



# Short Update 46a COVID-19 Coronavirus Disease 20<sup>th</sup> of November 2020



## GLOBAL



56 897 527

Confirmed cases  
36 555 450  
recovered  
1 360 713 deaths

## USA

(new cases/day 188 371)



11 663 237

confirmed cases  
4 367 542 recovered  
251 433 deaths

## India

(new cases/day 45 576)



9 004 365

confirmed cases  
8 428 409 recovered  
132 162 deaths

## Brazil

(new cases/day 34 091)



5 981 767

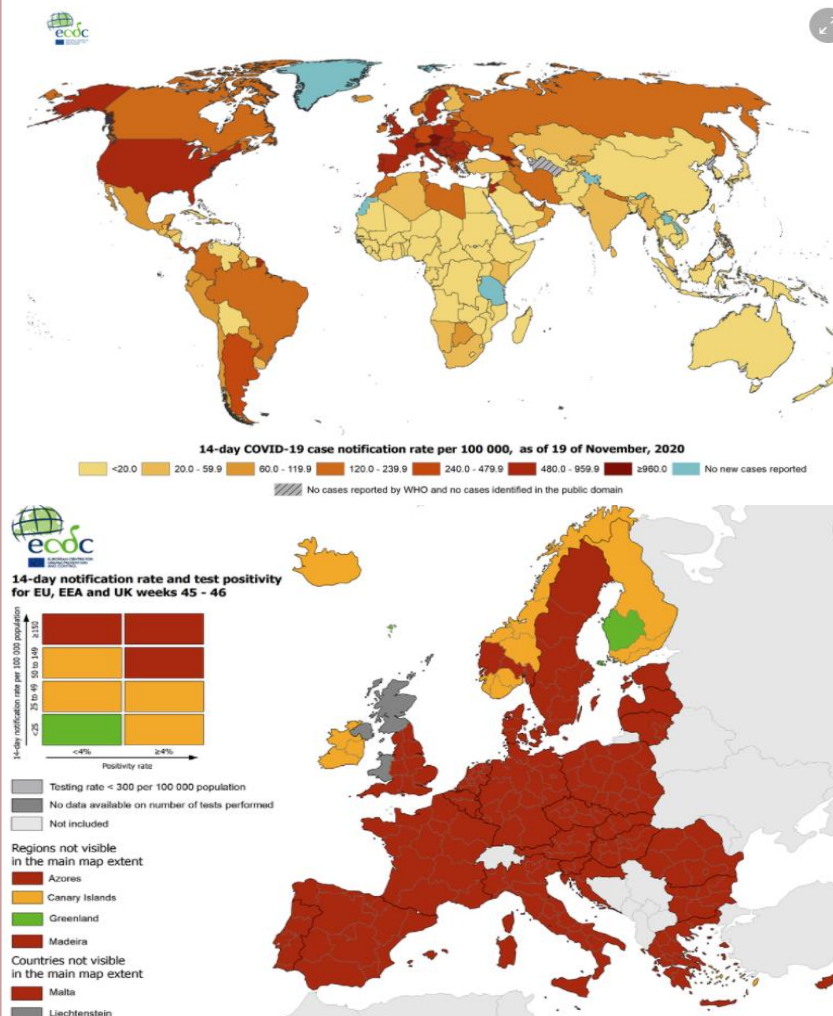
confirmed cases  
5 406 066 recovered  
168 061 deaths

### News:

- **FRA** is the first country in Europe with more than 2 million cases of COVID-19.
- **WHO** has published [Immunization as an essential health service](#): guiding principles for immunization activities during the COVID-19 pandemic and other times of severe disruption, which provides support to countries in their decision-making regarding provision or resumption of immunization services during events such as COVID-19, natural disasters or humanitarian emergencies.
- **WHO** has published the [Emergency Global Supply Chain System \(COVID-19\) catalogue](#) which lists all medical devices, including personal protective equipment, medical equipment, medical consumables, single use devices, and laboratory and test-related devices that may be requested through the COVID-19 Supply Portal.
- **WHO** has published the [technical specifications of personal protective equipment](#) for COVID-19, which provides guidance on the quality, performance characteristics and related standards of personal protective equipment to be used in the context of COVID-19.
- **ECDC**: Published a [rapid risk assessment](#) of "Increase in fatal cases of COVID-19 among long-term care facility residents in the EU/EEA and the UK".
- **ECDC**: Published a [technical report](#) of "Options for the use of rapid antigen tests for COVID-19 in the EU/EEA and the UK".
- **WHO's** health emergencies online learning platform: [OpenWHO.org](https://openwho.org).
- Find Articles and other materials about COVID-19 on **our** website [here](#).
- Please use **our** online observation form to report your lessons learned observations as soon as possible [here](#).

### Topics:

- **Global situation**
- **Subject in Focus:** Interpreting Diagnostic Tests for SARS-CoV-2
- **In the press**



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## EUROPE



15 414 846  
confirmed cases

5 751 450 recovered  
355 048 deaths

## FRANCE

(new cases/day 21 150)



2 086 288  
confirmed cases  
147 569 recovered  
47 127 deaths

## Russia

(new cases/day 23 337)



1 998 966  
confirmed cases  
1 514 945 recovered  
34 525 deaths

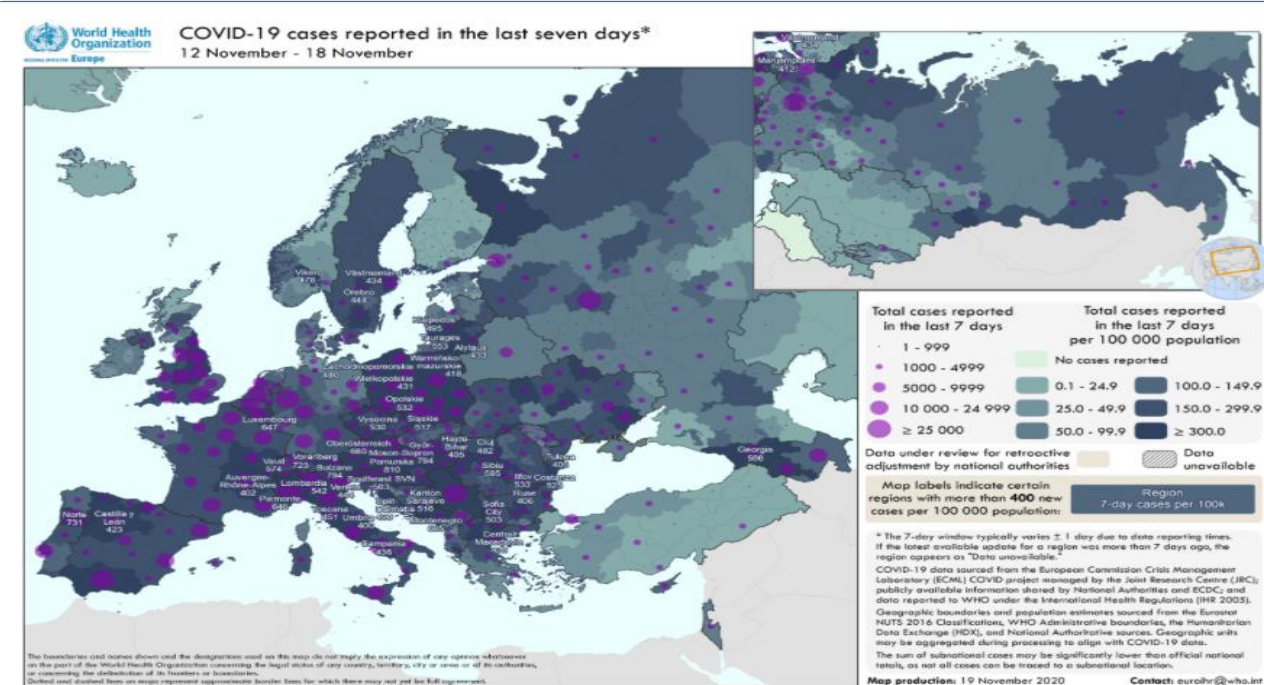
## SPAIN

(new cases/day 16 233)



1 541 574  
confirmed cases  
150 376 recovered  
42 291 deaths

# Global Situation



## Vaccine Development –news:-

BioNTech, believes a delivery of Corona vaccine later this year is possible. The vaccine developed by Biontech and the US pharmaceutical giant Pfizer is one of the hopes in the fight against the pandemic. It is possible that the vaccine will be approved in the US or Europe "or both regions" later this year. The documents will be finalized today and tomorrow and submitted to the FDA. The "updated data with the efficacy data" would probably be submitted to the European authorities next week. Approval could then take place "within a few weeks". The final analysis has now proven **protection in 95%** of the cases.

After the US pharmaceutical company Pfizer and its German partner Biontech and the US manufacturer Moderna, the British-Swedish company AstraZeneca has now also reported promising results for its corona vaccine candidate. According to a final report on clinical phase 2 published in the specialist magazine "The Lancet", the active ingredient developed jointly with the University of Oxford elicited a strong immune response even in older individuals. The vaccination produced a similarly strong immune response in test subjects of all ages, including those over 56, the report said. According to "The Lancet", the result is important, especially because people from 56 years and older belong to the Corona-risk group. Please find the Lancet report [here](#) and other information [here](#).

**CHN:** According to a CHN pharmaceutical company, 1 million people in the country have already been immunized with a vaccine against the novel coronavirus. There were only a few mild reactions and no serious side effects. However, no publicly available study data regarding efficacy and tolerability are currently available on the vaccine.

**WHO:** The World Health Organization WHO worries about a growing number of corona deaths in Europe. In the past two weeks, the number of deaths related to Covid-19 diseases increased by 18 percent. Last week, more than 29,000 deaths were recorded, which means that **every 17 seconds a person in the European region dies with Covid-19**.

**UN:** According to the United Nations, the coronavirus pandemic is massively exacerbating poverty worldwide. Especially the people in the countries of the south are suffering from the global economic downturn. The crisis threatens to plunge up to 130 million people into extreme poverty, according to a Unctad report on the economic impact of the pandemic. For the first time since 1998 poverty was growing again in the world. According to a definition by the World Bank, a person lives in extreme poverty when they have less than 1.90 US dollars (1.61 Euros) a day to spend. For many people in poor countries, losing a job is tantamount to a free economic fall because there is no protection. Unctad assumes that 85% of workers in the approx. 50 poorest countries have no social protection whatsoever.

**IRL:** After the emergency slaughter of millions of minks in Denmark because of a mutated version of the corona virus, Ireland now also wants to cull all minks. There are three mink farms in Ireland with around 120,000 animals.

**ITA:** From Friday, South Tyrol in northern Italy wants to test as many people in the region as possible in a mass test for possible infection. The province of Bozen-South Tyrol, which is popular with tourists, hopes that around two thirds of its citizens will take part in the rapid antigen tests by Sunday. That would be about 350,000 people. Participation is voluntary and free.

**FIN:** Finland extends its entry restrictions until December 13th. The differences between the corona situations in Finland and the rest of Europe are huge. There is therefore no reason to relax the restrictions for the EU and Schengen countries. Entry is still not possible from practically the entire Schengen area. Finland currently still has the lowest number of new infections in Europe. As the comparison values of the EU health authority ECDC showed, there were 54.5 new infections per 100,000 inhabitants in the Nordic EU country in the past 14 days.

**DEN:** The Danish government wants to prematurely lift most of the currently applicable corona restrictions for the North Jutland region, which is characterized by mink breeding. Most of the measures are already being relaxed because new data shows a falling trend in infections from coronavirus variants that occur in mink. The government in Copenhagen had introduced the strict measures out of concern about new coronavirus variants that had appeared within the mink stocks in the country. All fur animals on the infected mink farms have now been culled.

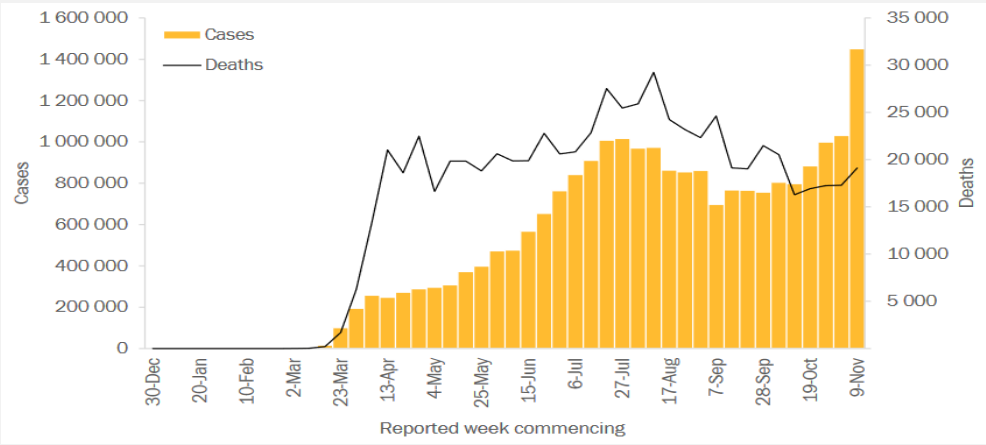
**ESP:** The Spanish Congress voted to extend the state of emergency for six months, up until 9 May 2021. The state of emergency was finally extended with 194 votes in favour, 53 against, and 99 abstentions.

**DEU:** Despite the "lockdown light" that has been in place for 3 weeks, the RKI still reports another high level of new infections; 23,648 cases have been confirmed in the last 24 hours. Particularly worrying is the development that in many cases a large part of the chains of infection can no longer be traced; the RKI speaks of an increasingly diffuse event. The number of older people with an infection continues to rise, which in turn leads to an increase in the number of severe courses and deaths. Around 80% of the intensive care capacities in DEU are currently fully utilized.

# Global Situation

## Epidemiological situation by WHO “Regions of the Americas”, as of 17 Nov

Cases and deaths in the **Region of the Americas** continue to rise, with cases increasing over 40% and deaths over 10% in the past 7 days. The **United States of America** reported the largest number of cases in the Region, with over 1 million cases (3,036 cases per 1 million population) in the past week. In **Canada**, upward trends in both cases and deaths have continued, with over 30,000 new cases (835 new cases per 1 million population) and just under 400 new deaths (10 new deaths per 1 million population) in the past week. Increased activity has also been reported among vulnerable populations and settings (such as elderly adults and Indigenous communities, and in a range of settings including long-term care and assisted living facilities, schools, congregate living settings, industrial work settings and social gatherings). **Mexico** reported 42,465 new cases this past week (328 new cases per 1 million population), a 16% increase compared to the previous week. There have been reports of increased hospitalizations in the northern state of, this region has been placed under the highest Coronavirus alert level, joining the neighbouring region of Chihuahua, which borders the United States of America. Death rates in the country increased by 9% in the past week, with 3,301 new deaths reported.



<https://www.who.int/publications/m/item/weekly-epidemiological-update---17-november-2020>

**USA:** With more than 11 million confirmed cases, the US has the highest number of infections in the world and the spread of the virus shows no sign of slowing down. The current wave is growing at a faster rate than the previous two - although some of that is down to increased levels of testing. During the spring wave, testing was mostly limited to confirming cases in people who were already in hospital, meaning the true scale of that outbreak wasn't fully captured. But the latest data compiled by the [COVID Tracking Project](#) shows the current surge is not just down to increased testing - the number of tests carried out in the US was up by 12.5% week on week, while the number of cases increased by more than 40%. One likely cause is the change of season and colder weather driving people indoors to socialise, where the risk of spread is heightened due to less social distancing and poor ventilation.

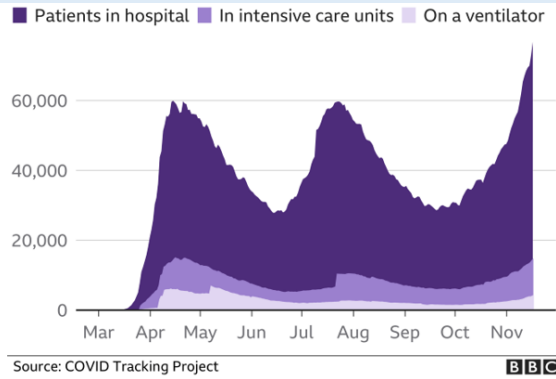
## The strain on hospitals is growing

Because of the change in the level of testing, a better way to compare waves is to look at the number of people being admitted to hospital because of Covid-19.

This data shows that roughly the same number of people across the US were in hospital during the first and second waves of the outbreak. But there are already more people in hospital during the current wave - more than 70,000 at the moment. One encouraging observation is that fewer coronavirus patients are being put on ventilators - for now at least - which shows the progress that has been made with other treatments since the spring outbreak. In a [recent study](#) in New York, researchers found that the probability of death among coronavirus patients was down 18 percentage points from the spring, in part due to new treatments and better knowledge of the virus among medical staff. But these improvements are dependent on the quality of care being received, which is put at risk when hospitals reach capacity and staffing levels are put under pressure.

## This wave is hitting every US region

The current wave of infections is the third one to hit the US this year but the one major difference is that it's affecting every region at the same time. The spring wave was predominantly in the Northeast, while the summer one hit the South and West hardest. This time around, it's the Midwest where infections are rising fastest - but every region is seeing a spike in cases. In March, as New York's healthcare system struggled to cope with a surge of coronavirus cases, Governor Andrew Cuomo issued a plea to doctors and nurses across the country: "Help New York. We are the ones who are hit now. Healthcare professionals were able to answer that call because the outbreak was isolated to the Northeast, but if a similar call is made in the next few weeks it will be harder to answer now that cases are rising in every state. At the moment, the worst outbreaks are in the Midwest, as the map below shows, and officials in some of the worst-hit states have warned that hospitals are already in a challenging situation.

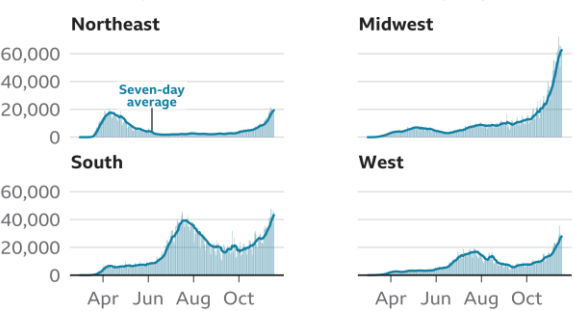


Source: COVID Tracking Project

BBC

## Cases are increasing quickly across the US

Number of daily confirmed coronavirus cases by region

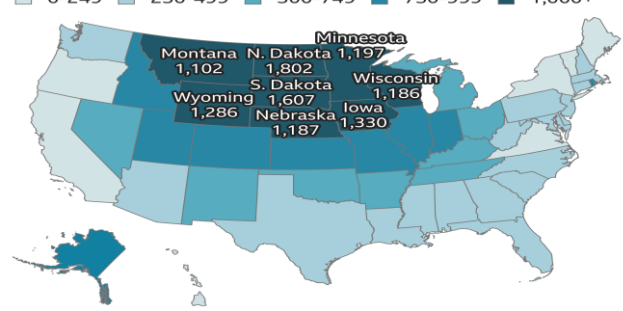


Source: COVID Tracking Project data, using Census Bureau regions

BBC

## Cases highest in Midwestern US states

Average daily cases in the last week per million people



Source: Johns Hopkins University, updated: 18 Nov 10:00 GMT

BBC

Source: <https://www.bbc.com/news/world-us-canada-54966531>

# Subject in Focus:

## Interpreting Diagnostic Tests for SARS-CoV-2

The pandemic of coronavirus disease 2019 (COVID-19) continues to affect much of the world. Knowledge of diagnostic tests for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is still evolving, and a clear understanding of the nature of the tests and interpretation of their findings is important.

### Detection of Viral RNA by RT-PCR

Thus far, the most commonly used and reliable test for diagnosis of COVID-19 has been the RT-PCR test performed using nasopharyngeal swabs or other upper respiratory tract specimens, including throat swab or, more recently, saliva. In most individuals with symptomatic COVID-19 infection, viral RNA in the nasopharyngeal swab as measured by the cycle threshold (Ct) becomes detectable as early as day 1 of symptoms and peaks within the first week of symptom onset. The Ct is the number of replication cycles required to produce a fluorescent signal, with lower Ct values representing higher viral RNA loads. This positivity starts to decline by week 3 and subsequently becomes undetectable.

In some cases, viral RNA has been detected by RT-PCR even beyond week 6 following the first positive test. A few cases have also been reported positive after 2 consecutive negative PCR tests performed 24 hours apart. It is unclear if this is a testing error, reinfection, or reactivation. In a study, attempts to isolate the virus in culture were not successful beyond day 8 of illness onset, which correlates with the decline of infectivity beyond the first week. That is in part why the “symptom-based strategy” of the Centers for Disease Control and Prevention (CDC) indicates that health care workers can return to work, if “at least 3 days (72 hours) have passed since recovery defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms (e.g., cough, shortness of breath); and, at least 10 days have passed since symptoms first appeared.”

The timeline of PCR positivity is different in specimens other than nasopharyngeal swab. PCR positivity declines more slowly in sputum and may still be positive after nasopharyngeal swabs are negative. In one study, PCR positivity in stool was observed in 55 of 96 (57%) infected patients and remained positive in stool beyond nasopharyngeal swab by a median of 4 to 11 days, but was unrelated to clinical severity.

In another study of patients with confirmed COVID-19 infection, RT-PCR positivity was highest in bronchoalveolar lavage specimens (93%). False-negative results mainly occurred due to inappropriate timing of sample collection in relation to illness onset and deficiency in sampling technique, especially of nasopharyngeal swabs. Specificity of most of the RT-PCR tests is 100% because the primer design is specific to the genome sequence of SARS-CoV-2. Occasional false-positive results may occur due to technical errors and reagent contamination.

### Detection of Antibodies to SARS-CoV-2

COVID-19 infection can also be detected indirectly by measuring the host immune response to SARS-CoV-2 infection. Serological diagnosis is especially important for patients with mild to moderate illness who may present late, beyond the first 2 weeks of illness onset. Serological diagnosis also is becoming an important tool to understand the extent of COVID-19 in the community and to identify individuals who are immune and potentially “protected” from becoming infected. The most sensitive and earliest serological marker is total antibodies, levels of which begin to increase from the second week of symptom onset.

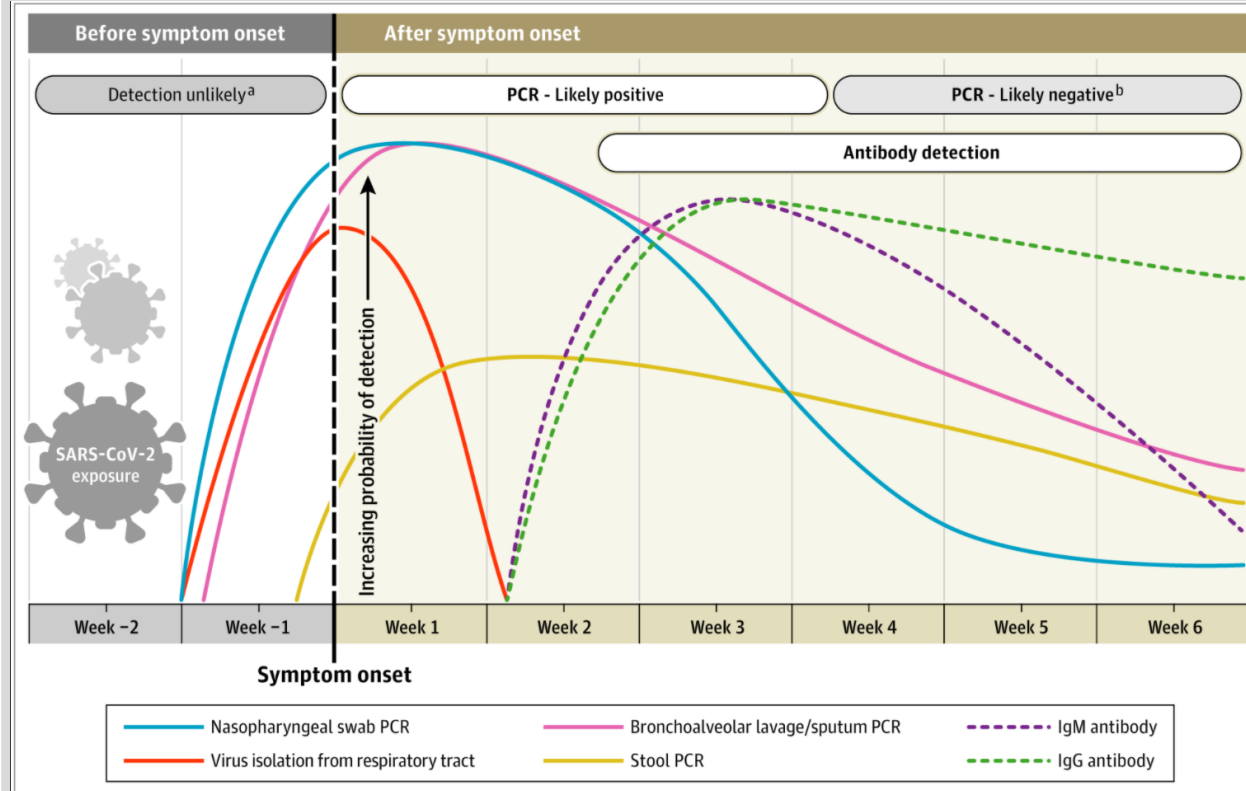
For example, IgM and IgG seroconversion occurred in all patients between the third and fourth week of clinical illness onset. Thereafter IgM begins to decline and reaches lower levels by week 5 and almost disappears by week 7, whereas IgG persists beyond 7 weeks.

ELISA-based IgM and IgG antibody tests have greater than 95% specificity for diagnosis of COVID-19. Testing of paired serum samples with the initial PCR and the second 2 weeks later can further increase diagnostic accuracy.

Rapid point-of-care tests for detection of antibodies have been widely developed and marketed and are of variable quality. Many manufacturers do not reveal the nature of antigens used. These tests are purely qualitative in nature and can only indicate the presence or absence of SARS-CoV-2 antibodies. The presence of neutralizing antibodies can only be confirmed by a plaque reduction neutralization test.

### Conclusions:

Using available evidence, a clinically useful timeline of diagnostic markers for detection of COVID-19 has been devised (Figure). Most of the available data are for adult populations who are not immunocompromised. The time course of PCR positivity and seroconversion may vary in children and other groups, including the large population of asymptomatic individuals who go undiagnosed without active surveillance. Many questions remain, particularly how long potential immunity lasts in individuals, both asymptomatic and symptomatic, who are infected with SARS-CoV-2.



## In the press

This section aims at summarizing trending headlines with regards to COVID-19. The collection does not aim at being comprehensive and we would like to point out that headlines and linked articles are no scientific material and for information purposes only. The headlines and linked articles do not reflect NATO's or NATO MilMed COE FHPB's view. Feedback is welcome!

19<sup>th</sup> November 2020

**BBC**

### **Tocilizumab: Arthritis drug may treat severe Covid**

<https://www.bbc.com/news/health-55002339>

20<sup>th</sup> November 2020

**The Guardian**

### **Scientists race to find 'warm' Covid vaccine to solve issue of cold storage**

<https://www.theguardian.com/global-development/2020/nov/20/scientists-race-to-find-warm-covid-vaccine-to-solve-issue-of-cold-storage>

17<sup>th</sup> November 2020

**Aljazeera**

### **Mouthwash can kill COVID-19 in 30 seconds: Study**

<https://www.aljazeera.com/news/2020/11/17/coronavirus-30-seconds>

15<sup>th</sup> November 2020

**DW**

### **Germany hails couch potatoes as heroes of coronavirus pandemic**

<https://www.dw.com/en/germany-hails-couch-potatoes-as-heroes-of-coronavirus-pandemic/a-55604506>

18<sup>th</sup> November 2020

**Financial Times**

### **Looser Christmas Covid rules will carry cost, warn scientists**

<https://www.ft.com/content/bb3f3de1-9629-4fec-86e2-143b0baed3f7>

20<sup>th</sup> November 2020

**Aljazeera**

### **WHO advises against use of remdesivir for treating COVID-19**

<https://www.aljazeera.com/news/2020/11/20/who-advises-against-use-of-remdesivir-for-treating-covid-19>

19<sup>th</sup> November 2020

**The Guardian**

### **One death from Covid every 17 seconds in Europe, WHO say**

<https://www.theguardian.com/world/2020/nov/19/covid-who-one-death-17-seconds-europe-hans-kluge>

19<sup>th</sup> November 2020

**The Guardian**

### **Danish Covid mink variant 'very likely extinct', but controversial cull continues**

<https://www.theguardian.com/environment/2020/nov/19/danish-covid-mink-variant-very-likely-extinct-but-controversial-cull-continues>

# The new normal!

## THE NEW NORMAL



**Be a role model.** Show others the importance of cleaning hands, covering coughs and sneezes with a bent elbow, maintaining a distance of at least 1 metre from others and cleaning frequently touched objects and surfaces regularly.

Don't just say it,  
**Do it!**

#StaySafe



In some places, as cases of COVID-19 go down, some control measures are being lifted.

**But this doesn't mean we should go back to the 'old normal'.**

**If we don't stay vigilant and protect ourselves and others, coronavirus cases may go up again.**

If we stop following the key protective measures, coronavirus can come rushing back.

**Now, more than ever, it's important that we all follow our national health authority's advice and be part of helping to prevent coronavirus transmission.**

Wherever you are, you still need to protect yourself against COVID-19.

**Even as restrictions are lifted, consider where you are going and stay safe.**



## Avoid the Three C's



Be aware of different levels of risk in different settings.

There are certain places where COVID-19 spreads more easily:



**Crowded places**

with many people nearby



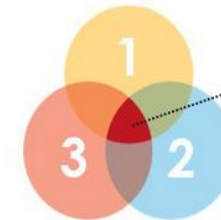
**Close-contact settings**

Especially where people have close-range conversations



**Confined and enclosed spaces**

with poor ventilation



The risk is higher in places where these factors overlap.

**Even as restrictions are lifted, consider where you are going and #StaySafe by avoiding the Three C's.**

## WHAT SHOULD YOU DO?



Avoid crowded places and limit time in enclosed spaces



Maintain at least 1m distance from others



When possible, open windows and doors for ventilation



Keep hands clean and cover coughs and sneezes



Wear a mask if requested or if physical distancing is not possible

**If you are unwell, stay home unless to seek urgent medical care.**



# The perfect wave – why masks are still important



## NEW STUDY ON MOUTH NOSE PROTECTION AND SOCIAL DISTANCING

Unfortunately, in the epicenter of the new hot spots areas often enough people are seen who do not adhere to the still valid protective regulations such as social distancing and the correct wearing of a nose and mouth protection. It could be as simple as that - [new studies](#) show that these two measures make a significant contribution to reducing the probability of transmission.

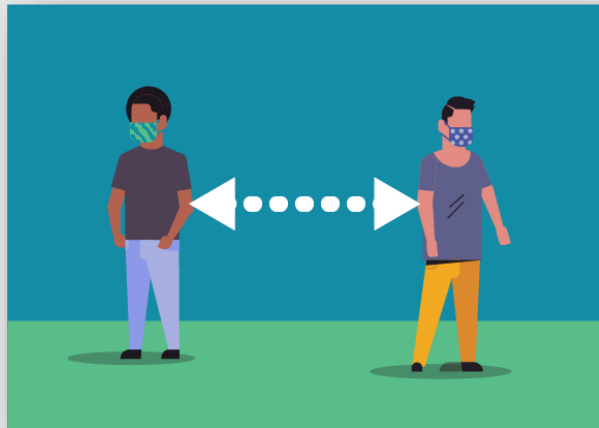
In the case of protective masks with an advertised protective effect in connection with SARS-CoV-2, depending on the intended purpose, a distinction is made between two types:

**Medical face masks (MNS; surgical (surgical) masks);** are primarily used for third-party protection and protect the person against the exposure of potentially infectious droplets of the person wearing the face mask. Corresponding MNS protect the wearer of the mask if the fit is tight, but this is not the primary purpose of MNS. This is e.g. used to prevent droplets from the patient's breathing air from getting into open wounds of a patient. Since, depending on the fit of the medical face mask, the wearer not only breathes in through the filter fleece, but the breathing air is drawn in as a leakage current past the edges of the MNS, medical face masks generally offer the wearer little protection against aerosols containing excitation. However, you can protect the mouth and nose area of the wearer from the direct impact of exhaled droplets from the other person as well as from pathogen transmission through direct contact with the hands.

**Particle-filtering half masks (FFP masks);** are objects of personal protective equipment (PPE) in the context of occupational safety and are intended to protect the wearer of the mask from particles, droplets and aerosols. The design of the particle-filtering half masks is different. There are masks without an exhalation valve and masks with an exhalation valve. Masks without a valve filter both the inhaled air and the exhaled air and therefore offer both internal and external protection, although they are primarily designed for internal protection only. Masks with valves only filter the inhaled air and therefore **offer no external protection!!!**

As a large number of unrecognized people move around in public spaces without symptoms, mouth and nose protection protects other people, thereby reducing the spread of the infection and thus indirectly reducing the risk of becoming infected

	Mouth and nose protection	FFP2/FFP3 mask without valve	FFP2/FFP3 mask with valve
Protects wearer of mask	limited	✓	✓
Protects periphery	✓	✓	✗



Due to the occasion, it should be pointed out again and again, also by executives, that the correct way of wearing the mask is essential to achieve maximum protection. The mask wrong, e.g. for example, wearing it under the nose means accepting a possible infection of others.

FFP2 / 3 masks are still considered deficient equipment and should be kept available for healthcare workers and emergency services.

### When wearing a facemask, don't do the following:

