



Update 66 (20th of April 2021)

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



**Force Health Protection Branch FHPB (former DHSC) NATO MILMED COE
in Munich**

20th of April 2021

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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

- Within a week, [more new corona infections have been reported worldwide than ever before](#). There were 5.2 million new cases, the eighth consecutive weekly increase. The number of reported deaths rose on a weekly basis for the fifth consecutive year. The WHO is particularly concerned about the increase in corona infections and hospital admissions among 25-59-year olds.
- **IND/GBR**: The new variant first found in India is now [under investigation in GBR](#). It will be determined if it spreads more easily and evades vaccines. More than 70 cases have been identified in England and Scotland some of them were not linked to travel.
- **WHO**: The [Emergency Committee gave new advice on vaccines, variants, international travel and other issues](#).
- **UN**: In the face of an out-of-control Corona pandemic, governors of **Brazilian** states have [asked for "humanitarian assistance" to the United Nations](#). They asked for help buying vaccines and intubation drugs.
- **India** is in the midst of a second wave of COVID-19 according to a report from the [Lancet COVID-19 Commission](#). The report suggests that the situation is likely to worsen without significant action. The surge in cases may be driven in part by the emergence of a new 'double mutant' variant in India.
- **FDA**: On Friday, the antibody drug "**Bamlanivimab**" was [revoked for emergency approval](#) for COVID-19 treatment. After it was found that virus variants were resistant to this antibody and that the benefits of using this preparation alone were no greater than possible risks.
- **WHO**: [Updated the review of latest evidence](#) of rare adverse blood coagulation events with AstraZeneca COVID-19 Vaccine (Vaxzevria and Covishield) of the Global Advisory Committee on Vaccine Safety (GACVS).

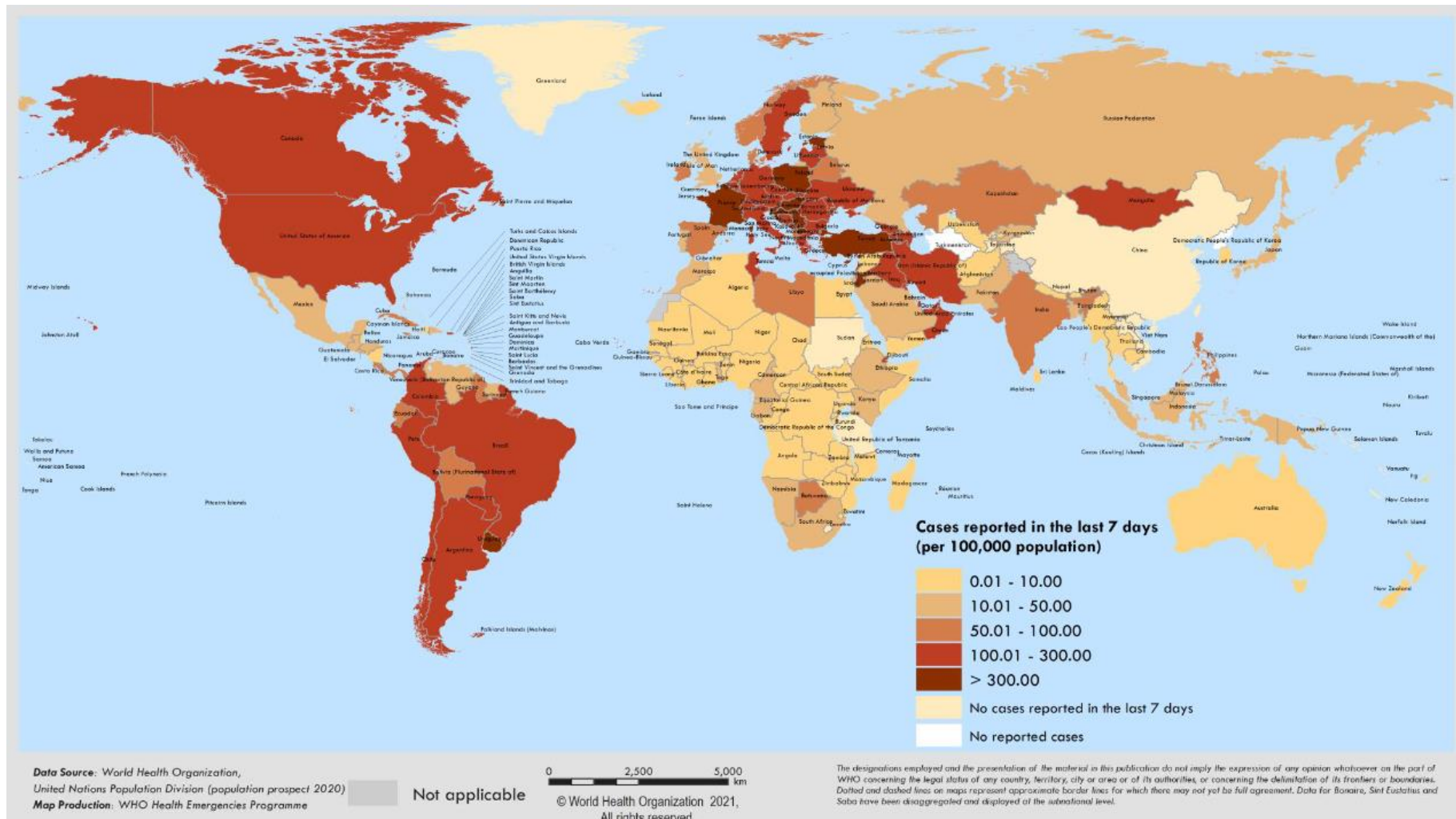
GLOBALLY ↗ 142 152 550 confirmed cases 127 500 000 recovered 3 030 961 deaths
EU/EEA and the UK ↘ 47 443 459 confirmed cases 42 710 000 recovered 1 017 104 deaths
USA ↘ (7-days incidence 139,6) 31 602 854 confirmed cases 29 970 000 recovered 565 313 deaths
India ↗ (7-days incidence 112,7) 15 320 972 confirmed cases 12 310 000 recovered 180 530 deaths
Brazil ↘ (7-days incidence 218,1) 13 973 695 confirmed cases 12 450 000 recovered 374 682 deaths
France ↘ (7-days incidence 341,4) 5 296 222 confirmed cases 4 634 000 recovered 101 180 deaths
Russia ↗ (7-days incidence 41,0) 4 657 509 confirmed cases 4 418 000 recovered 104 173 deaths

Please click on the headlines to jump into the document

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Map of countries with reported COVID-19 cases (last 7 days), as of 29 to 13 April 2021



Worldwide Situation

Global Situation

[FDA Revokes Emergency Use Authorization for Monoclonal Antibody Bamlanivimab](#)

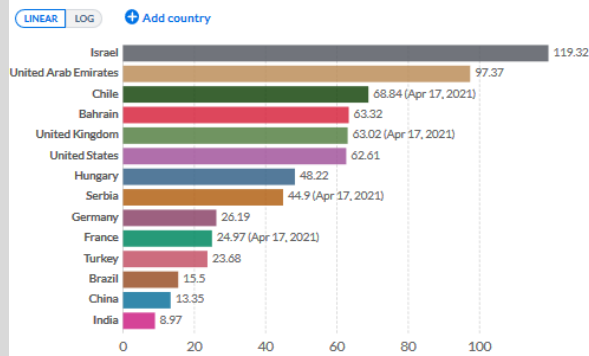
The U.S. Food and Drug Administration (FDA) has revoked emergency approval for COVID-19 treatment for the antibody drug “Bamlanivimab”. It was a monoclonal antibody developed by us pharmaceutical company Eli Lilly, whose use in November was conditionally approved for the treatment of mild to moderate COVID-19 diseases, the FDA announced. After the analysis of further data, it was found that virus variants were resistant to this antibody and that the benefits of using this preparation alone were no greater than possible risks. However, approvals for other antibody preparations, including combined ones, would be maintained.

Source: <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-revokes-emergency-use-authorization-monoclonal-antibody-bamlanivimab>

GBR issues new advice on COVID-19 vaccination for pregnant women

[Vaccination report](#)

COVID-19 vaccine doses administered per 100 people, Apr 18, 2021
Total number of vaccination doses administered per 100 people in the total population. This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).

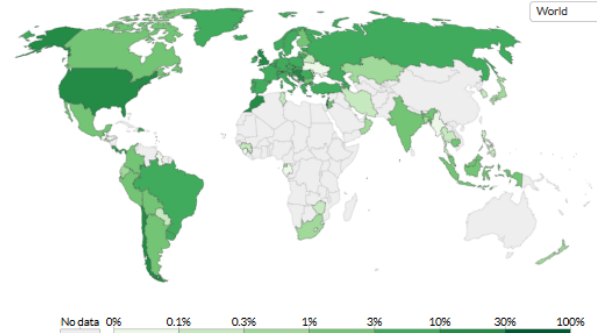


Source: Official data collated by Our World in Data - Last updated 19 April, 15:30 (London time)
OurWorldInData.org/coronavirus • CC BY

Our World
in Data

Share of the population fully vaccinated against COVID-19, Apr 18, 2021

Share of the total population that have received all doses prescribed by the vaccination protocol. This data is only available for countries which report the breakdown of doses administered by first and second doses.



Source: Official data collated by Our World in Data - Last updated 19 April, 15:30 (London time)
OurWorldInData.org/coronavirus • CC BY

Our World
in Data

Country reports on vaccination

BioNTech: The European Union has drawn an order option for the delivery of another 100 million doses of the vaccine from BioNTech and Pfizer. This means that the 27 EU member states will receive a total of 600 million doses of vaccine this year, according to BioNTech and Pfizer.

USA: Four months after the start of the vaccination campaign in the US, more than half of all adults - about 130 million people - received at least one dose of vaccination. As a result, almost one in three adults is fully vaccinated. In the most vulnerable age group aged 65 and over, 81 percent received an initial dose and about two-thirds were fully vaccinated.

Alaska wants to make coronavirus vaccines available to tourists at airports. Vaccination sat at airports in Anchorage, Fairbanks, Juneau and Ketchikan from June 1. At the end of April there will be a test phase for travelling residents.

GBR: The [Joint Committee on Vaccination and Immunisation \(JCVI\)](#) advised that pregnant women should be offered the COVID-19 vaccine at the same time as the rest of the population, based on their age and clinical risk group. There have been no specific safety concerns identified with any brand of coronavirus vaccines in relation to pregnancy. Real-world data from the United States shows that around 90,000 pregnant women have been vaccinated, mainly with mRNA vaccines including Pfizer-BioNTech and Moderna, without any safety concerns being raised. Based on this data, the JCVI advises that it's preferable for pregnant women in the UK to be offered the Pfizer-BioNTech or Moderna vaccines where available. There is no evidence to suggest that other vaccines are unsafe for pregnant women, but more research is needed. They still advise that pregnant women should discuss the risks and benefits of vaccination with their clinician, including the latest evidence on safety and which vaccines they should receive.

IND: The Indian Medicines Agency has granted emergency approval for the Russian vaccine Sputnik V. It is the third vaccine approved in India - after AstraZeneca and Bharat Biotech's home-made vaccine. According to the report, India wants to produce 850 million doses of Sputnik V vaccine per year. According to the Ministry of Health, nearly 110 million Corona vaccinations have been administered in the country so far.

PAK: The authorities decided yesterday that vaccination of people aged between 50 and 59 will start from next week. The country has so far relied largely on donated or imported Chinese vaccines given to health care workers and the elderly. By May, Pakistan expects 15 million doses of vaccines under the UN-backed Covax program.

PSE: The Palestinian authorities in the Gaza Strip have announced the highest number of Corona deaths in a day. The ministry of health said 23 deaths were reported within 24 hours, bringing the total number of deaths from the pandemic in the Palestinian territory to 761. The Gaza Strip, with a population of about two million, suffers from a shortage of vaccines.

BHI: Demonstrations have resumed in Sarajevo over the slow procurement of vaccines against the coronavirus. They also denounced poor care for those suffering from COVID-19 and called for the resignation of the Bosnian government as a whole. The vaccines that are available come from international donations or the international vaccine program Covax.

SWE: In the Stockholm region, hundreds of doses of the AstraZeneca vaccine have had to be thrown away every day because people refuse to be vaccinated with it. It was not possible to find other people willing to have the vaccine quickly enough, so that the vaccine was discarded. Currently, the AZ vaccine is only administered to over-65s in Sweden.

Country Reports:

PAK: On Sunday, the highest death toll linked to the coronavirus was reported for a single day since the start of the pandemic. Authorities said 149 deaths were confirmed within 24 hours.

USA: US immunologist Anthony Fauci expects coronavirus vaccinations for children of all ages by early next year at the latest. For children and adolescents aged 12 and over, he assumes that vaccinations will be available at the beginning of the next school year. Currently, young people in the United States can only be vaccinated from the age of 16.

HKG: Flights from India, Pakistan and the Philippines will be suspended for two weeks from 20 April. The move comes as the three countries are classified as "extremely high risk" as the mutant virus variant N501Y was introduced into the Asian financial metropolis, authorities said.

NZL: For the first time since the start of the pandemic, quarantine-free travel between New Zealand and Australia has been possible since Monday. New Zealanders have been able to travel to Australia without quarantine since October but have had to be isolated for two weeks on their return journey. New Zealand is considered a model country in the crisis due to extremely strict measures and close contact tracing. For a long time, there has been a great deal of normality. Australia is also successful in dealing with the pandemic.

ZWE: A total of 3,000 inmates are to be released from prisons to curb the spread of the coronavirus. According to media reports, several hundred prisoners were released over the weekend. In Zimbabwe, many prisons are overcrowded, but at the same time there is a fear of a new wave of infection. The president's amnesty scheme includes women, terminally ill inmates and people who have served at least a third of their jail sentences. Prisoners serving a jail sentence for offences such as murder, treason, sexual offences and public violence are not subject to amnesty. Officials say the number of inmates in Zimbabwe is more than 20,000, although the 46 prisons were built for only about 14,000 people. According to human rights organisations, the hygienic conditions are poor and there is a shortage of food in prisons. In Zimbabwe, about 37,000 corona cases and 1,500 deaths have been confirmed so far, according to the WHO.

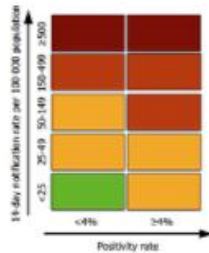
IND: A one-week curfew will apply in New Delhi from today. Several other cities in the 1.3-billion-strong country had already gone into a new lockdown over the weekend. Most recently, 274,000 new Corona cases were recorded across the country within 24 hours - a high.

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 15 April 2021



14-day COVID-19 case notification rate per 100 000 population and test positivity, EU/EEA weeks 13 - 14



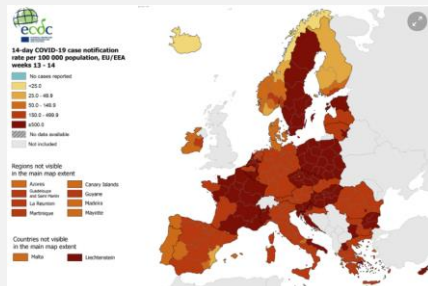
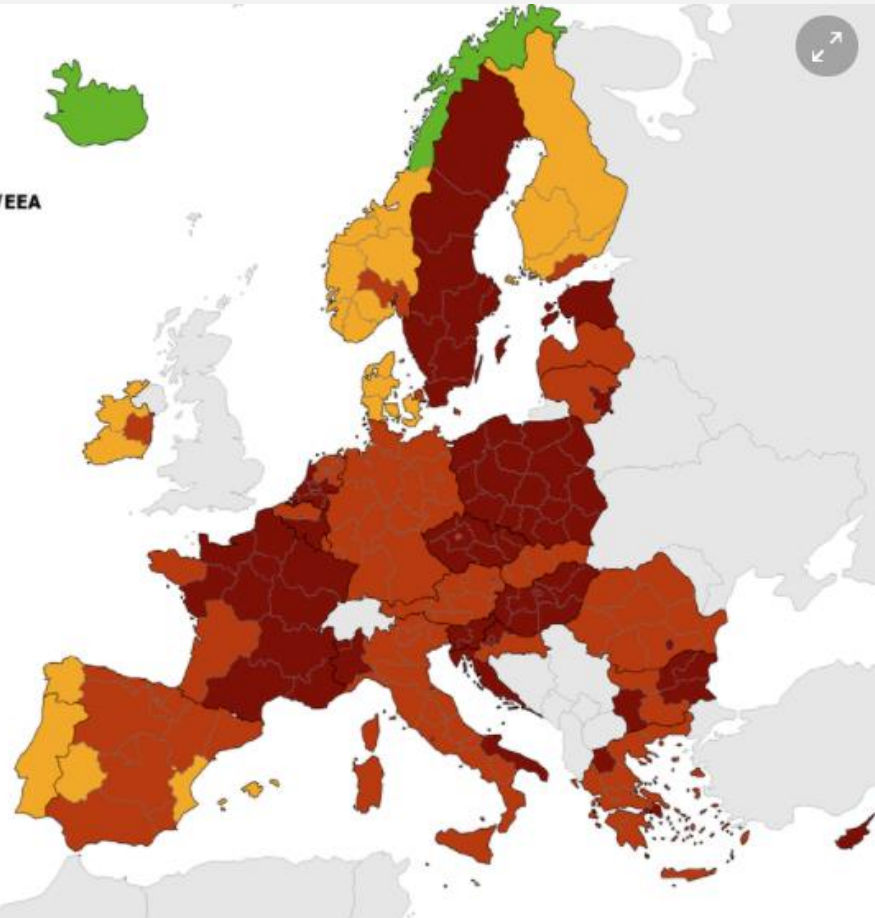
- Testing rate < 300 per 100 000 population
- No data available
- Not included

Regions not visible in the main map extent

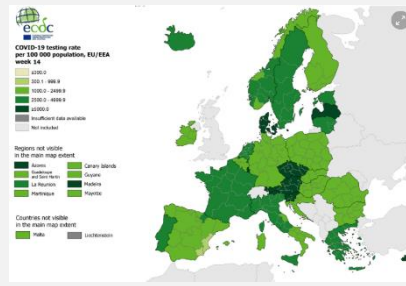
- Azores
- Canary Islands
- Guadeloupe and Saint Martin
- Guyane
- La Reunion
- Medeira
- Martinique
- Mayotte

Countries not visible in the main map extent

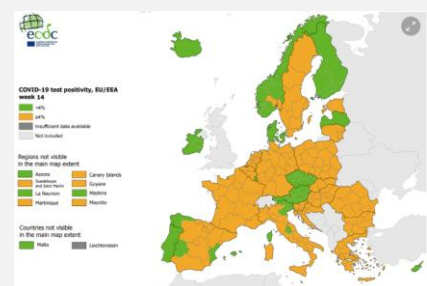
- Malta
- Liechtenstein



14-day case notification rate per 100 000 inhabitants



Testing rates per 100 000 inhabitants



Positivity rates

ECDC COVID-19 surveillance report Week 14, as of 16 April 2021

Weekly surveillance summary

Overall situation

By the end of week 14 (week ending Sunday 11 April 2021), 12 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 three countries, eight 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.

Trends in reported cases and testing

- By the end of week 14, the 14-day case notification rate for the EU/EEA, based on data collected by ECDC from official national sources in 30 countries, was 464 (country range: 23-861) per 100 000 population. The rate has been decreasing for one week.
- Among the 29 countries with high case notification rates (at least 60 per 100 000 population), increases were observed in nine countries (Croatia, Cyprus, Denmark, Greece, Liechtenstein, Lithuania, Portugal, Spain and Sweden). Stable or decreasing trends in case rates of 1–5 weeks' duration were observed in 20 countries (Austria, Belgium, Bulgaria, Czechia, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Luxembourg, Malta, the Netherlands, Norway, Poland, Romania, Slovakia and Slovenia).
- Based on data reported to The European Surveillance System (TESSy) from 23 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 17 countries (Austria, Belgium, Cyprus, Czechia, Estonia, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Romania, Slovenia and Spain).
- Notification rates are dependent on several factors, one of which is the testing rate. Weekly testing rates for week 14, available for 29 countries, varied from 1 012 to 45 255 tests per 100 000 population. Denmark had the highest testing rate for week 14, followed by Cyprus, Austria, Czechia and Luxembourg.
- Among 19 countries in which weekly test positivity was high (at least 3%), four countries (Belgium, France, the Netherlands and Spain) had observed an increase in test positivity compared with the previous week. Test positivity remained stable or had decreased in 15 countries (Bulgaria, Croatia, Estonia, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia and Sweden).

Hospitalisation and ICU

- Pooled data from 24 countries for week 14 show that there were 14.2 patients per 100 000 population in hospital due to COVID-19. According to weekly hospital admissions data pooled from 19 countries, new admissions were 10.8 per 100 000 population.
- Pooled data from 18 countries for week 14 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 13 countries show that there were 3.6 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 76.6 (country range: 0.0-363.1) per million population. The rate has been stable for six weeks.
- Among 24 countries with high 14-day COVID-19 death rates (at least 10 per million), increases were observed in nine countries (Austria, Belgium, Bulgaria, Croatia, Cyprus, Finland, Germany, Poland and Slovakia). Stable or decreasing trends in death rates of 1–3 weeks' duration were observed in 15 countries (Czechia, Estonia, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Romania, Slovenia and Spain).

Variants of concern

- Sequencing capacity varies greatly across the EU/EEA; nine EU/EEA countries (Belgium, Denmark, Estonia, France, Germany, Hungary, Iceland, Luxembourg and Norway) met the recommended level of 10% or 500 sequences of SARS-CoV-2-positive cases sequenced and reported to the [GISAID EpiCoV database](#) by 13 April 2021 or to TESSy by 11 April 2021 (data referring to the period from 22 March to 4 April 2021). During the same period, 11 countries sequenced and reported between 60 and 499 samples, while 10 countries sequenced and reported <60 samples or did not report data.
- Among the nine countries with the recommended level of 10% or 500 sequences reported per week in the period from 22 March to 4 April 2021, the median (range) of the variant in all samples sequenced in the period was 77.0% (0.1–100.0%) for B.1.1.7, 1.2% (0.0–18.7%) for B.1.351 and 0.0% (0.0–0.5%) for P.1

Notes

- ECDC produces two weekly COVID-19 surveillance outputs (the [COVID-19 country overview](#) and the [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 for download in open data formats on [ECDC's website](#).
- The joint [ECDC-WHO Europe COVID-19 surveillance bulletin](#) is published every Friday, comprising an overview report of data reported to TESSy by countries in the WHO European region and an [interactive web application](#) presenting country-level data.
- 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 15 April 2021

Key figures on the vaccine rollout in the EU/EEA as of week 14, 2021 (11 April 2021)

Total doses distributed and administered

Total number of vaccine doses distributed by manufacturers to EU/EEA countries: 117 217 547 (29 countries reporting)

Median number of vaccine doses distributed by manufacturers to EU/EEA countries per hundred inhabitants : 31.8 (range: 15–59.3) (29 countries reporting)

Total number of vaccine doses administered: 98 991 972 (30 countries reporting)

Cumulative vaccine uptake in adults

Cumulative uptake of first vaccine dose among adults aged 18 years and above: median of 19% (range: 7.8–35.9%) (30 countries reporting)

Cumulative uptake of full vaccination among adults aged 18 years and above: median of 7.4% (range: 1.6–15.5%) (30 countries reporting)

Cumulative vaccine uptake in target groups

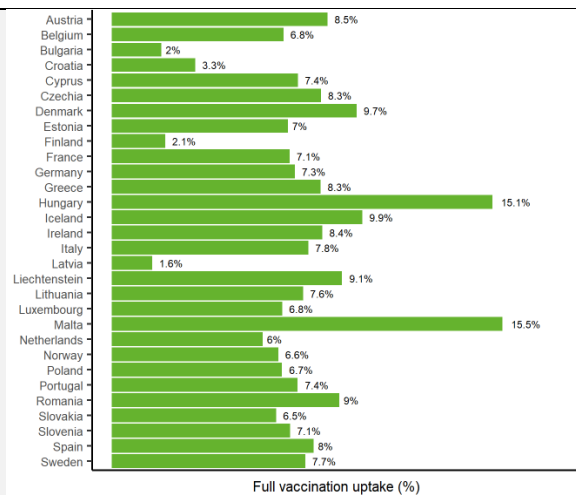
Cumulative uptake of the first vaccine dose among persons aged 80 years and above: median of 70.7% (range: 7.2–99.8%) (24 countries reporting)

Cumulative uptake of full vaccination among persons aged 80 years and above: median of 47.8% (range: 0.9–97%) (24 countries reporting)

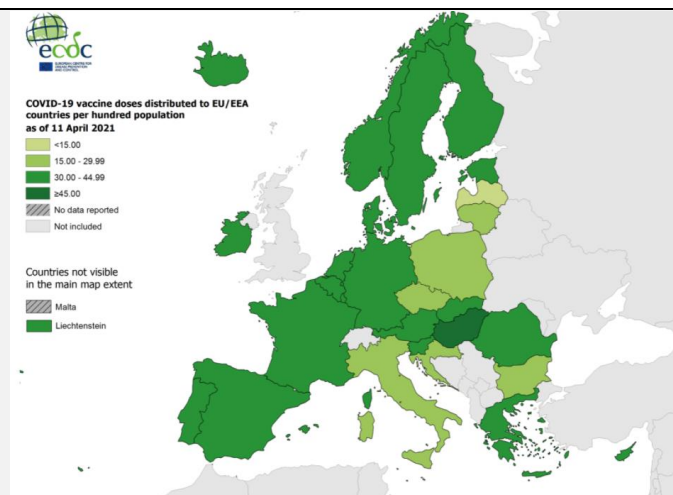
Cumulative uptake of the first vaccine dose among healthcare workers: median of 65.6% (range: 19.3–100%) (15 countries reporting)

Cumulative uptake of full vaccination among healthcare workers: median of 50.3% (range: 14.8–100%) (15 countries reporting)

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



Full vaccination uptake among adults in



Vaccine doses distributed per hundred inhabitants

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

Country Reports:

FRA: The number of COVID-19 patients in intensive care units in France has fallen slightly. According to the Ministry of Health, 5877 people are receiving intensive medical care nationwide. That's 37 fewer than the day before. The total number of COVID-19 patients fell by 143 to 30,329.

DEU: The nationwide rules to curb the pandemic from a seven-day incidence of 100 should be less stringent than planned. As MPs from the Union and SPD have announced, there will be exit restrictions between 10 p.m. and 5 a.m., and jogging and walking will be allowed until midnight. In the retail trade, the collection of ordered goods (Click & Collect) should continue to be possible even with high infection rates. For schools, distance teaching would be mandatory from an incidence of 165. For children up to 14 years of age, sport should continue to be possible in groups. Employers must provide two Corona tests per week. All arrangements are limited to 30 June.

Children and adolescents in Germany are significantly more likely to attend emergency rooms of child and adolescent psychiatry (KJP) than before the lockdown. Severe depression, anxiety disorders, acute suicidal hazards and other illnesses have increased, especially from the fourth quarter of 2020.

ITA: Due to improved Corona numbers, only three regions are designated as "Red Zones". Puglia, Sardinia and the Aosta Valley will continue to have to maintain strict virus bans. The southern Italian Campania with the port city of Naples, on the other hand, moved to the middle risk zone ("orange"). From 26 April, opening steps such as the start of outdoor dining in certain regions will be targeted. A step-by-step plan is foreseen, with relaxations from April to July. Meanwhile, the continuation of the nocturnal curfews continues to be disputed. They are currently valid from 10 p.m. to 5 a.m.

GBR: With 10 extra deaths in 24 hours, COVID mortality in the UK was at its lowest level since September. Yesterday, the authorities reported 35 additional deaths. The number of new infections fell to 1882 from 2206 the day before. With months of lockdown and a broad vaccination program, Britain, long one of the hardest-hit countries in Europe, managed to stem the spread of the virus.

HUN: Despite a high number of new corona infections (363 new infections per 100,000 inhabitants within 14 days), kindergartens and primary schools will reopen in Hungary from tomorrow. However, parents are free to decide whether to send their children to care or lessons.

TUR: On Monday, the highest daily death toll from the coronavirus was reported since the pandemic began. The Ministry of Health confirmed 341 deaths within 24 hours. In addition, 55,802 new cases of infection were reported, bringing the total to 4.3 million.

Subject in Focus

Risk Factors for Severe Disease and Mortality from COVID-19

Introduction

There is a lot of interest in the risk factors for severe disease and mortality from COVID-19. With increasing numbers of cases of COVID-19 globally, the ability to predict severe disease and/or mortality will become better and preventing adverse outcomes will improve. This 'subject in focus' explores recent studies that explore this issue and determines whether there are lessons for military populations.

Studies

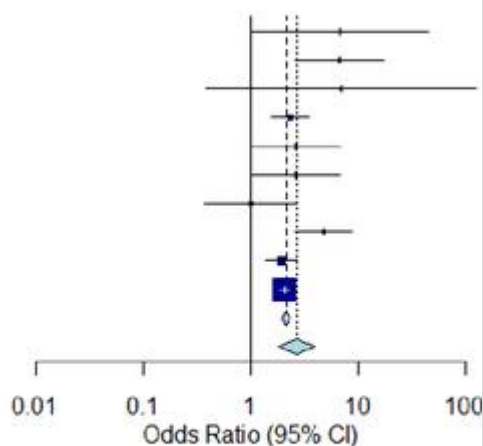
1. A recent systematic review and meta-analysis from the UK set out the evidence on risk factors for different outcomes of COVID-19 infection; incident disease, severe disease and mortality. It sifted 1238 papers with 33 eligible for inclusion of which 20 were from China. The only consistent risk factor across the studies was increasing age.
2. A Chinese meta-analysis which took a similar approach to sifted 3203 papers with 17 eligible for inclusion (16 from China). The authors noted that risk factors for severe illness or death were age, gender and multiple co-morbidities. They noted that smoking was a risk factor for severe disease but that the association did not hold following sensitivity analysis.
3. A review published in PLoS One using data from over 17 million patients across 76 studies established that age >75, male gender, severe obesity, and active cancer were associated with severe COVID-19 (see Fig 2 below). The forest plots in Fig 2 demonstrate the association across the different studies for three variables (age >75, male gender and severe obesity). The diamond on each chart demonstrates that there is a statistically significant association when the different studies are combined.
4. A study from China reviewed published data on mortality from COVID-19 amongst hospitalised patients. They established that increasing age, male gender and current smoking were associated with an increased likelihood of death. They also identified certain biomarkers (Increased white blood cell count, decreased lymphocyte and platelet counts) that were associated with non-survival.
5. A Dutch study reviewed risk factors for four outcomes: incident disease, severe disease, admission to intensive care and death. They sifted 11,550 papers and found 59 studies (50 from China) meeting the inclusion criteria. Age >70 and male gender were associated with increased risk of every outcome. The association remained when studies with possible overlap of patients were removed so patients were not included twice.
6. A study from Atlanta conducted a retrospective analysis of risk factors for a cohort of patients admitted to hospital with COVID-19 and compared them to non-hospitalised individuals with COVID-19. This established that increasing age and number of concurrent conditions increased risk of hospitalisation. It also identified that high levels of Haemoglobin A1c in those with diabetes increased risk of hospitalisation.

Issues

- The majority of studies were from China so there must be caution in applying these results to individuals in other settings.
- The data was predominantly from the first six months of the pandemic in 2020. The number of cases, and resultant hospitalisations, have continued to increase globally so it could be expected that a lot more data from different locations will become available. This might change the results or add further information.
- The quality of the papers was not formally reviewed as part of this SIF. Whilst it is not possible to confirm that all the papers were high quality, there is consistency in the findings which suggests that the key outcomes are accurate.

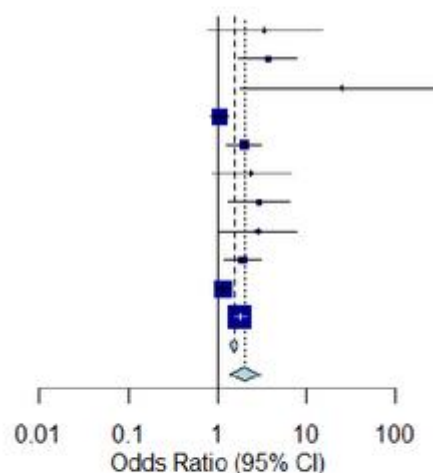
Age >75 years old

Source	OR (95% CI)
Chen2020	6.67 [1.00; 44.49]
Shi2020	6.67 [2.62; 16.98]
Hou2020	6.88 [0.38; 124.56]
Petrilli2020	2.32 [1.57; 3.43]
Kalligeros2020	2.62 [1.00; 6.86]
Palaiodimos2020	2.62 [1.00; 6.86]
Simonnet2020	1.00 [0.37; 2.70]
Huang2020	4.75 [2.62; 8.61]
Lassale2020	1.91 [1.38; 2.64]
Price-Haywood2020	2.06 [1.88; 2.26]
Total (fixed effect)	2.12 [1.95; 2.30]
Total (random effects)	2.65 [1.81; 3.90]
Heterogeneity: $\chi^2_9 = 18.42$ ($P = .03$), $I^2 = 51\%$	



Male

Source	OR (95% CI)
Chen2020	3.38 [0.77; 14.84]
Shi2020	3.68 [1.75; 7.74]
Zhang2020	24.80 [1.80; 341.67]
Petrilli2020	1.06 [0.85; 1.32]
Suleyman2020	2.00 [1.30; 3.08]
Kalligeros2020	2.40 [0.87; 6.62]
Palaiodimos2020	2.96 [1.35; 6.49]
Simonnet2020	2.83 [1.02; 7.85]
Huang2020	1.91 [1.17; 3.12]
Lassale2020	1.15 [0.93; 1.42]
Price-Haywood2020	1.79 [1.54; 2.08]
Total (fixed effect)	1.53 [1.38; 1.69]
Total (random effects)	2.05 [1.39; 3.04]
Heterogeneity: $\chi^2_{10} = 39.67$ ($P < .001$), $I^2 = 75\%$	



Severe Obesity

Source	OR (95% CI)
Petrilli2020	1.71 [1.10; 2.66]
Suleyman2020	2.00 [1.40; 2.86]
Kalligeros2020	5.39 [1.13; 25.71]
Simonnet2020	7.36 [1.63; 33.23]
Total (fixed effect)	2.03 [1.55; 2.65]
Total (random effects)	2.57 [1.31; 5.05]
Heterogeneity: $\chi^2_3 = 4.89$ ($P = .18$), $I^2 = 39\%$	

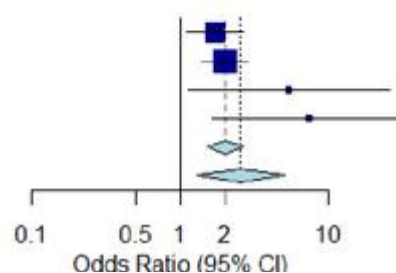


Fig 2. Forest plot for the association of patient characteristics (age, sex, and severe obesity) with severe outcomes from COVID-19 using a random-effects model.

<https://doi.org/10.1371/journal.pone.0247461.g002>

Summary

Evidence suggests that increasing age (>70), male gender and multiple co-morbidities plus, possibly smoking, are risk factors for severe disease or death from COVID-19. Increased age and co-morbidities have also been associated with increased likelihood of hospitalisation.

Implications for Military Populations

The results from these studies provide limited information for military personnel who tend to be younger and healthier than the general population. There is, however, emerging evidence that modifiable risk factors such as smoking increase the risk of severe COVID-19 and it is worth highlighting this as part of any health improvement programme amongst military populations.

Further work is required to assess the risk factors for severe disease and death, or adverse sequelae, from COVID-19 in younger age groups such as military populations. As increasing numbers of cases are confirmed globally it is likely that this information will become available soon.

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[Informing the public health response to COVID-19: a systematic review of risk factors for disease, severity, and mortality \(biomedcentral.com\)](https://www.biomedcentral.com)

[A Systematic Review and Meta-Analysis of Risk Factors Associated with Severity and Death in COVID-19 Patients \(hindawi.com\)](https://www.hindawi.com)

[Population risk factors for severe disease and mortality in COVID-19: A global systematic review and meta-analysis \(plos.org\)](https://www.plos.org)

[Clinical risk factors for mortality of hospitalized patients with COVID-19: systematic review and meta-analysis. - Abstract - Europe PMC](https://www.europepmc.org)

[e044640.full.pdf \(bmj.com\)](https://www.bmj.com)

[Characteristics and Risk Factors of Hospitalized and Nonhospitalized COVID-19 Patients, Atlanta, Georgia, USA, March–April 2020 - Volume 27, Number 4—April 2021 - Emerging Infectious Diseases journal - CDC](https://www.cdc.gov/eid)

Conflict and Health

COVID-19 Crisis in Burundi



In cooperation with Bundeswehr HQ of Military Medicine

BURUNDI

Area: 27,834 km²
Population: 11,865,82
Capital: Gitega (political),
Bujumbura (economic)

Age structure:

0-14 years:	43.83%
15-24 years:	19.76%
25-54 years:	29.18%
55-64 years:	4.17%
65 years and over:	3.06%



CONFLICT:

Burundi as one of the smallest states in Africa (approx. The area of Brandenburg) and one of the poorest states in the world, with approx. 11 million inhabitants is also one of the most densely populated. The average age is 16.9 years and the proportion of people over 65 is only around 2.5 percent. As a landlocked country, it borders on the conflict-ridden east of the Democratic Republic of the Congo, Rwanda and Tanzania. The Burundian people belong to an ethnic group and share culture and history. Despite all this, there are various religious communities (around 62% of Burundians are Catholics, 5% Protestants, 10% Sunni Muslims and 23% followers of African religions) and social groups. The Burundians place themselves in the Houthi (rural population approx. 85 percent) and Tutsi (urban elite approx. 14 percent).

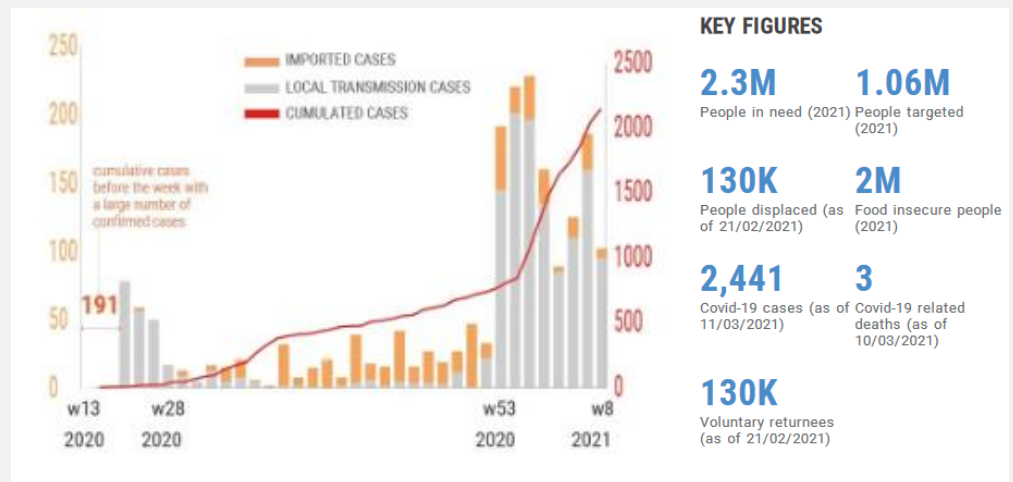
Since Burundi was granted independence in 1962, armed conflicts have flared up again and again. These are based on tensions between political and social groups and have killed around 300,000 people (mainly civilians). The high point of the violence was the mass murders in 1972 and 1993, which were reported as genocide to the United Nations Security Council. Even if these excesses of violence have decreased in the past few decades, there are still existing hurdles to resolve the conflicts and to create an internal peace in Burundi. In particular, extreme poverty in the population, a lack of security and legal structures and constant human rights violations have played a large part in this. The integration of the former conflict parties or rebels into the state apparatus is also an unsolved but essential task and challenge to this day. In April 2015, President Nkurunziza sparked an ongoing political, economic and humanitarian crisis. The announcement for a third term of office, which was not provided for in the constitution at the time, was followed by violent clashes between the government and the opposition. Hundreds have fallen victim to this and hundreds of thousands have fled to neighboring countries or were displaced within the country in this context. The fragmented opposition and the media are severely constrained.

HEALTH:

Burundi, which is always at the bottom of the scale on all humanitarian and conflict rankings, has an almost non-existent health system to fight the diseases common in the region, such as intestinal infections including amebiasis, hepatitis A, typhoid, schistosomiasis, hepatitis B and C, sexually transmitted diseases, HIV / AIDS, rabies and sleeping sickness. Malaria is widespread across the

country and there is an alarmingly high risk of malaria all year round. A total of around 8.3 million cases of the disease are said to have occurred. With a population of more than 11 million in Burundi, this means an extremely high risk of malaria transmission across the country. In May 2019, it reached the threshold of an epidemic that resulted in more deaths than the last Ebola outbreak in neighboring Eastern Congo. The high number of deaths is partly due to the lack of immunity of the population (under 5 year olds) who were displaced from malaria-free (mountain) regions within Burundi. The government has strictly refused to recognize this outbreak as an epidemic. This is breeding ground for a possible renewed humanitarian catastrophe caused by COVID-19, after the presidential elections in mid-May 2020 and before numerous election campaign events with thousands of people. This gives the impression that keeping

your distance is unknown in Burundi or is not valued. Until then, the government had not taken any measures to protect the population other than quarantine for travelers, hygiene recommendations and the suspension of air traffic. It is reported that humanitarian organizations have



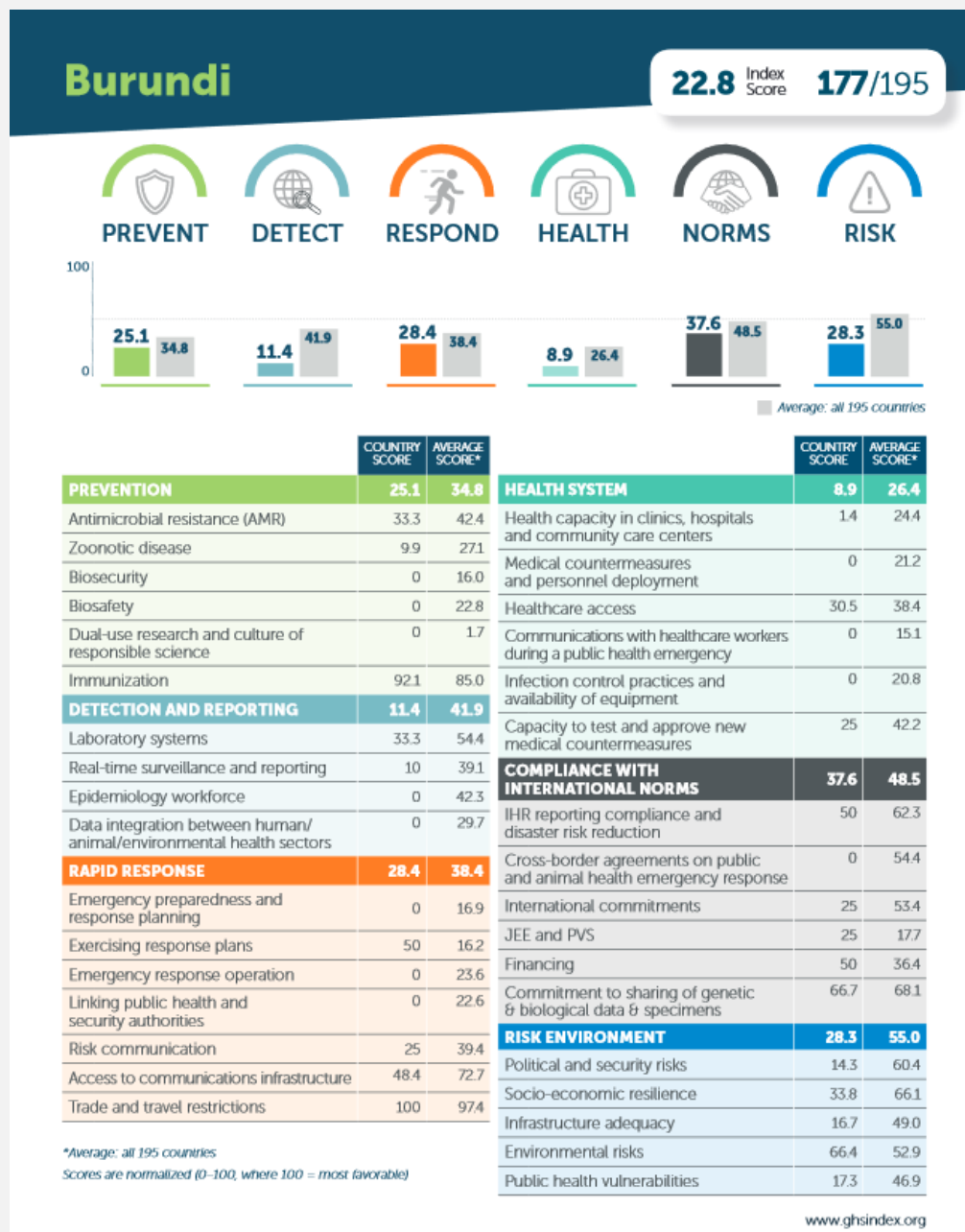
been denied access to quarantined immigrants who are detained in inhumane conditions. To date, Burundi reports very low cases of COVID-19 (3333 confirmed, 6 deaths) based on population. It is reported that local doctors did not believe the reported numbers and local hospitals were literally flooded. However, those who had been admitted could not even be tested because six employees were infected in the national laboratory, the only facility in the country that can carry out tests. The institute was temporarily closed. When the representative of the World Health Organization WHO, Walter Mulombo, expressed doubts about the official statistics, he was declared a "persona non grata" and expelled in mid-May 2020. This expertise and advice was no longer available to Burundi. After the designated successor Ndayishimiye was elected by President Nkurunziza in mid-May 2020, as expected, President Nkurunziza, who was actually still in office until August, died at the beginning of June of a heart failure, according to official information. Nevertheless, speculation arose immediately that the president was sick with Covid-19. His wife had only officially reported a heart failure to the Aga Khan Hospital a few days earlier.

Nevertheless, speculation arose immediately that the president was sick with Covid-19. His wife had only been taken to the Aga Khan Hospital in Nairobi a few days earlier because she had contracted the coronavirus. The serious statement made by the president's spokesman in April 2020 that Burundi was an exception in the international community, protected and chosen by God, was apparently no longer true. On June 30th, 2020, Burundi's new president declares at the inauguration of the new government (including members who have been subject to EU and US sanctions) that COVID-19 is now the "greatest enemy of Burundi". He calls for a comprehensive commitment to the fight against the pandemic and compliance with preventive measures. He points out the free testing and treatment, at the same time he warns against non-compliance if symptoms occur. He promises to open more test centers at the only one so far. This complete turnaround by the government on pandemic control is reported to be related to a \$ 5 million World Bank support to fight the pandemic. Burundi started a three-month test campaign on July 6 and, according to the Minister of Health, carried out 25,221 tests (as of September 23, 2020). This was followed by another 30-day campaign in January 2021. The results of these test campaigns can also be clearly seen in the increase in reported cases.

CONCLUSION:

The months of ignoring and denying COVID-19 at the beginning of the pandemic by the government, as feared, did not prevent the further entry of the pandemic to Burundi. For example, COVID-19 in Burundi has probably spread strongly due to the socio-economic and political circumstances. It remains to be seen how the U-turn in government will actually affect the country and the population in fighting the pandemic. Even if the WHO ROA has re-classified Burundi as a country with a "community transmission

of moderate incidence”, the number of unreported cases is probably very high. The key to trying to successfully combat the pandemic in Burundi will certainly be the seriousness of the government in dealing with it and the choice or availability of the means to implement it.



Source:

- <https://reports.unocha.org/en/country/burundi>
- <https://www.aa.com.tr/en/africa/coronavirus-outbreak-in-burundi-under-control-1982571>
- <https://www.usip.org/sites/default/files/file/resources/collections/commissions/Burundi-Report.pdf>
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- <https://www.humanitarianresponse.info/en/operations/burundi/infographic/burundi-aper%C3%A7u-de-la-situation-humanitaire-septembre-2020-en>
- <https://www.timeslive.co.za/news/africa/2020-04-28-burundi-elections-going-ahead-despite-covid-19-fears/>
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- <https://www.eurasiareview.com/29062020-post-nkurunziza-burundi-the-rise-of-the-generals-analysis/>
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MiMed CoE VTC COVID-19 response

Topics former VTCs

The NATO Centre of Excellence for Military Medicine is providing expertise and resources to support the response to the pandemic. This includes a regular VTC focusing on different COVID-related topics. The purpose of the VTC is to act as a forum for exchanging experiences, sharing learning and understanding the different responses to the pandemic from partner nations. We are always looking for topics that would be of interest and experts that are able to speak to each topic. Each VTC provides an opportunity for short briefings following by facilitated questions and discussion.

Topics of former VTCs:

- 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.
- Testing strategies
- Aeromedical evacuation
- De-escalation strategy and measures
- Collateral damage of COVID-19 emphasizing Mental Health Aspects and other non COVID related diseases
- Immunity map, national strategies to measure and evaluate the immunity level"
- Mental Health
- Treatment of mild symptomatic cases of COVID-19
- Transition home office back to the office
- COVID-19 Second Wave prediction and preparedness based on facts/experiences, modelling and simulation
- Perspectives of the current COVID-19 vaccine development
- National overview on current COVID-19 situation
- Long term effects of COVID-19 and the impact on force capability
- Overview on current COVID-19 situation in Missions
- Civil – military cooperation in view of COVID-19
- Immunity development versus reinfections of COVID-19
- The current status of SARS-CoV-2 vaccine development
- Resilience strategies from the private sector
- Vaccination: News and Facts
- Vaccination and Variants in Concern: News and Facts
- Vaccinated Personnel – National Regulations for Deployments

Vaccinated Personnel – Logistic Challenges of the COVID-19 Vaccine Distribution

We had very comprehensive national briefings from the USA, GBR and Italy letting us know about the logistic challenges they are facing in their countries, the strategies of their government and also how military is involved in the national logistic chains for vaccine distribution and how military vaccination campaigns are being handled.

Militaries use different ways to move vaccines and to deliver doses to soldiers overseas.

All the informative national presentations were topped off with a short briefing from Zipline a private US company founded in 2014 and building up the world's largest autonomous logistics network. Enabled by the fastest and most experienced drone medical delivery service, Zipline delivers critical and lifesaving products precisely where and when they are needed, safely and reliably.

To summarize this week's VTC on Logistic challenges of the COVID-19 Distribution: There are significant challenges posed by the different vaccines and maintaining a cold chain to ensure that they reach the end user intact. Each of the countries described methods to achieve this goal using innovation and close communication with the medical community. The innovation theme was continued with the Zipline presentation on autonomous drone technology to deliver medication and vaccines in resource poor environments.

The next VTC will be held on 21 April, with the topic "**How has COVID-19 driven medical innovation?**"

Logistic Challenges of the COVID-19 Vaccine Distribution"

Recommendations

Recommendations for international business travellers

As of 19th October 2020

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.

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.

[WHO Public health considerations while resuming international travel.](#)

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.

In the case of non-deferrable trips, please note the following

- Many airlines have suspended inbound and outbound flights to affected countries. Contact the relevant airline for up-to-date information on flight schedules.
- Check your national foreign office advices for regulations of the countries you're traveling or regulations concerning your country.
- 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](#).

Most countries implemented strikt rules of contact reduction:

- Everyone is urged to reduce contacts with other people outside the members of their own household to an absolutely necessary minimum.
- In public, a minimum distance of 1.5 m must be maintained wherever possible.
- 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).
- Follow the instructions of the local authorities.

Risk of infection when travelling by plane:

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.

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:

- 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;
- 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;
- Refrain from touching mouth and nose; See also: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>
- 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](#).

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

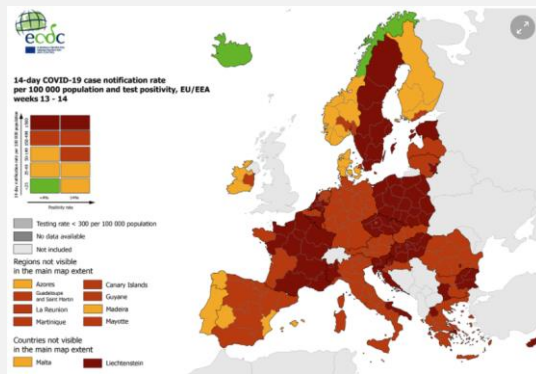
- **the notification rate** (the total number of newly notified COVID-19 cases per 100 000 population in *the last 14 days* at regional level)
- **the test positivity rate** (the percentage of positive tests among all tests for COVID-19 infection carried out during the last week)
- **the testing rate**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

2. A common map

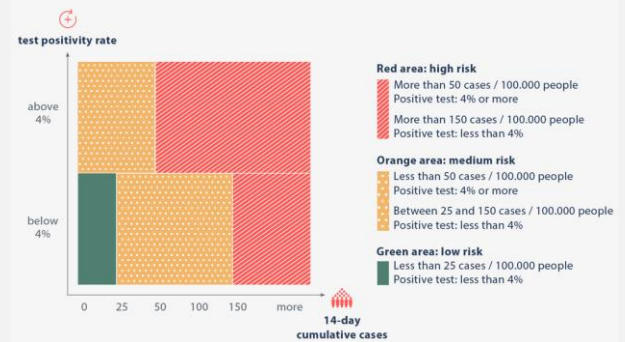
The ECDC will publish a map of EU Member States, broken down by regions, which will show the risk levels across the regions in Europe using a traffic light system. See also "[Situation in Europe](#)".

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.



Common colour codes: mapping of risk areas



3. A common approach for travellers

Common framework for COVID-19 travel measures

Green areas

No restriction of free movement of persons should be applied

Orange and red areas

Measures should be proportionate and respect differences in the epidemiological situation of orange and red areas

In principle, entry should not be refused to travellers from orange/red areas but requirements could be applied

Possible requirements for travellers coming from orange/red areas: quarantine/ self-isolation, COVID-19 testing prior to/ after arrival

Measures should take into account the epidemiological situation in their own territory

Inform other affected EU countries 48 hours before applying measures

Travellers could be asked to submit passenger locator forms

Exceptions: no quarantine requirement for travellers with essential function or need while performing that function

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.

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

Risk Assessment

<p>Global</p>	<ul style="list-style-type: none"> • Because of global spread and the human-to-human transmission the high risk of further transmission persists. • Travellers are at risk of getting infected worldwide. Unnecessary travel should currently be avoided. • Individual risk is dependent on exposure. • National regulations regarding travel restrictions, flight operations and screening for specific countries are here and here. • IATA has updated their travel documents with new travel restrictions. You will find the documents here. • Public health and healthcare systems are highly vulnerability as they already overloaded in some places 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. • Asymptomatic persons as well as those who are infected but not unwell are a source of the virus. Therefore, no disease-free areas exist globally.
<p>Europe</p> <p>As of 23rd of October 2020</p>	<p>ECDC assessment for EU/EEA, UK as of 23 October 2020: Under the current classification system, based on epidemiological indicators, the epidemiological situation in countries is classified as <i>stable</i>, <i>of concern</i> or of <i>serious concern</i>. 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 $\geq 3\%$ as well as the high notification rates in the older age groups and/or high mortality rates.</p> <p>Countries have implemented various non-pharmaceutical interventions, but these have not been sufficiently effective in controlling transmission due to several factors:</p> <ul style="list-style-type: none"> • adherence to the measures was sub-optimal; • the measures were not implemented quickly enough; • or the measures were insufficient to reduce exposure. <p>As a result, the epidemiological situation is now rapidly deteriorating in most countries.</p> <p>There are currently only six countries in the region that are classified as experiencing a <i>stable epidemiological situation</i>.</p> <ul style="list-style-type: none"> • In countries where the epidemiological situation is stable: • the probability of infection for the population is generally low but the impact of infection still varies depending on the individuals affected; • the risk for the general population in these countries is low; • for vulnerable individuals, including the elderly and people with underlying medical conditions, the risk is moderate. <p>Nevertheless, in these six countries, there is still ongoing transmission and the situation must be closely monitored.</p> <p>Based on the latest available data to ECDC, there are currently no countries categorised as having an epidemiological situation ‘<i>of concern</i>’.</p> <p>In countries where the epidemiological situation is of serious concern:</p> <ul style="list-style-type: none"> • there is a high risk to the general population, • and for vulnerable individuals the COVID-19 epidemiological situation represents a very high risk. <p>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.</p>
<p>As of 15th of February 2021</p>	<p>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 published on 15th February 2021</p>

Risks associated with new variants of current concern:

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:

1. the increased transmissibility,
2. recent evidence of increased severity and
3. the potential for the existing licensed COVID-19 vaccines to be partially or significantly less effective against a VOC,
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.

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 to consider guidance on the avoidance of non-essential travel and social activities.

Source: <https://www.ecdc.europa.eu/sites/default/files/documents/RRA-covid-19-14th-update-15-feb-2021.pdf>

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References:

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- 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/>

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