



Short Update 53a COVID-19 Coronavirus Disease 22nd of January 2021



GLOBAL

97 500 127
Confirmed cases
63 519 900 recovered
2 089 835 deaths

USA

(new cases/day 185 066)
24 528 840
confirmed cases
9 679 109 recovered
408 213 deaths

India

(new cases/day 15 223)
10 625 424
confirmed cases
10 283 702 recovered
153 030 deaths

Brazil

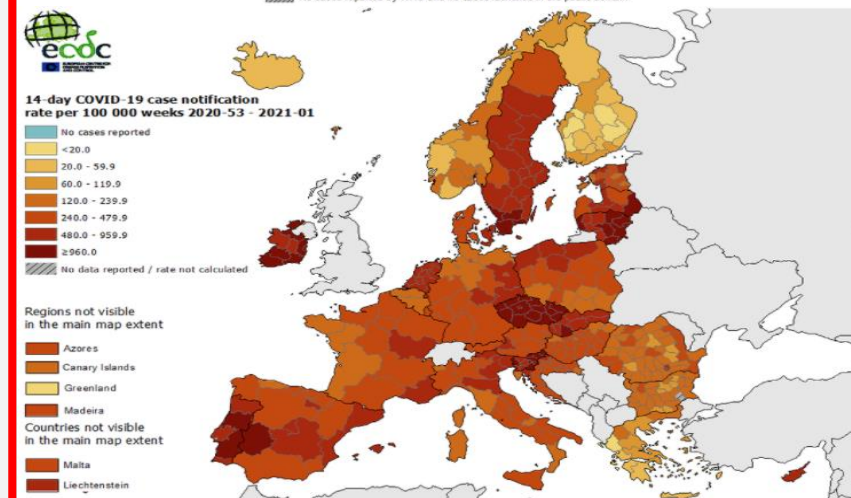
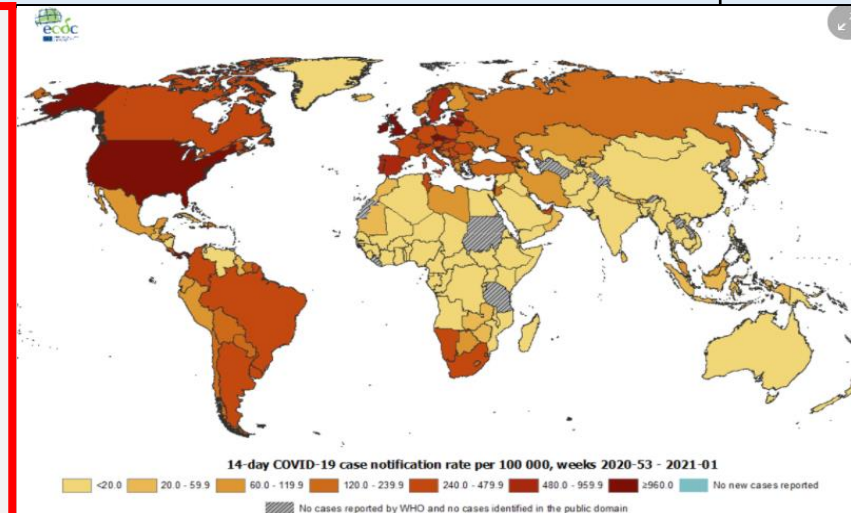
(new cases/day 64 385)
8 697 368
confirmed cases
7 673 092 recovered
214 147 deaths

News:

- USA:** As one of his first acts after his inauguration, President Biden revoked the withdrawal of the USA from the WHO and the Paris climate agreement, initiated by his predecessor Donald Trump.
- SputnikV:** On Wednesday, Russia submitted an application for approval of the Corona-vaccine Sputnik-V to the European Medicines Agency (EMA). An examination is expected next month. From today, Russia wants to have the quality, safety and effectiveness of "Sputnik V" assessed by the World Health Organization.
- EU:** Ahead of the EU summit, the member states agreed on the mutual recognition of rapid tests. The EU Council initiated a written procedure to confirm a corresponding agreement at ambassador level. The process should therefore be completed before the start of the EU video summit on Thursday evening.
- UN-WFP:** Ahead of the EU heads of government meeting to fight the pandemic the organization calls for binding commitments for helping poor countries to cope with Corona. It includes financing vaccines as well as suspending patent rights or supporting health systems. The global crisis can only be defeated together, national solo efforts are therefore pointless.
- COVAX:** The new US government wants to participate in the Covax program after all. President Biden signed a corresponding decree on Thursday.
- EU:** The Commission wants to extend a relaxation of the so-called EU state aid rules for state aid in view of the Corona crisis initially until the end of the year. This means that the 27 EU countries could continue to support affected companies with larger amounts until 31 December 2021, without violating EU competition rules.
- ECDC:** Updated their [risk assessment related to the spread of new SARS-CoV-2 variants](#) of concern in the EU.
- 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:** Filtering Facepiece Respirator (FFR)
- Timeline COVID-19 infection**
- In the press**



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EUROPE

30 876 455
confirmed cases
16 241 250
recovered
677 131 deaths

Russia

(new cases/day 21 544)
3 616 680
confirmed cases
3 021 861 recovered
66 810 deaths

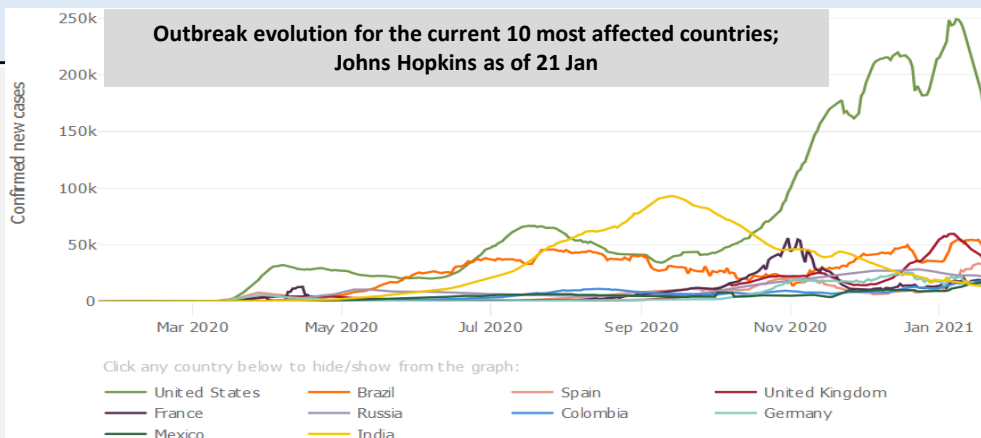
GBR

(new cases/day 37 892)
3 543 646
confirmed cases
xx recovered
94 580 deaths

France

(new cases/day 22 848)
2 987 965
confirmed cases
214 538 recovered
71 998 deaths

Global Situation



Country reports:

LVA: Latvia's government wants to extend the restrictions imposed due to the corona pandemic until January 25 by two more weeks until February 7. Until then, the night curfew, which applies on weekends, should continue to exist in the Baltic EU country.

RUS: Moscow is easing some corona restrictions in view of the lower number of infections. Cinemas, theaters and concert halls are now allowed to use half of all seats. In addition, museums, libraries and centers for children are allowed to reopen if 50 percent of the permitted number of visitors is not exceeded. A night-time ban on entertainment remains in place - as is the home office obligation for a third of employees in companies.

ISR: The government decided on Wednesday to extend the strict corona measures in force by another ten days. Yesterday, for the first time, more than 10,000 new infections were registered in the country within one day.

CHN: In Beijing, two cases with the British virus variant were detected for the first time. According to initial examinations, these are imported infections. They were discovered in the southern district of Daxing, where the new international airport of the Chinese capital is located. The genome analysis indicated that it was the mutation B.1.1.7. The Chinese government then put most sections of the capital Beijing into a partial lockdown again. Two of the most famous hospitals in the country have also been cordoned off. The Fudan University Shanghai Cancer Center and Renji Hospital, as well as some surrounding neighborhoods in Shanghai, have been locked down and outpatient treatments have been suspended, the authorities said.

NLD: Concerned about the rapid spread of the new coronavirus variants, the Netherlands want to tighten their lockdown significantly. According to media reports, the government plans, among other measures, to impose a nightly curfew. The Netherlands has been in lockdown since mid-December. Shops, schools and restaurants are closed until February 9th.

ESP: reports 44,357 new corona cases within 24 hours, the highest value since the beginning of the pandemic. In addition, the incidence measured over 14 days rose to 796 corona cases per 100,000 inhabitants - this is also the highest value ever recorded

FRA: European travelers will also have to show a negative corona test when entering France in the future. This PCR test must not be older than 72 hours. The regulation applies from Sunday at midnight. Exceptions are provided for "essential" trips - this applies above all to cross-border commuters and the movement of goods.

POR: The more contagious British variant of the coronavirus is spreading rapidly. According to the Ministry of Health, around 20 percent of all new cases of infection are due to this variant. The proportion could rise to 60 percent next week. The national health system is already on the verge of collapse. There is a lack of beds for intensive care and nursing staff to take care of corona patients. On Wednesday, both the new infections reported daily and the number of deaths had peaked. Almost 14,700 cases of infection were reported within 24 hours, an increase of 40 percent compared to the previous day. In addition, 219 other deaths related to the virus were registered, also a high. The government has now ordered schools and universities to be closed for at least 15 days.

DNK: Despite a decline in new infections, Denmark is considering extending the lockdown beyond early February. According to the government, the reason is the rapid spread of the more contagious variants of the corona virus that have occurred in Great Britain. There is a risk of an exponential increase in the number of infections. Some measures may have to be tightened on Tuesday.

GBR: Britain recorded a new high in corona deaths on Thursday. Within 24 hours, 1,610 coronavirus-related deaths were reported in the country, according to Public Health England. This is the highest number since the corona pandemic began last spring. At 33,355 cases, the number of new infections was lower than in the past few days - a sign that the lockdown measures are slowly taking effect.

USA: The number of corona deaths in the USA is now higher than that of US soldiers who died in combat or for another reason during World War II. By late Wednesday evening, around 406,000 deaths related to coronavirus infections had been reported since the pandemic began. According to the US Department of Veterans Affairs, a total of 405,399 soldiers in the US armed forces died in World War II.

The designated US Treasury Secretary Janet Yellen wants to take generous measures to combat the consequences of the corona crisis for the US economy. The former US Federal Reserve chief admitted that the rise in national debt in the wake of the pandemic was already a cause for concern. But the government must ensure that people are vaccinated, companies survive the crisis and local infrastructure works.

President Biden signed ten executive orders at the beginning of his term in office to get the corona crisis under control. Among other things, vaccine production and testing options are to be increased, the basis for the reopening of schools and businesses to be laid and the use of masks to be increased immediately. Among other things, Americans will have to wear these when traveling in the future. Biden had already ordered the mandatory use of masks in government buildings on Wednesday.

LKA: After almost ten months of isolation due to the corona pandemic, Sri Lanka is again allowing tourists into the country. To enter the country, visitors have to prove a negative corona test that is no older than 72 hours at the time of arrival at the hotel. Another test must be done after seven days. Around 180 hotels are allowed to offer accommodation.

Thousands of people in Sri Lanka have drunk an alleged miracle drug that is said to protect against corona. But meanwhile a minister had to go to the hospital. The potion was brewed by an influential so-called holy man who claimed he had received the recipe for it from the Hindu goddess of destruction, Kali. The brew contains honey, nutmeg, coriander and other herbs. Herbal remedies are widely used in Sri Lanka.

Global Situation

Global epidemiological situation overview; WHO as of 19 Jan

Globally, 4.7 million new cases were reported in the past week, a decline of 6% from last week. At the same time, the number of new deaths has climbed to a record high at 93 000, a 9% increase from last week. Over 2 million people have now lost their lives to COVID-19.

The **Americas, Europe, and South-East Asia regions** showed declines in new cases, with Europe showing a 15% decline and the Americas and South-East Asia regions showing more moderate declines of 2% and 1% respectively.

On the other hand, the **Eastern Mediterranean, African, and Western Pacific regions** reported increases in new cases, with the Western Pacific showing the largest increase (14%).

All regions reported increases in new deaths; case incidence continues to be one of the primary drivers of mortality – where increases in the number of COVID-19 related hospitalizations and deaths follow large numbers of cases after a short time lag.

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

- **United States of America;** reporting 1 583 237 cases, an 11% decrease,
- **Brazil;** reported over 379 784 new cases, a 21% increase,
- **GBR;** reported over 339 952 cases, an 19% decrease,
- **Russian Federation;** over 166 255 new cases, a 1% increase
- **France;** reported over 125 279 new cases, a 2% increase and

Vaccination news:

Pakistan: China wants to donate half a million doses of vaccine against the corona virus to its neighboring country and economic partner Pakistan. The country had issued emergency approvals for vaccines from Sinopharm and AstraZeneca in the past few days. Healthcare workers, elderly citizens and people with chronic diseases such as diabetes or heart disease should be the first in Pakistan to receive the vaccination for free.

ZAF: The Ministry of Health in Johannesburg announced that the pharmaceutical company AstraZeneca is charging the equivalent of 4.30 euros for its vaccine. That is around two and a half times what is required of Europeans, according to information from a Belgian State Secretary. They pay 1.80 euros per dose. The World Health Organization recently called on governments to stop bilateral negotiations with pharmaceutical companies.

AstraZeneca: Scientists at Oxford University are revising the vaccine developed together with the AstraZeneca group so that it can be used against the new, highly contagious coronavirus mutations. The British newspaper "Telegraph" reports. The scientists are therefore preparing a feasibility study to redesign the vaccine.

ITA: After Pfizer confirmed last week, due to the expansion of production capacities at its Belgian plant, that it would temporarily deliver fewer doses of its vaccine than initially agreed with Europe and Canada, Italy wants to take civil and criminal proceedings against the US company for delays in vaccine deliveries .

USA: The discounter Lidl pays employees in the USA who will get vaccinated against corona a premium of 200 US dollars. The money should help the employees, among other things, to finance the trip to the site of the vaccination or the care of children. Lidl wants to give all employees the opportunity to get vaccinated. Competitor Aldi also wants to support employees in the USA with vaccinations.

TUR: Within seven days, more than a million people were vaccinated with the Chinese CoronaVac vaccine.

ISR: According to the Minister of Health, around 201,000 people were vaccinated on Wednesday alone. This includes 129,000 residents who would have already received the second dose of vaccine. In total, more than 2.2 million people have received the first dose and around 550,000 people have received the second dose since the start of the vaccination.

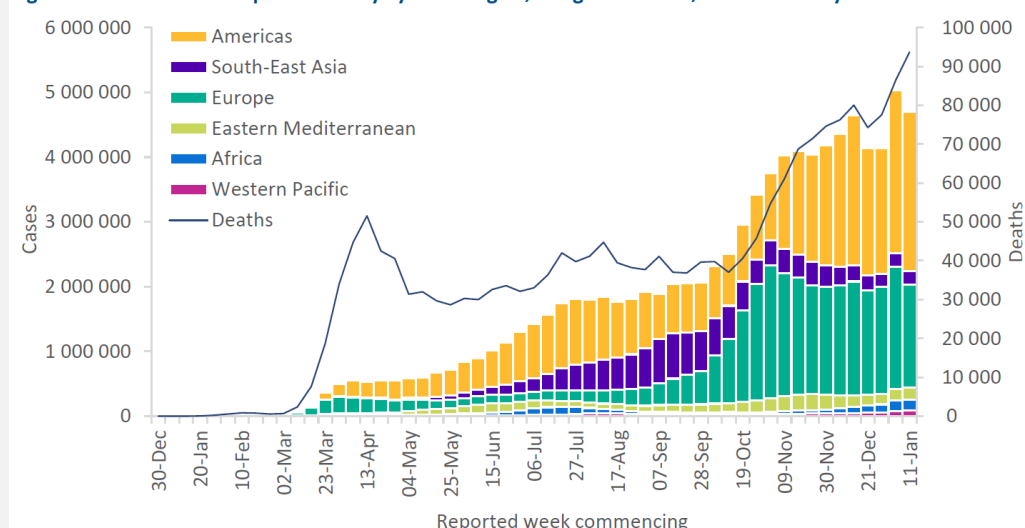
IND: Has started shipping the vaccine produced by AstraZeneca in India to other countries. Initially, two million doses will be sent to Bangladesh, 150,000 to the Kingdom of Bhutan and 100,000 to the Maldives. In the coming weeks, the serum will also be delivered to Bangladesh, Nepal, Myanmar and the Seychelles. In Sri Lanka, Afghanistan and Mauritius, the vaccine is still pending approval.

A fire has broken out in the factory of the world's largest vaccine manufacturer, the Serum Institute in India. The production of corona vaccine is not affected, said a spokesman for the institute.

HUN: The Hungarian Medicines Agency (OGyEI) has granted the Russian corona vaccine Sputnik V emergency approval for use in Hungary. The permit is valid for six months and can then be extended for a further six months.

BRA: Expects delivery of two million doses of the AstraZeneca vaccine. However, experts warn of logistical problems in distribution. In the opinion of health experts, the two million doses should not yet initiate a trend reversal in view of the pandemic situation in the country. Millions more doses are needed to vaccinate high-risk groups against the virus.

Figure 1: COVID-19 cases reported weekly by WHO Region, and global deaths, as of 17 January 2021**



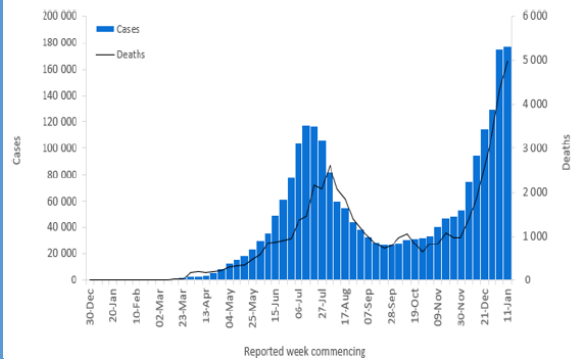
Situation by WHO Region, as of 19th January

Situation by WHO Region

African Region

In the past week, the African Region reported over 177 000 cases and 5000 deaths, a 1% increase in cases and 16% increase in deaths compared to the previous week. Cases in the Region continue to increase since mid-September 2020; however, the increase this week has been slight when compared to steeper increases in recent months. The highest numbers of new cases were reported in South Africa (111 483 new cases; 188 new cases per 100 000 population; a 11% decrease), Nigeria (11 465 new cases; 5.6 new cases per 100 000; a 38% increase) and Zambia (9507 new cases; 51.7 new cases per 100 000; a 78% increase).

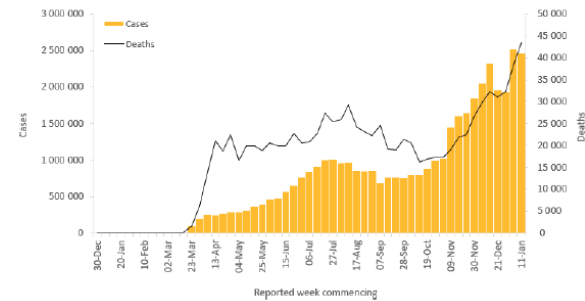
The countries reporting the highest number of new deaths in the past week were South Africa (4027 new deaths; 6.8 new deaths per 100 000; a 10% increase), Zimbabwe (200 new deaths; 1.3 new deaths per 100 000; an 89% increase) and Malawi (80 new deaths; 0.4 new deaths per 100 000; a 186% increase).



Region of the Americas

Over 2.4 million new cases and over 43 000 new deaths were reported in the Region of the Americas this week, a decrease of 2% and an increase of 15% respectively compared to the previous week. For the past four weeks, the highest numbers of new cases continue to be reported from the United States of America (1 583 237 new cases; 478.3 new cases per 100 000 population; a 11% decrease), Brazil (379 784 new cases; 178.7 new cases per 100 000; a 21% increase) and Colombia (114 611 new cases; 225.2 new cases per 100 000; a 14% increase).

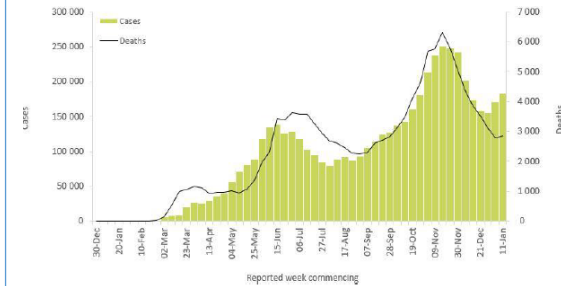
The highest numbers of deaths were reported from the United States of America (23 198 new deaths; 7.0 new deaths per 100 000; a 12% increase), Mexico (6953 new deaths; 5.4 new deaths per 100 000; a 25% increase) and Brazil (6786 new deaths; 3.2 new deaths per 100 000; a 12% increase).



Eastern Mediterranean Region

In the past week, the Eastern Mediterranean Region reported over 183 000 new cases, an increase of 7% compared to last week. The region reported 2846 new deaths, an increase of 2% after a sustained decrease in deaths from 23 November 2020 through the week of 11 January 2021. The three countries reporting the highest numbers of new cases continue to be Iran (43 957 new cases, 52.3 new cases per 100 000 population, a 2% increase), Lebanon (33 605 new cases, 492.3 new cases per 100 000, 15% increase) and United Arab Emirates (22 106 new cases, 223.5 new cases per 100 000, 38 % increase). These three countries accounted for almost half (54%) of the new weekly cases in the Region.

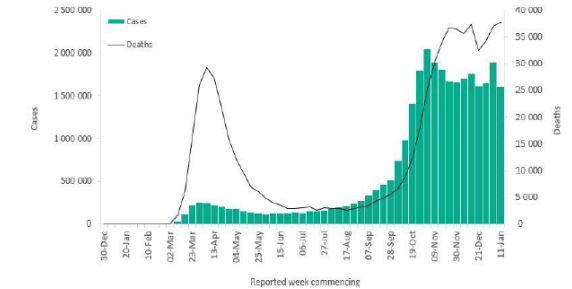
The highest numbers of new deaths were reported in Iran (617 new deaths, 0.7 new death per 100 000 population, 7% decrease) followed by Tunisia (463 new deaths, 3.9 new death per 100 000, 19% increase) and Egypt (385 new deaths, 0.4 new death per 100 000, a 4 % decrease). These countries accounted for almost 52% of deaths reported in the Region.



European Region

The European Region continues to report a substantial number of cases with over 1.6 million new cases and over 37 000 new deaths, a decrease of 15% and an increase of 2% respectively when compared to the previous week. The three countries reporting the highest numbers of new cases were the United Kingdom (339 952 new cases; 500.8 new cases per 100 000, 19% decrease), the Russian Federation (166 255 new cases, 113.9 new cases per 100 000, 1% increase) and France (125 279 new cases, 191.9 new cases per 100 000, 2% increase). These three countries accounted for almost 40% of all cases reported in the region with the United Kingdom accounting for 21% of all new cases.

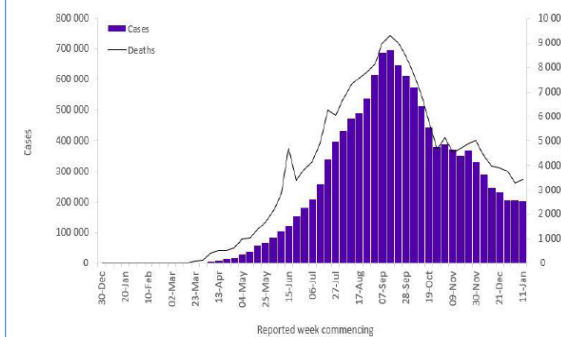
The highest numbers of deaths were reported from the United Kingdom (7722 new deaths; 11.4 new deaths per 100 000, 23% increase), Germany (6076 new deaths; 7.3 new deaths per 100 000, similar to the previous week) and the Russian Federation (3729 new deaths; 2.6 new deaths per 100 000, a 12% increase).



South-East Asia Region

The South-East Asia Region continues to report falling numbers of new cases and deaths, a decline observed since September 2020. Just over 200 000 new cases and over 3400 new deaths were reported in the past week, a 1% decrease and 4% increase respectively, compared to the previous week. The three countries reporting the highest numbers of new cases and new deaths were India (107 701 new cases; 7.8 new cases per 100 000, a 15% decrease), Indonesia (78 256 new cases; 28.6 new cases per 100 000; a 31% increase) and Bangladesh (5681 new cases; 3.4 new cases per 100 000; an 8% decrease).

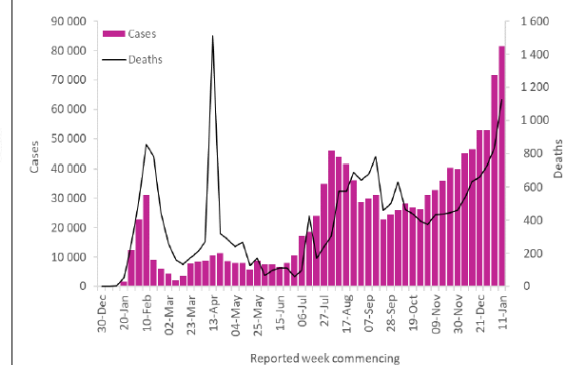
The three countries reporting the highest numbers of new deaths this week were India (1275 new deaths; 0.1 new death per 100 000, a 18% decrease), Indonesia (1820 new deaths; 0.7 new death per 100 000, a 31% decrease) and Bangladesh (127 new deaths; 0.1 new death per 100 000; a 19% decrease).



Western Pacific Region

The Western Pacific Region reported an increase in the number of new cases by 14% (over 81 000) and new deaths by 35% (over 1100) in the past week compared to the previous week. The upward trend in new weekly cases and deaths has continued since October 2020. The three countries reporting the highest numbers of new cases this week were Japan (41 521 new cases; 32.8 new cases per 100 000, a 4% increase), Malaysia (21 536 new cases; 66.5 new cases per 100 000, a 33% increase) and the Philippines (12 894 new cases; 11.8 new cases per 100 000, a 45% increase).

The three countries reporting the highest numbers of new deaths this week were the Philippines (486 new deaths; 0.4 new deaths per 100 000, a 235% increase), Japan (450 new deaths; 0.4 new deaths per 100 000, similar to previous week) and the Republic of Korea (124 new deaths; 0.2 new deaths per 100 000, a 24% decrease).



Source:

<https://www.who.int/publications/m/item/weekly-epidemiological-update---19-january-2021>

<https://www.who.int/publications/m/item/weekly-epidemiological-update---19-january-2021>
<https://www.gov.uk/government/publications/investigation-of-novel-sars-cov-2-variant-variant-of-concern-20201201>
<https://www.who.int/news/item/15-01-2021-emergency-committee-on-covid-19-advises-on-variants-vaccines>
[https://www.who.int/news/item/15-01-2021-statement-on-the-sixth-meeting-of-the-international-health-regulations-\(2005\)-](https://www.who.int/news/item/15-01-2021-statement-on-the-sixth-meeting-of-the-international-health-regulations-(2005)-)
<https://www.who.int/news/item/12-01-2021-global-scientists-double-down-on-sars-cov-2-variants-research-at-who-hosted-forum>
<https://www.who.int/news/item/16-01-2021-scientists-tackle-vaccine-safety-efficacy-and-access-at-global-r-d-forum>
<https://www.nature.com/articles/d41586-021-00065-4>

SARS-CoV-2 variants of concern

VOC 20212/01 (United Kingdom) and 501Y.V2 (South Africa)

Since the last update on 12 January, VOC 20212/01 has been detected in 10 additional countries, territories and areas (hereafter countries). To date, 60 countries across all six WHO regions have reported either imported cases or community transmission of this variant. Several reports of ongoing [studies evaluating transmission and severity](#) have been made available by [Public Health England](#). Concurrently, variant 501Y.V2 has been reported from three additional countries – now totaling 23 countries across four of the six WHO regions.

P.1 (initially identified in Brazil; Manaus, Amazonas State)

which belongs to Nextstrain clade 20B, GISAID clade GR, and Pangolin lineage B.1.1.28. This variant includes mutations N501Y, E484K, K417T, and deletion in ORF1b (del11288-11296) in the spike protein. In addition to the P.1 variant, another variant within the lineage B.1.1.28 with the E484K mutation (but none of the other mutations) has been reported from Brazil. There is currently little available information to assess if there are changes in transmissibility or severity as a result of these new variants; however, given similar amino acid changes observed in VOC 20212/01 and 501Y.V2, which have shown increased transmissibility and potential impacts on antibody neutralization, further investigations are needed and are underway.

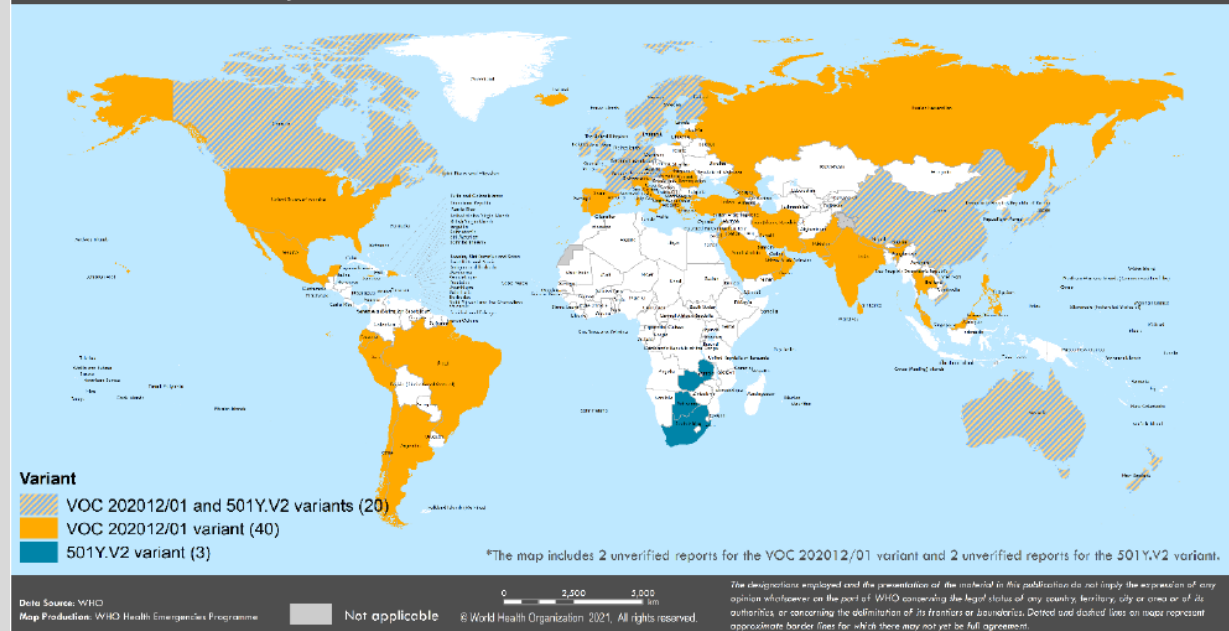
WHO response

On 14 January, WHO convened the sixth meeting of the [Emergency Committee on COVID-19](#), which included discussions on the impact of the emerging variants of SARS-CoV-2 and additional travel restrictions that many countries are imposing. The WHO secretariat presented a Risk Monitoring Framework to identify, monitor and assess SARS-CoV-2 mutations, variants of interest and variants of concern. The Emergency Committee supported the [call for a global effort](#) to sequence and share data to monitor the virus evolution and collaborate scientifically to increase global understanding of variants and their effects on vaccine, therapeutics and diagnostic efficacy. The Committee advised WHO to develop a standardized nomenclature and definitions of SARS-CoV-2 virus variants that are geographically neutral, an area WHO has already begun work in.

On 12 January and 15 January, WHO convened two global virtual meetings of scientific experts and partners, to identify and discuss critical knowledge gaps and research priorities for [emerging variants of SARS-CoV-2](#), and [vaccines developed for SARS-CoV-2](#). The participants of both meetings emphasized the importance of coordinated research to detect and understand early the potential impact of emerging variants on diagnostics, treatments, the efficacy of vaccines, the impact of vaccines on transmission of infection, and the need to develop the next generation of vaccine platforms. WHO will work to ensure that critical research is coordinated across all partners. The meeting concluded with agreement to establish a WHO-hosted platform for global sharing and coordination of emerging vaccine research information on efficacy and safety. The forum would enable scientists to share and discuss unpublished and published data and research protocols to further our collective understanding of SARS-CoV-2 vaccines.

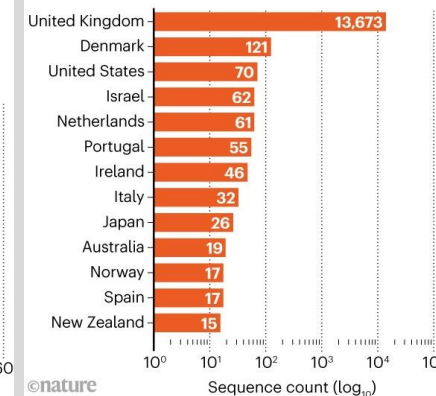
[See also the updated version of the ECDC risk assessment for the EU.](#)

Countries, territories, areas reporting VOC 20212/01 and/or 501Y.V2 variants (situation as of 19 January 2021)



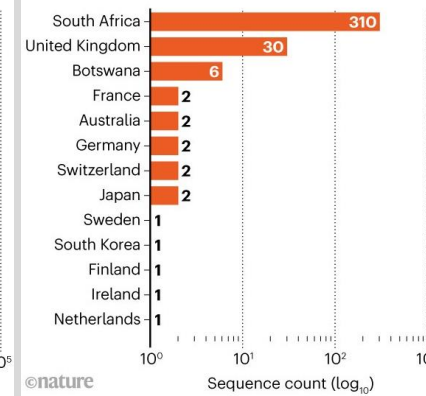
FAST-SPREADING VARIANT

Thirty-eight countries or regions have uploaded sequence data of a fast-spreading variant, called B.1.1.7, which was first identified in the United Kingdom. The top thirteen are charted below.



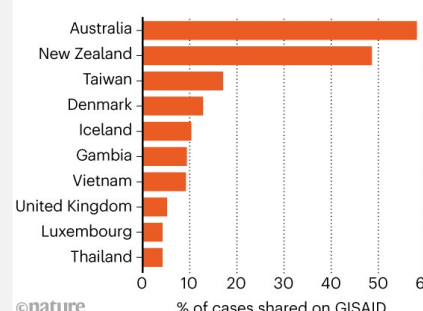
VARIANT OF CONCERN

A South African genomic-sequencing effort helped to identify a worrying variant, called 501Y.V2, in that country. Thirteen countries have now uploaded sequence data to the GISAID database.



GLOBAL SURVEILLANCE

More than 140 countries have shared SARS-CoV-2 genome data at the GISAID website. Some nations have posted sequences from a large proportion of their confirmed COVID-19 cases.



Source:

<https://www.berliner-zeitung.de/en/can-you-re-use-ffp2-masks-li.133542>

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html>

<https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>

https://www.elsevier.com/_data/assets/pdf_file/0006/997863/COVID-ECRI-N95-Respirators_2020-03.pdf

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7161499/>

<https://www.vizientinc.com/covid-19/covid-19-ffr-decontamination-methods>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks>

Filtering Facepiece Respirator (FFR) FFP-2, KN95, N95 or P2 Masks

It's noticeable: More and more people have chosen to wear FFP2/KN95/N95 masks while shopping to protect themselves and others from SARS-CoV-2. Some countries, like Germany, made wearing FFR even compulsory in public transport and retail.

But how do FFR differ from cloth masks? What is the best way to wear them and how are they cleaned?

About FFRs

The masks offer a balance of filtration and breathability. However, whereas medical masks filter 3 micrometre droplets, respirators must filter more challenging 0.075 micrometre solid particles. European FFRs, according to standard EN 149, at FFP2 performance there is filtration of at least 94% solid NaCl particles and oil droplets. US N95 FFRs, according to NIOSH 42 CFR Part 84, filter at least 95% NaCl particles. Certified FFRs must also ensure unhindered breathing with maximum resistance during inhalation and exhalation. Another important difference between FFRs and other masks is the way filtration is tested. Medical mask filtration tests are performed on a cross-section of the masks, whereas FFRs are tested for filtration across the entire surface. Therefore, the layers of the filtration material and the FFR shape, which ensure the outer edges of the FFR seal around wearer's face, result in guaranteed filtration as claimed. Medical masks, by contrast, have an open shape and potentially leaking structure. Other FFR performance requirements include being within specified parameters for maximum CO2 build up, total inward leakage and tensile strength of straps.

FFR masks must be worn correctly and changed often. They must fit very tightly to the face and sit some distance above the mouth and nose. People with beards are advised to shave. Optimal filtration only occurs when there is an airtight fit to the skin. You can tell if a mask fits properly if the mask collapses slightly when you inhale. All masks of that kind are disposable. Even if it is possible to sterilize them, they can only be reused a few times.

Certification

Demand for FFRs is rising, so there is a risk that uncertified masks could appear on the market. Pay close attention to the labelling. If the masks meet the criteria of the corresponding test standard (DIN EN 149:2009-08), the packaging is given a CE mark and a four-digit number. This provides information about the certifying institute.

Reuse of FFRs

With extended use, FFRs are worn for a prolonged period, for multiple patient contacts, before being removed and discarded (unlike conventional strategies in which an N95 FFR is used for one patient contact then discarded).

Health Institutes advises against cleaning the mask at home for reuse because the filter could be damaged and the mask could lose its function as a result.

Nevertheless, scientists around the world have conducted several studies to determine whether the protective masks can be cleaned and reused. The main focus was on the following criteria: Are pathogens killed? Does the mask still fit? Is filtration affected?

Test results for home practicable decontamination

Heat: Scientist found out, that only at 80 degrees Celsius (176 F) dry heat is no infectious coronavirus detectable after 60 minutes. The best way to cleaning the mask is:

First let the mask air-dry for a day. Then place it in the oven with 80 degrees Celsius (top and bottom heating), for 60 minutes.

The mask should only be reprocessed **five times** in this way and then disposed in household waste! Pathogens of the nose, throat and skin flora can still be present on the mask despite such heat treatment. Therefore, it is important that a mask is only ever **reused by the same person**.

Vapor: Hot steam is normally only used in hospital settings. There are some ways to use hot steam at home by packing the masks in airtight plastic bags or a stainless steel box and placed them in boiling water for about 10 minutes. This keeps the respirators dry, exposed to the heat but not damaged by it.

Using this method, the masks can be **reused for about seven to ten days** - as long as they are not otherwise damaged and are cleaned regularly

Disinfection with hydrogen peroxide, ethanol, disinfectant spray, washing machine are not recommended. This causes the masks to lose their protective function.

Table 1. Summary of decontamination methods

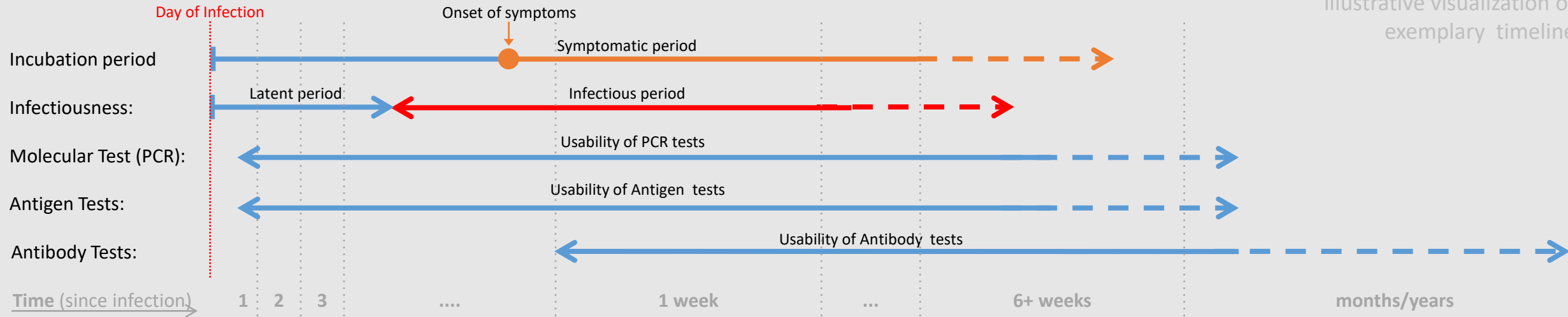
| Method | Documented effectiveness |
|---|--|
| Ultraviolet germicidal irradiation | Disinfection efficacy is dependent upon dose. Not all UV lamps provide the same intensity so treatment times must be adjusted accordingly. |
| Vaporous hydrogen peroxide | Evidence of minimal effect on filtration and fit; 99.9999% efficiency in killing bacterial spores. |
| Moist heat | Causes minimal degradation in filtration and fit performance; the major limitation is the uncertainty about disinfection efficacy for various pathogens. |
| Steam treatment | Not all microwaves are constructed the same and some are more powerful than others; the effect of higher-powered microwaves on FFRs is unknown. Metal nosebands on FFRs may cause arcing (sparks inside the microwave oven) during exposure to microwaves. |
| Liquid hydrogen peroxide | No effect on FFR filtration performance; FFR fit and disinfection efficacy not assessed. |
| Autoclave, dry heat, isopropyl alcohol, soap, dry microwave irradiation, bleach, disinfectant wipes | Autoclaving and the use of disinfectant wipes are not recommended. Decontamination using an autoclave, 160°C dry heat, 70% isopropyl alcohol, microwave irradiation and soap and water caused significant filter degradation of both FFRs and particle penetration levels. Decontamination with bleach caused slight degradation in filtration performance and created an odor that would make the FFR unsuitable for use. One type of wipe caused a sample of FFRs to exceed 5% penetration. |
| Ethylene oxide | Not recommended as a crisis strategy as it may be harmful to the wearer. |
| Other methods not tested | Other decontamination capabilities such as photodynamic inactivation of pathogens using methylene blue plus visible light exposure may be feasible, but there is no current data to evaluate their effect on FFR filtration and fit. |

Limited data is available about the effect of decontamination methods on Coronavirus and further work is needed to ensure that SARS-CoV-2 and other pathogens are inactivated by decontamination, especially in private households. Therefore, FFRs should be handled carefully even after decontamination.

All masks are only of little use if the most important hygienic principles are neglected!

Timeline COVID-19 infection

illustrative visualization of exemplary timeline



| | Molecular Tests | Antigen Tests | Antibody Tests |
|-----------------------------------|---|---|---|
| Also known as: | RT-PCR | Rapid diagnostic test | Serological test, serology, blood test, serology test |
| Applicable period: | From infection until at least 6 weeks after being symptom free | From infection until at least 6 weeks after being symptom free | As soon as 1 or 2 weeks after infection |
| How the sample is taken: | Nasal or throat swab (most tests) Saliva (a few tests) | Nasal or throat swab | Finger stick or blood draw |
| How long it takes to get results: | Several hours | Fast < 1h | Several hours or days |
| Is another test needed: | Not needed but can be repeated after negative test to reduce false negative result. | Positive results are usually accurate but negative results may need to be confirmed with a molecular test. | Sometimes a second antibody test is needed for accurate results. |
| What it shows: | Active coronavirus infection (i.e. presence of SARS-CoV-2) | Active coronavirus infection (i.e. presence of protein fragments of SARS-CoV-2) | If you've been infected by coronavirus in the past |
| What it can't do: | Show if you ever had COVID-19 or were infected with the coronavirus in the past. Show if you are currently infectious. | Definitively rule out active coronavirus infection. Antigen tests are more likely to miss an active coronavirus infection compared to molecular tests. Your health care provider may order a molecular test if your antigen test shows a negative result but you have symptoms of COVID-19. | Diagnose active coronavirus infection at the time of the test or show that you do not have COVID-19 |

Sources:
<https://www.fda.gov/consumers/consumer-updates/coronavirus-testing-basics>
<https://www.sciencemediacenter.de/alle-angebote/fact-sheet/details/news/verlauf-von-covid-19-und-kritische-abschnitte-der-infektion/>
<https://www.apotheken-umschau.de/Coronavirus/Corona-Nachweis-Die-Testverfahren-im-Ueberblick-558071.html#Die-Testverfahren-im-Ueberblick:>

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!

21th January 2021

Aljazeera

Brazil's most vulnerable communities face COVID food crisis

<https://www.aljazeera.com/economy/2021/1/21/coronavirus-hits-brazils-isolated-poor-hardest>

21th January 2021

BBC

Covid: How a £20 gadget could save lives

<https://www.bbc.com/news/health-55733527>

20th January 2021

DW

How to feed the world amid COVID and climate crises

<https://www.dw.com/en/how-to-feed-the-world-amid-covid-and-climate-crises/a-56284066>

21th January 2021

Reuters

U.S., staying in WHO, to join COVID vaccine push for poor nations: Fauci

<https://www.reuters.com/article/us-health-coronavirus-who-usa-idUSKBN29Q12B>

20th January 2021

Aljazeera

As Zimbabwe's COVID cases surge, gravediggers struggle to cope

<https://www.aljazeera.com/news/2021/1/20/as-covid-cases-in-zimbabwe-surge-gravediggers-struggle-to-cope>

19th January 2021

The Guardian

Fighting climate crisis made harder by Covid-19 inequality, says WEF

<https://www.theguardian.com/business/2021/jan/19/climate-crisis-covid-19-inequality-wef>

21th January 2021

The Economic Times

5 dead in Serum Institute fire; Covishield facility unaffected

<https://economictimes.indiatimes.com/news/politics-and-nation/fire-at-serum-institute-of-india-building-site-covid-19-vaccine-output-not-hit>

20th January 2021

The Guardian

Talking can spread Covid as much as coughing, says research

<https://www.theguardian.com/world/2021/jan/20/talking-can-spread-covid-as-much-as-coughing-says-research>

20th January 2021

The Guardian

Covid vaccines may need updating to protect against new variant, study suggests

<https://www.theguardian.com/society/2021/jan/20/covid-vaccines-may-need-updating-to-protect-against-new-variant-study-suggests>

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



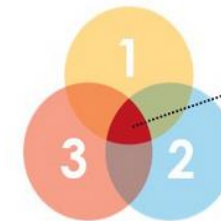
Close-contact settings

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.

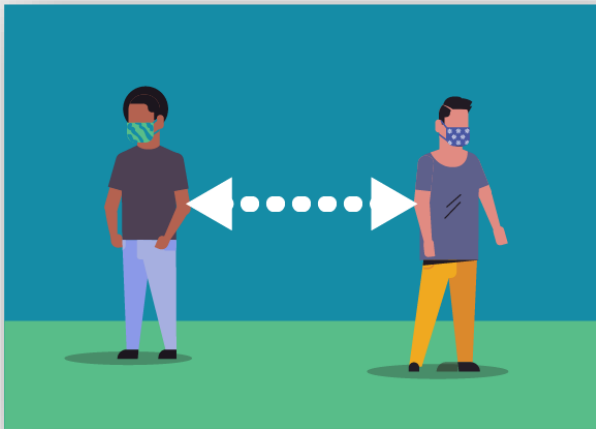
In the case of protective masks with an advertised protective effect in connection with SARS-CoV-2, depending on the intended purpose, a distinction is made between two types:

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:

