3% as well as the high notification rates in the older age groups and/or high mortality rates.<br>Countries have implemented various non-pharmaceutical interventions, but these have not been sufficiently effective in controlling transmission due to several factors:<br>• adherence to the measures was sub-optimal;<br>• the measures were not implemented quickly enough;<br>• or the measures were insufficient to reduce exposure.<br>As a result, the epidemiological situation is now rapidly deteriorating in most countries.<br>**There are currently only six countries in the region that are classified as experiencing a *stable epidemiological situation*.**<br>• In countries where the epidemiological situation is stable:<br>• the **probability of infection** for the population is **generally low** but **the impact of infection** still **varies** depending on the individuals affected;<br>• the risk for the **general population** in these countries is **low;**<br>• for **vulnerable individuals**, including the elderly and people with underlying medical conditions, the risk is **moderate**.<br>Nevertheless, in these six countries, there is still ongoing transmission and the situation must be closely monitored.<br>**Based on the latest available data to ECDC, there are currently no countries categorised as having an epidemiological situation '*of concern*'.**<br>**In countries where the epidemiological situation is of serious concern:**<br>• there is a **high risk** to the **general population**,<br>• and for **vulnerable individuals** the COVID-19 epidemiological situation represents a **very high risk**.<br>In these countries the continuously increasing trend in notification rates calls for strong public health action in order to prevent the imminent risk that health care systems will be overwhelmed, rendering them unable to provide safe, adequate care. |
| As of 15th of February 2021 | **ECDC** assessed the risk of the **two new variants** of SARS-CoV-2, as well as the risk of spreading in the EU and the increased impact on health systems in the risk assessment 15th of February 2021 |

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| | **Risks associated with new variants of current concern:**<br>**The risk associated with further spread of the SARS-CoV-2 VOCs** in the EU is currently assessed as **high** to **very high** for the *overall population* and **very high** for *vulnerable individuals*. This assessment is based on several findings and concerns:<br>1. the increased transmissibility,<br>2. recently found evidence of increased severity and<br>3. the potential for the existing licensed COVID-19 vaccines to be partially or significantly less effective against a VOC,<br>4. combined with the high probability that the proportion of SARS-CoV-2 cases due to B.1.1.7 (and possibly also B.1.351 and P.1) will increase.<br><br>Therefore, States are recommended to continue to advise their citizens of the need for non-pharmaceutical interventions in accordance with their local epidemiological situation and national policies and, in particular, to consider guidance on the avoidance of non-essential travel and social activities.<br>Source: https://www.ecdc.europa.eu/sites/default/files/documents/RRA-covid-19-14th-update-15-feb-2021.pdf<br>• |

## References:


- European Centre for Disease Prevention and Control www.ecdc.europe.eu
- World Health Organization WHO; www.who.int
- Centres for Disease Control and Prevention CDC; www.cdc.gov
- European Commission; 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/


## Disclaimer: