



Short Update 41a COVID-19 Coronavirus Disease 16th of October 2020



info.dhsc@coemed.org

Branch Chief
Phone: +49 89 1249 4003
Branch Admin
Phone: +49 89 1249 4001

GLOBAL



38 842 335

Confirmed cases
26 835 750
recovered
1 097 533 deaths

USA

(new cases/day 70 227)



7 918 636

confirmed cases
3 148 711 recovered
216 862 deaths

India

(new cases/day 67 708)



7 307 097

confirmed cases
6 383 441 recovered
111 266 deaths

Brazil

(new cases/day 27 235)



5 169 386

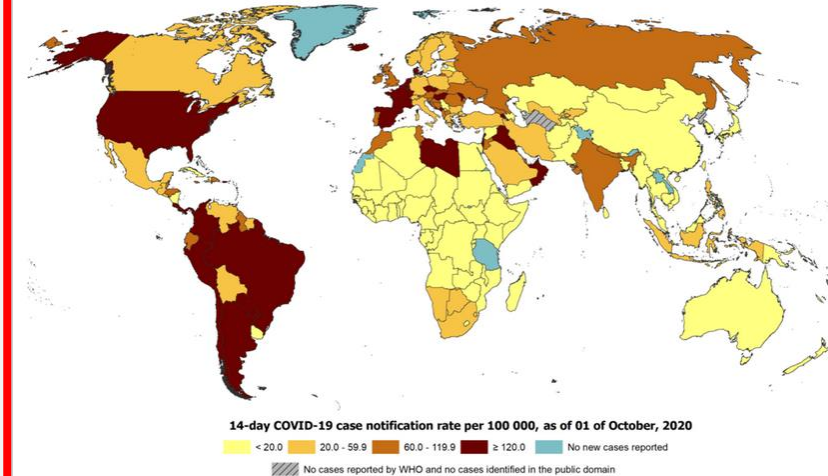
confirmed cases
4 526 393 recovered
152 460 deaths

News:

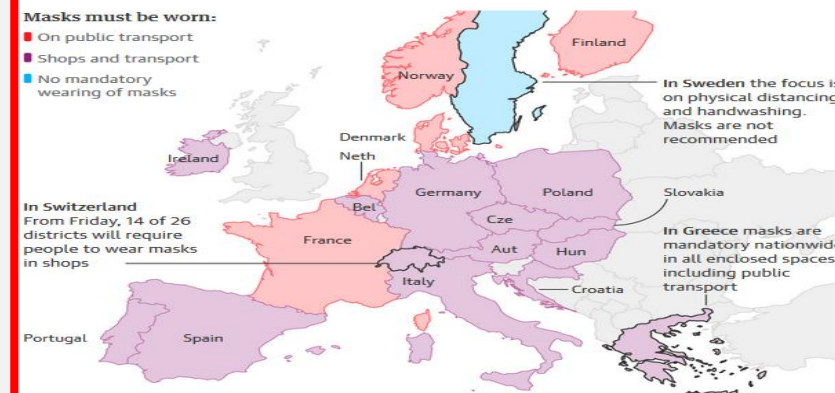
- **ECDC:** will [publish a map](#) every Thursday in support of [the Council Recommendation on a coordinated approach to the restriction of free movement in response to the COVID-19 pandemic](#) which was adopted by EU Member States on 13 October 2020. The maps are based on data reported by EU Member States to the European Surveillance System (TESSy) database by 23:59 every Tuesday or that are available to ECDC from official sources.
- **ECDC:** published a tool to [download data on hospital and ICU admission rates](#) and current occupancy for COVID-19.
- **CDC:** issued updated guidance to its [How COVID-19 Spreads](#) website, which includes information about the potential for airborne spread of the virus that causes COVID-19. CDC's recommendations remain the same based on existing science and after a thorough technical review of the guidance.
- **RUS:** According to President Vladimir Putin, Russia has [approved a second corona vaccine](#). Putin congratulated scientists on approving the new vaccine, developed by the Siberian Vector Institute, which completed early human clinical trials last month.
- **Facebook:** announced a [new policy banning ads that discourage the use of vaccines](#). The Internet company announced this on Tuesday. Alongside the new ads policy, Facebook will actively promote vaccination through [a public information campaign](#). Advertisements criticizing certain measures taken by governments in connection with vaccinations will however still be allowed.
- **WHO's** health emergencies online learning platform: [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:** A common approach to travel measures in the EU
- **FAQ:** General questions about COVID-19 and aerosol transmission
- **In the press**



Face mask rules vary across Europe



Disclaimer:

This update provided by the NATO Centre of Excellence (NATO MILMED COE) on its website is for general information purposes only and cannot be considered as official recommendation. All national and international laws, regulations, and guidelines as well as military orders supersede this information. All information is provided in good faith, however, the NATO MILMED COE makes no representation or warranty of any kind, express or implied, regarding the accuracy, adequacy, validity, reliability, availability or completeness of any information. The information published on this website is not intended to substitute professional medical advice, diagnosis or treatment.

EUROPE



6 894 441

confirmed cases

3 064 450 recovered

245 277 deaths

Russia

(new cases/day 13 556)



1 346 380

confirmed cases

1 043 431 recovered

23 350 deaths

SPAIN

(new cases/day 13 318)



921 374

confirmed cases

150 376 recovered

33 553 deaths

FRA

(new cases/day 30 621)



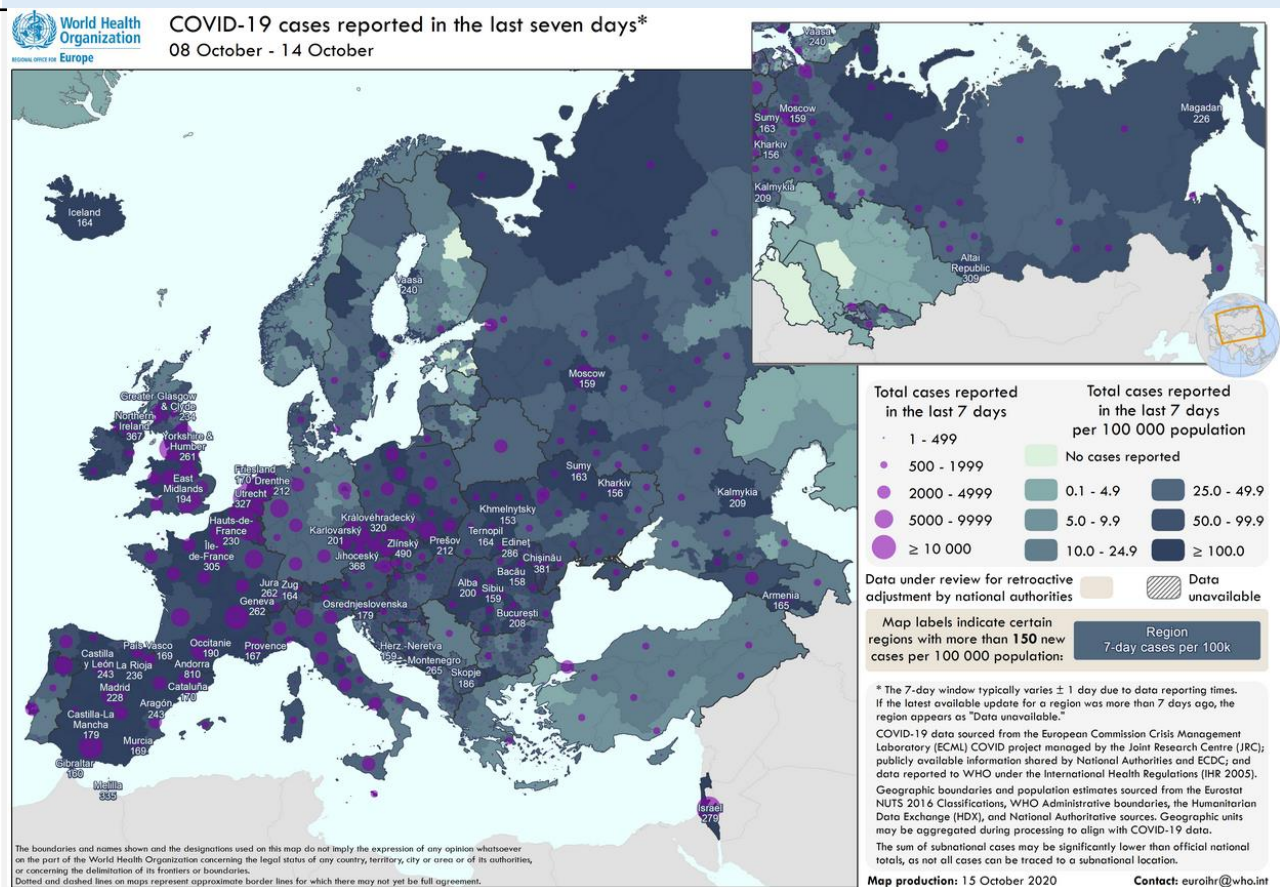
809 684

confirmed cases

104 082 recovered

33 125 deaths

Global Situation



FRA: In the fight against rising corona numbers, the health emergency will be reintroduced in France from this Saturday. The state of emergency in the health sector provides a legal framework for restrictions. This also includes night curfews. Starting next weekend, people in the French capital and in Grenoble, Lille, Lyon, Marseille, Rouen, Saint-Etienne and Toulouse will only be allowed to leave the house in exceptional cases between 9 p.m. and 6 a.m. From yesterday until today 30,621 new cases and 88 new deaths have been reported.

CHE: the number of newly confirmed coronavirus cases has risen sharply in the past few days. On Wednesday 2823 confirmed new infections were reported. The 7-day average of new infections increased in the past few days to 1247, seven days ago it was 585. The previous high from the end of March was thus exceeded in October.

ITA: has registered more than 8,000 new coronavirus infections in the last 24 hours. This was announced by the Ministry of Health in Rome. There were also 43 COVID-19-related deaths compared to 41 the previous day.

ESP: To curb the sharp rise in corona infections, the Spanish region of Catalonia with the tourist metropolis of Barcelona has ordered the closure of all bars and restaurants. The instruction is initially valid for 15 days and comes into force on Friday. In addition, residents should only leave their homes for urgent reasons and limit social contacts. Shopping centers and larger supermarkets must limit the number of customers to 30 percent of their normal capacity. A limit of 50 percent applies to fitness centers, cinemas and theaters.

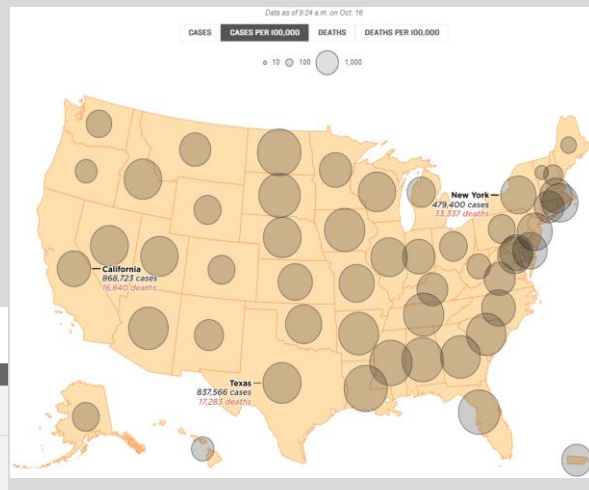
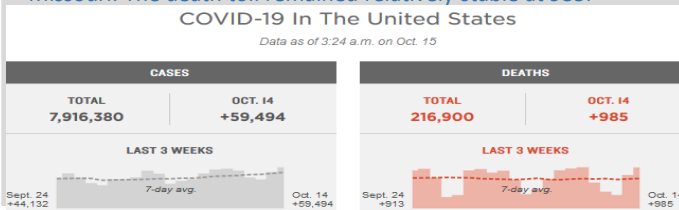
DEU: As the Robert Koch Institute (RKI) announced on Friday morning, 7334 new cases of infection were recorded within one day. This is the highest number of new infections registered during the outbreak to date. The increase in the past few days was rapid. On Wednesday last week, the health authorities had reported 2828 new infections to the RKI. The number of deaths has also been at a significantly higher level since Wednesday. The RKI reported 40 new deaths within one day on Wednesday. There is a clear increase in the number of COVID-19 patients treated in intensive care. According to the RKI situation report, 655 people infected with corona were treated in intensive care on Thursday, 329 of whom were ventilated. The federal and state governments met with the Chancellor yesterday to discuss the further anti-corona strategy. Reduce the number of guests at celebrations, curfew and contact restrictions in hotspots as well as the expansion of the mask requirement are under discussion.

AUT: the number of new infections with the coronavirus has risen again to a record level. Within one day, 1346 new cases were counted. Taking into account the number of residents, the value is roughly twice as high as in Germany. The most new cases were recorded in Vienna (402), Upper Austria (234), Tyrol (184), Lower Austria (139) and Salzburg (134). The occupancy of beds with COVID-19 patients in intensive care and normal wards in Austria's clinics has also increased recently.

GBR: 18,980 new cases of infection were registered within 24 hours. 138 people who had previously tested positive for the coronavirus died. The day before, the government had reported 19,724 new infections and 137 deaths.

ISR: The lockdown restrictions in Israel will initially be extended until next Sunday. The first easing should be discussed on Thursday. These include the opening of small shops that are not open to the public and of kindergartens. The easing should take place gradually.

USA: The number of new coronavirus infections in the US has risen to almost 60,000 in one day, its highest level since the beginning of August. The increase was particularly strong in some Midwestern states such as North Dakota, South Dakota and Missouri. The death toll remained relatively stable at 985.



Global Situation

New rapid antigen tests could transform COVID-19 response in the Americas

In the Americas region more than 18 million COVID-19 cases and more than 590,000 deaths have been reported. Currently Canada is facing a second wave, cases in Argentina continue to accelerate, the Caribbean is seeing a high number of cases. While Brazil and the U.S. remain significant drivers of new cases in the region, the government concerned by spikes in cases – including in places that had effectively managed outbreaks, like Cuba and Jamaica. Over the past 60 days, 11 countries and territories in the Caribbean have moved from moderate to intense transmission, which is a concerning development as countries reopen airspace. In a lot of countries, the pandemic has also moved to less populated areas where measurements and testing somehow is not easy to conduct.

Another impact is the new ways in which the virus is spreading among younger people who have mild or no symptoms and are unaware they are infected. In the US, young people, especially those aged 20-29 years old, represent 20% of new cases. While many young people won't become ill or require an ICU bed, they are not immune to developing the serious effects of COVID-19 and pass it on to more vulnerable persons without knowing. It is a key factor to determine these asymptomatic cases as soon as possible. The new antigen test can be used for screening in those communities.

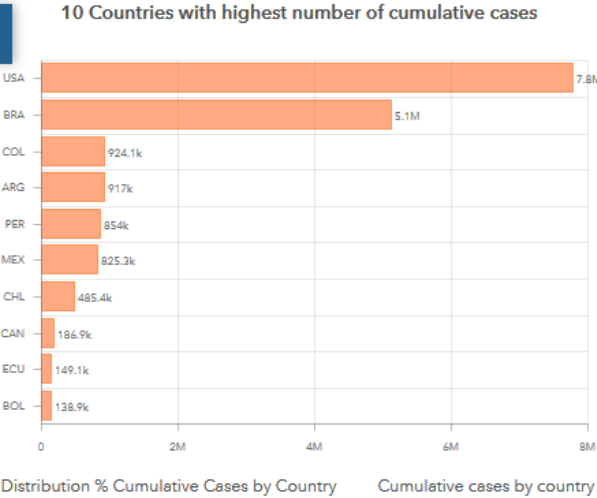
PCR diagnostic tests, which are highly accurate and must be conducted in lab settings remain the gold standard for testing, but delays in getting results mean that people run the risk of infecting others while they await results. Also it is not easy to carry them out in more urban settings. The new tests will enable primary healthcare workers, whether they're working in the middle of the Amazon, or in an urban center, to diagnose and care for patients immediately, stopping further infections in their tracks. So they can be the gamechanger in COVID-19 response.

PAHO conducting pilot studies in four countries to help make the most of these new diagnostics. Millions of these tests will be made available to countries of the Region at an accessible price via PAHO's Strategic Fund.

Unlike previous rapid, antibody tests, which can show when someone has had COVID-19 but often give a negative result during the early stages of infection, the new rapid, antigen tests are much more accurate in determining if someone is currently infected.

Summary:
By providing results quickly, the new test empowers frontline health workers to better manage cases by isolating patients to prevent further spread and to begin treatment immediately. Therefore the diagnostic tests will be particularly useful in hard to reach areas without easy access to a laboratory, which have been disproportionately impacted by the pandemic.

Source: <https://www.paho.org/en/news/14-10-2020-new-rapid-antigen-t>
<https://www.paho.org/en/news/7-10-2020-some-countries-showing-spike>



Zoonoses on the rise- Not only SARS-COV-2 crosses borders between species

It is well known that many viruses that cause disease in humans can also infect various animal species. However, there are also types of viruses that are considered to be anthroponoses or purely human pathogenic, such as measles. One of them has been the rubella virus. However, according to new research results, this attitude may must be revised, because at the same time diseases were observed in different animals independently in the USA and Germany.

The starting point for the study in Germany were three zoo animals (donkey, tree kangaroo and capybara) that had died of an unknown disease. As the responsible authority, the Friedrich Loeffler Institute (Federal Research Institute for Animal Health) carried out a genome analysis and came across the Rustrela virus, an extremely close relative of the rubella, as the trigger. In order to decipher the transmission path, the researchers analyzed several animal species in the vicinity of the zoo, including rodents. These are often considered to be hosts for pathogens that can occur between different species. It turned out that yellow-necked mice, which can also transmit the hantavirus, which is dangerous for humans, carried the Rustrela virus. But unlike the other animals, they were bright and healthy. The rodents must therefore be viewed as a reservoir for the new virus.

At the same time, researchers from the USA made a similar discovery. Actually, they were looking for ways to transmit new types of corona viruses such as SARS-CoV-2 in Cyclops round-leaf bats in Uganda. By a chance finding, they detected the so-called Ruhugu virus in mammals - this is confusingly similar to the human rubella virus and the newly discovered Rustrela virus.

This makes the two virus strains the first newly discovered members of the rubella-like virus family for over 200 years.

The risk for humans from these subspecies is currently classified as low, as the rubella vaccination has been reliably tested and has been part of the recommended vaccination scheme for several decades at least in industrialized countries and is routinely carried out as part of the so-called triple vaccination against mumps, measles and rubella .

The discovery of the researchers shows, that diseases that can originate as zoonoses in different species will gain more and more importance in the future; in particular also with regard to the advance of humans into previously undeveloped, new habitats such as the jungle areas in Africa and South America. Animal-associated pathogens and the pandemics caused by them, such as the current COVID-19 pandemic, must be taken seriously as a consequence of this aggressive land use and remain the focus of politics and research for future disaster scenarios and crisis planning.

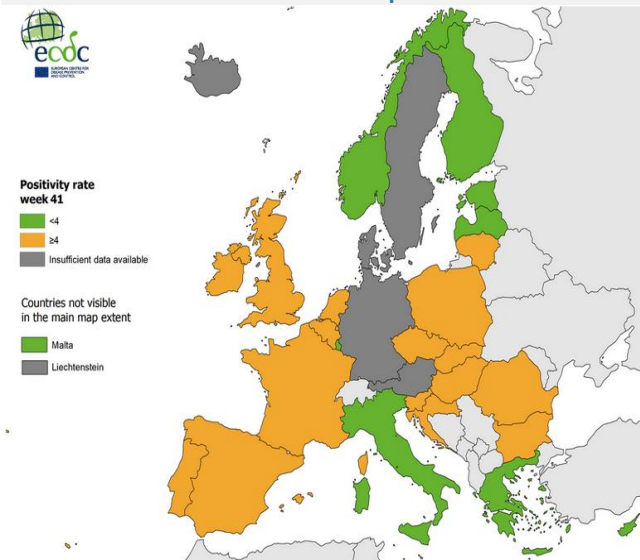
Source: <https://www.nature.com/articles/s41586-020-2812-9>



Subject in Focus

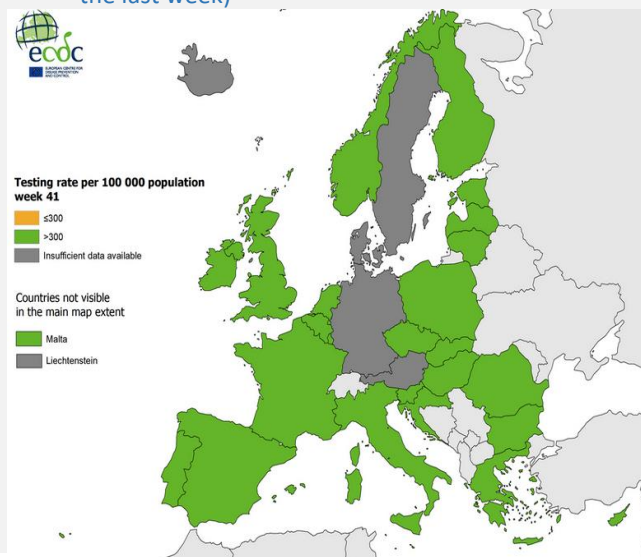
A common approach to travel measures in the EU

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.



To limit the spread of the coronavirus outbreak, the EU's 27 Member States have adopted various measures. To assure a well-coordinated, predictable and transparent approach to the adoption of restrictions on freedom of movement to prevent the spread of the virus, safeguard the health of citizens as well as maintain free movement within the Union, under safe conditions the member states adopted a recommendation set with four key areas where they coordinate their efforts. 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)



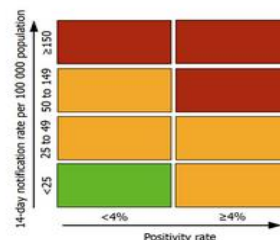
2. A common map

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.

- green**, if the notification rate is less than 25 and the test positivity rate is less than 4%;
- orange**, if the notification rate is less than 50 but the test positivity rate is 4% or more, or, if the notification rate ranges from 25 to 150 but the test positivity rate is less than 4%;
- red**, if the notification rate is 50 or more and the test positivity rate is 4% or more, or if the notification rate is more than 150;
- grey**, if not sufficient information is available or if the testing rate is 300 or less.
- general information** for travellers to the risk level at their destination.



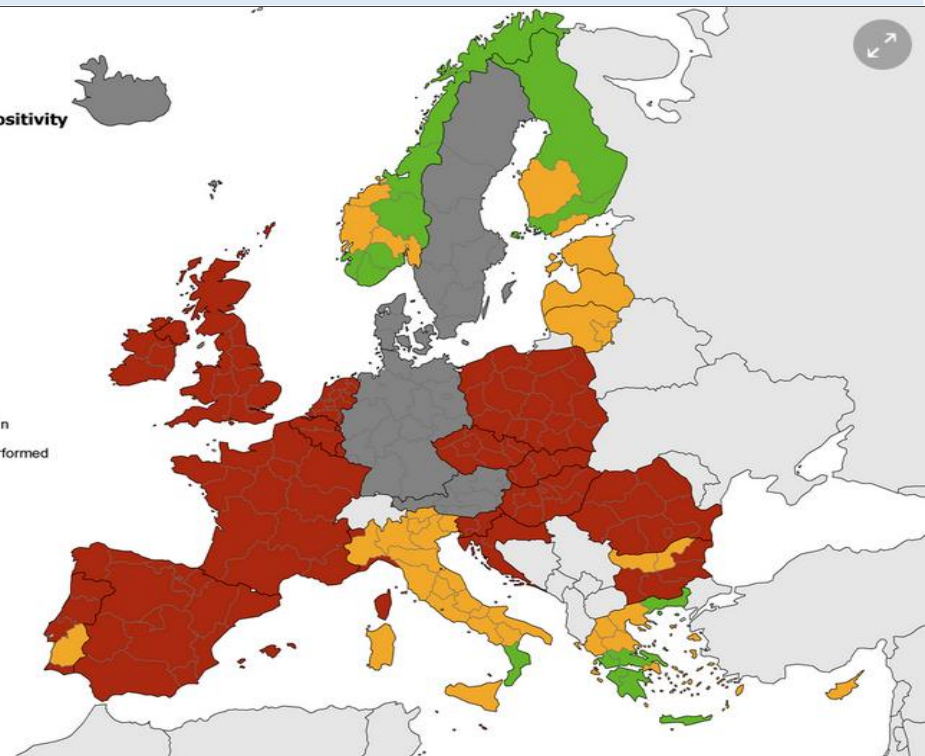
14-day notification rate and test positivity for EU, EEA and UK weeks 40 - 41



Grey: Testing rate < 300 per 100 000 population
 Grey: No data available on number of tests performed

Regions not visible in the main map extent

- Orange: Azores
- Red: Canary Islands
- Grey: Greenland
- Orange: Madeira
- Red: Malta
- Grey: Liechtenstein



Administrative boundaries: © EuroGeographics © UN-FAO © Turstat. Office for National Statistics licensed under the Open Government Licence v.3.0. Contains OS data © Crown copyright and database right 2020. © Kartverket © Instituto Nacional de Estatística - Statistics Portugal. The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union. ECDC. Map produced on: 15 Oct 2020

3. A common approach for travellers

- Member States have agreed that there will be no restrictions, such as quarantine or testing, on travellers coming from 'green' regions.
- Persons travelling from areas classified other than 'green' could be required to – under go quarantine; and/or; - undergo a test for COVID-19 infection after arrival.
- The decision on measures to apply on people travelling from risk areas to their territories is up to the member state.
- Travellers with an essential function or need will not be required to undergo quarantine (duty travel).

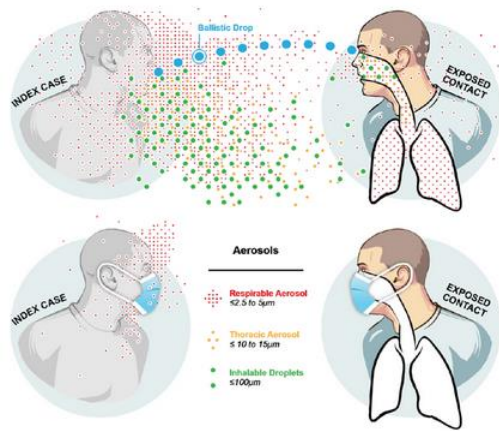
4. Clear and timely information to the public about any restriction

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](#).

FAQ

General questions about COVID-19 and aerosol transmission



How can I get COVID-19?

- The “*fomite*” path, through touching a surface that contains the SARS-CoV-2 virus and afterwards touching the mouth, nostrils, or eyes.
- The “*large droplet*” or “*ballistic droplet*” path. They infect by impacting on the mouth, nostrils, or eyes.
- The “*aerosol*” path. They infect by being inhaled through the nose or mouth, or (less likely) by deposition on the eyes. Depending on their size, they stay longer / travel further in the air, and they also reach different parts of the human respiratory tract.

What is the relative importance of the routes of transmission?

This is currently controversial. It also vary with people’s behavior,

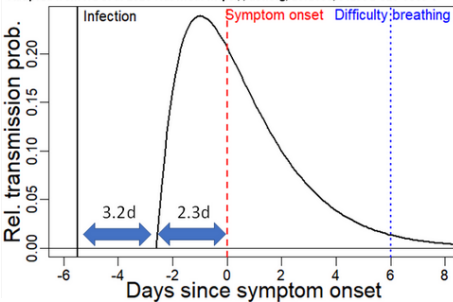
	Droplets	Fomites	Aerosols
Outdoors << Indoors	X	✓	✓✓
Similar viruses demonstrated	X	✓	✓
Animal models	?	✓	✓
Superspreading events	X	X	✓✓
Supersp. Patterns similar to known aerosol diseases	n/a	n/a	✓
Importance of close proximity	✓	X	✓✓
Consistency of close prox. & room-level	X	X	✓
Physical plausibility (talking)	X	✓	✓
Physical plausibility (cough, sneeze)	✓	✓	✓
Impact of reduced ventilation	X	X	✓
SARS-CoV-2 infectivity demonstrated in real world	X	X	✓
SARS-CoV-2 infectivity demonstrated in lab	X	✓	✓
“Droplet” PPE works reasonably well	✓	✓	✓
Transmission by a/pre-symptomatics (no cough)	X	✓	✓
Infection through eyes	✓	✓	✓
Transmission risk models	✓	✓	✓

Key:
✓: evidence
✓✓: very strong ev.
X: no evidence
n/a: not applicable
(v1.45, 13-Sep-2020)

Only including the items that could bear on multiple pathways. See other slides for details and references

Table: [preliminary summary of the evidence](#) supporting each of the three routes of transmission. Aerosols has the most supporting evidence. Fomites has significant supporting evidence. Ballistic droplets have very little supporting evidence.

Adapted from He et al 2020 Nat Med: <https://doi.org/10.1038/s41591-020-0869-5>



Are all infected people equally contagious?

Not at all. First of all, it is very clear that there is a large variability in time for a given person. It is very well known that there is a peak of contagiousness just before and at the onset of symptoms, and that then contagiousness decreases. even for infected individuals virus emission is not constant. it is likely that some individuals are more contagious than others. This can be due e.g. to higher viral load at the onset of symptoms, to higher emissions of respiratory particles, or (likely) to both.

How long does the SARS-CoV-2 remain infectious in aerosols?

Multiple studies have addressed this question in the laboratory. Overall it seems that the lifetime may be about 1-2 hours at typical room temperature (~20°C or 70°F).

Does temperature affect the survival of the virus in the air?

Low temperatures can greatly increase the survival of the virus, while high temperatures reduce it. Superspreading events in meat packing plants are thought to have been helped by higher virus survival in the air at low temperature. Researchers freeze viruses to keep them viable for years, although this requires lower temperatures than in home freezers (-80oC). Higher temperatures reduce the viability of viruses.

Does relative humidity (RH) affect transmission?

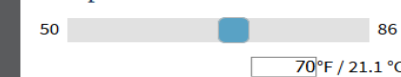
Humidity has a few effects:

- Lipid-enveloped viruses, including SARS-CoV-2, are thought to survive better in the air under drier conditions. This is thought to be an important reason leading to the flu season in winter, as indoor air is drier then.
- Dry conditions may also make humans more susceptible to infection, due to factors such as epithelial damage, mucociliary clearance impairment, and increased mucin production.
- If the humidity is larger than ~85%, aerosols are larger than at lower humidity and thus the growth due to water uptake makes them settle faster to the ground. At lower humidities this effect is very small.
- This **only** matters for shared room (and any potential long range) transmission, if the distance is not kept,

UV Index:



Temperature:



Relative Humidity:



COVID Stability:

% Virus Decay	Minutes	Hours
50% (half-life):	10.21	0.17
90%:	33.92	0.57
99%:	67.83	1.13

Where do aerosols of different sizes deposit in the human respiratory tract?

Particles smaller than 100 μm can be inhaled (i.e. are aerosols), while larger particles cannot. In particular there is a minimum at 0.3 μm, which is the typical size of smoke aerosols. Thus even though masks are least efficient at blocking aerosols of size 0.3 μm, the same physics means that it is also less likely for those aerosols to deposit in our bodies. Larger aerosols deposit in the head region (nose etc.) because they can’t make turns easily, and impact with the walls of our nasal and oral cavities. As the size approaches 100 μm, the aerosols are “clumsier” and thus less likely to follow air flow into our noses and mouths, and settle to the ground faster, so the efficiency of inhalation becomes very low. Aerosols smaller than ~10 μm can penetrate deeper into the respiratory tract.

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!

11th October 2020

Aljazeera

Scientists investigate possible coronavirus mutation in Chile

<https://www.aljazeera.com/news/2020/10/11/scientists-investigate-possible-coronavirus-mutation-in-chile>

15th October 2020

Aljazeera

WHO fears more tuberculosis deaths as COVID-19 pandemic continues

<https://www.aljazeera.com/news/2020/10/15/tb-story-who>

12th October 2020

DW

The coronavirus pandemic: A threat to food security

<https://www.dw.com/en/the-coronavirus-pandemic-a-threat-to-food-security/a-55231380>

16th October 2020

Aljazeera

WHO trial finds remdesivir has little effect

<https://www.aljazeera.com/news/2020/10/16/who-trial-finds-repurposed-drugs-have-little-effect-on-covid-19>

11th October 2020

The Guardian

Would herd immunity stop the spread of coronavirus?

<https://www.theguardian.com/world/2020/oct/11/would-herd-immunity-stop-the-spread-of-coronavirus>

12th October 2020

Aljazeera

Coronavirus can survive for 28 days on some surfaces: Study

<https://www.aljazeera.com/news/2020/10/12/coronavirus-can-survive-for-28-days-on-some-surfaces-study>

15th October 2020

South China Morning Post

Antibodies may actually help coronavirus invade cells in some cases, study suggests

<https://www.scmp.com/news/china/science/article/3105535/antibodies-may-actually-help-coronavirus-invade-cells-some-cases>

15th October 2020

South China Morning Post

Hong Kong, Singapore reach agreement in principle on 'world's first' two-way, quarantine-free travel bubble

<https://www.scmp.com/news/hong-kong/hong-kong-economy/article/3105607/coronavirus-hong-kong-singapore-set-reveal>

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



The new normal!

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.

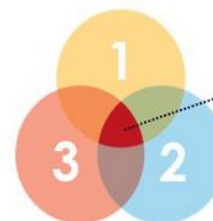
There are certain places where COVID-19 spreads more easily:



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.

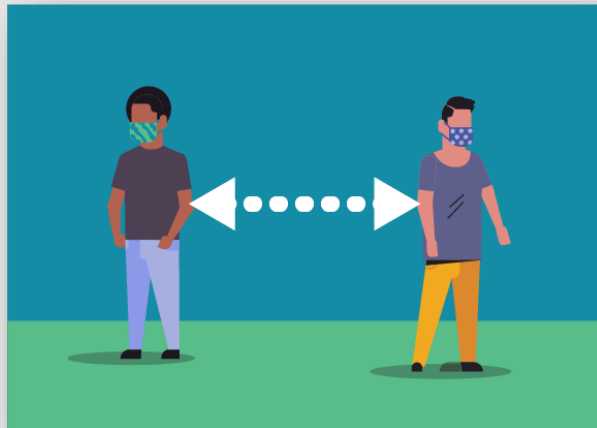
In the case of protective masks with an advertised protective effect in connection with SARS-CoV-2, depending on the intended purpose, a distinction is made between two types:

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:

