



Update 14 (6th of April 2020)

Information about Infection disease COVID-19 (novel coronavirus)



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

6th of April 2020

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

HIGHLIGHTS/NEWS

- Currently more one million confirmed cases of COVID-19 and more than 50,000 deaths are reported globally.
- Two new country/territory/area reported cases of COVID-19 over the weekend: Bonaire, Sint Eustatius and Saba and Falkland Islands (Malvinas) .
- **ECDC** published "An overview of the rapid test situation for COVID-19 diagnostics in the EU/EEA" as of 1 April. Find the document [here](#).
- **PAHO** launched a new searchable database that contains the latest guidance and research on the COVID-19 pandemic from the Americas and affected countries worldwide. The press release is available [here](#) and the database is available [here](#).
- **The European Medicines Agency (EMA)** informs that, due to the high potential for side effects, Covid-19 patients should only be treated with the malaria agents chloroquine and hydroxychloroquine within clinical tests or emergencies. Find the document [here](#).
- **WHO Director General:** "the best way for countries to end restrictions and ease their economic effects is to attack the virus, with the aggressive and comprehensive package of measures ...: find, test, isolate and treat every case, and trace every contact. If countries rush to lift restrictions too quickly, the virus could resurge, and the economic impact could be even more severe and prolonged." Whole speech can be found [here](#).
- **ECDC** is currently working on an analysis of possible exit strategies (including timing). The results will be included in the next edition of the "Guidance for social distancing measures aimed at minimising the spread of SARS-CoV-2".
- More topics of the speech were: Pandemic effect on fight against other diseases and the increasing of intimate partner violence.
- **WHO** has released new technical guidance recommending universal access to public hand hygiene stations and making their use obligatory on entering and leaving any public or private commercial building and any public transport facility. It also recommends that healthcare facilities improve access to and practice of hand hygiene. Find more [here](#).
- **An ECDC** update on "Coronavirus disease 2019 (COVID-19) pandemic: increased transmission in the EU/EEA and the UK" you can find [here](#).
- The ECDC recommended webpage with the latest updates on test capability development for COVID-19 you can find [here](#).

GLOBALLY

1 280 046

confirmed cases
69 789 death
183 countries

EU/EEA and the UK

690 228

confirmed cases
50 048 death

ASIA & West Pacific Region

121 386

confirmed cases
4 251 death

America's Region

386 957

confirmed cases
11 128 death

Eastern Mediterranean Region

74 492

confirmed cases
3 974 death

Africa

6 983

confirmed cases
275 death

Risk Assessment

EUROPE

- * The risk for importing/exporting the virus into/from Europe is currently high.
- * The risk of severe disease associated with COVID-19 infection is currently considered moderate for the general population and high for older adults and individuals with chronic underlying conditions. In addition, the risk of milder disease, and the consequent impact on social and work-related activity, is considered high.
- * The risk of the occurrence of subnational community transmission of COVID-19 is currently considered very high.
- * The risk of occurrence of widespread national community transmission of COVID-19 in the coming weeks is high.
- * The risk of healthcare system capacity being exceeded in the coming weeks is considered high.

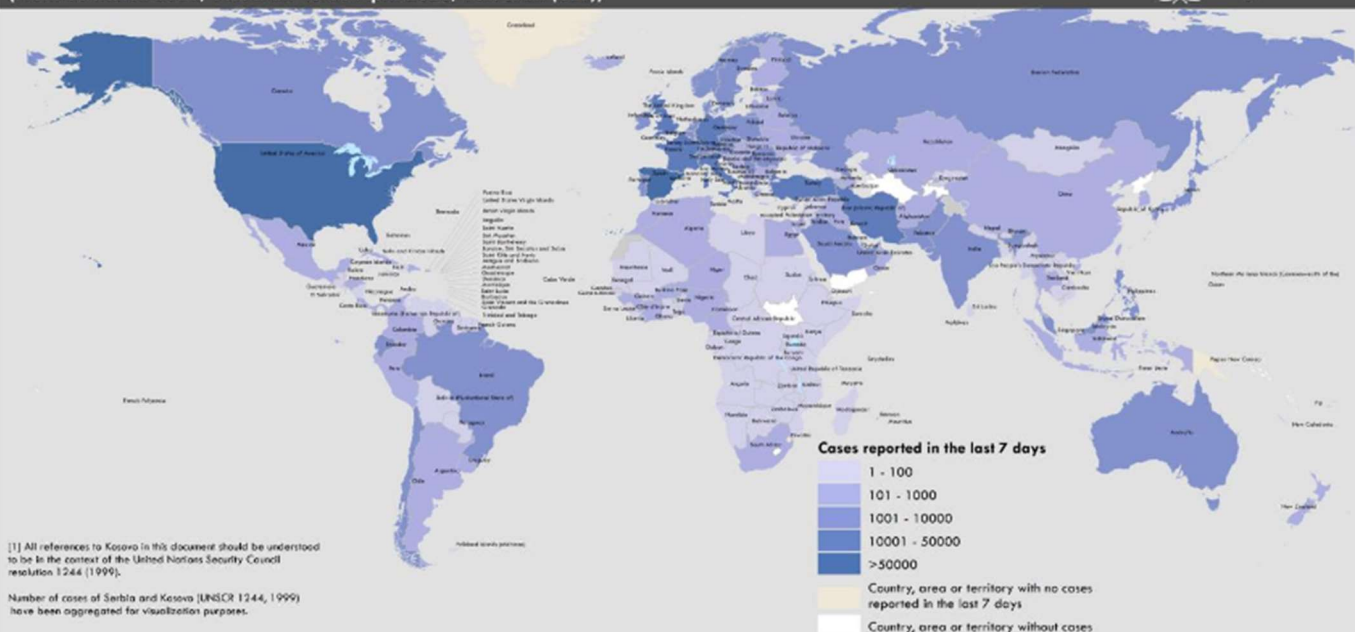
GLOBALLY

- * The risk for people travelling/resident in affected provinces with ongoing community transmission is currently very high.

Countries, areas or territories with COVID-19 cases reported in the last 7 days (From 30 March 2020, 10:00AM to 05 April 2020, 10:00AM (CET))



World Health Organization

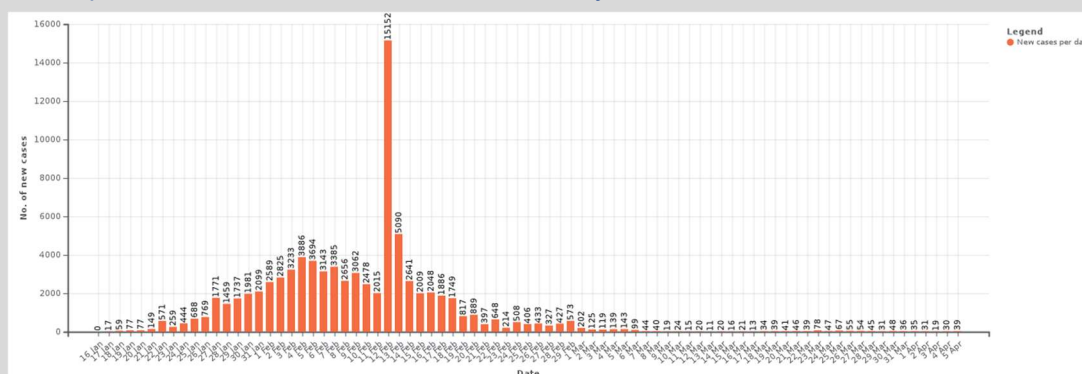
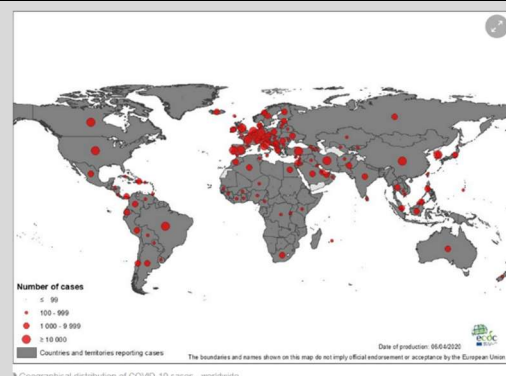


The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

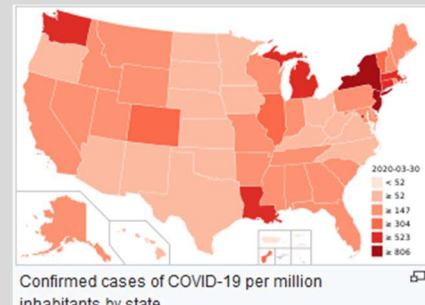
Bullet Points

Global Situation

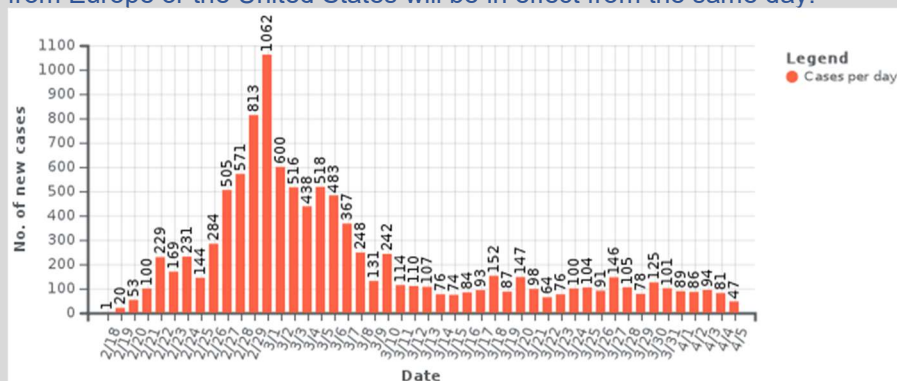
- All states in Europe and most of the countries globally are already affected.
- The ECDC map shows the Number of absolute cases. Currently the focus still lies in Europa, however, numerous American countries have now been added, as well as Africa and the Arab region/Near East and southern Asia are showing increasing numbers of cases.
- UKR:** Very good responding of the government to first cases. But because of the underfunded and worse condition of the health system the progression of the pandemic is worrying.
- China:** The slowdown in manufacturing, construction, transportation and overall economic activity created a temporary reduction by "about a quarter" in China's greenhouse gas emissions. Chinese government declared 4 April, the Qingming Festival of 2020, a national day of mourning for those who lost their lives in the coronavirus pandemic. All public entertainment were halted for the day.



- USA:** New York is still the epicentre of the pandemic in USA with New Orleans on the second lead. DEU officials reported that in a competition for masks US buyers were paying far above the market price and were outbidding European buyers. Mask-related disputes have been reported between other countries, such as between Germany, Austria and Switzerland, as well as Canada and the USA.



- South Korea:** As infection rates have risen outside Korea leading to increases of sick arriving in the country (476 of 9,661 cases were imported as of 30 March), government will be implanting stronger infectious disease control measures for travellers coming from overseas as of 1 April. Additionally, new self-quarantine measures for travellers coming from Europe or the United States will be in effect from the same day.



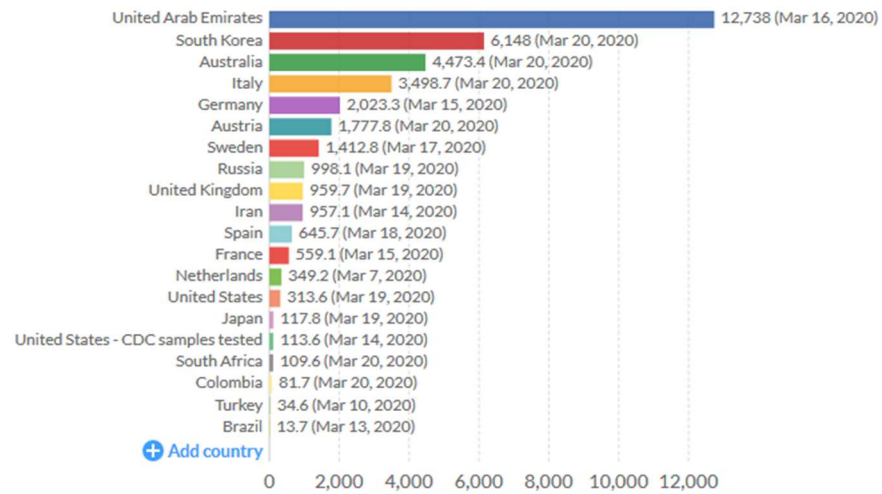
- Africa:** South Africa: strict exit regulations have been implemented. Police and military enforce the regulation partly violently. Bulk testings are announced. Also, in Kenya, Senegal and Niger violence against the public have been reported. People are fighting against the regulations.

COVID-19 data as of 20 March: Total tests performed per million people

Our World in Data

Data collected by Our World in Data from official country reports.

For some countries the number of tests corresponds to the number of individuals who have been tested, rather than the number of samples.



Source: Our World in Data

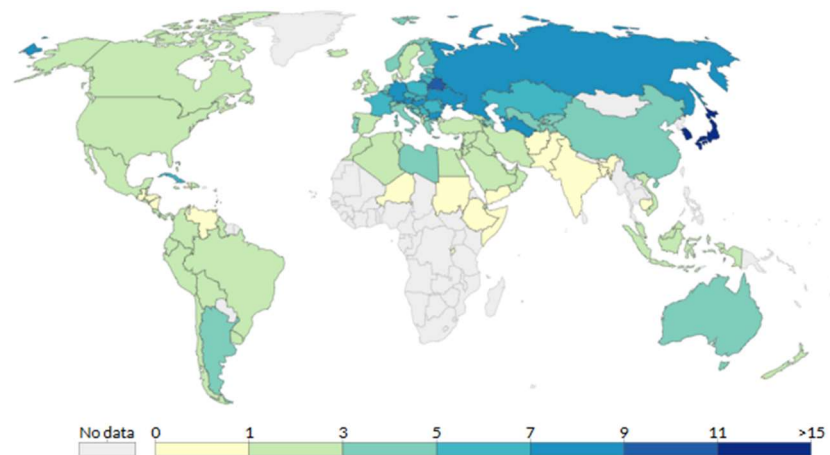
Note: Data for the United States corresponds to estimates from the COVID-Tracking Project.

CC BY

Hospital beds per 1,000 people, 2018

Our World in Data

Hospital beds include inpatient beds available in public, private, general, and specialized hospitals and rehabilitation centers. In most cases beds for both acute and chronic care are included.

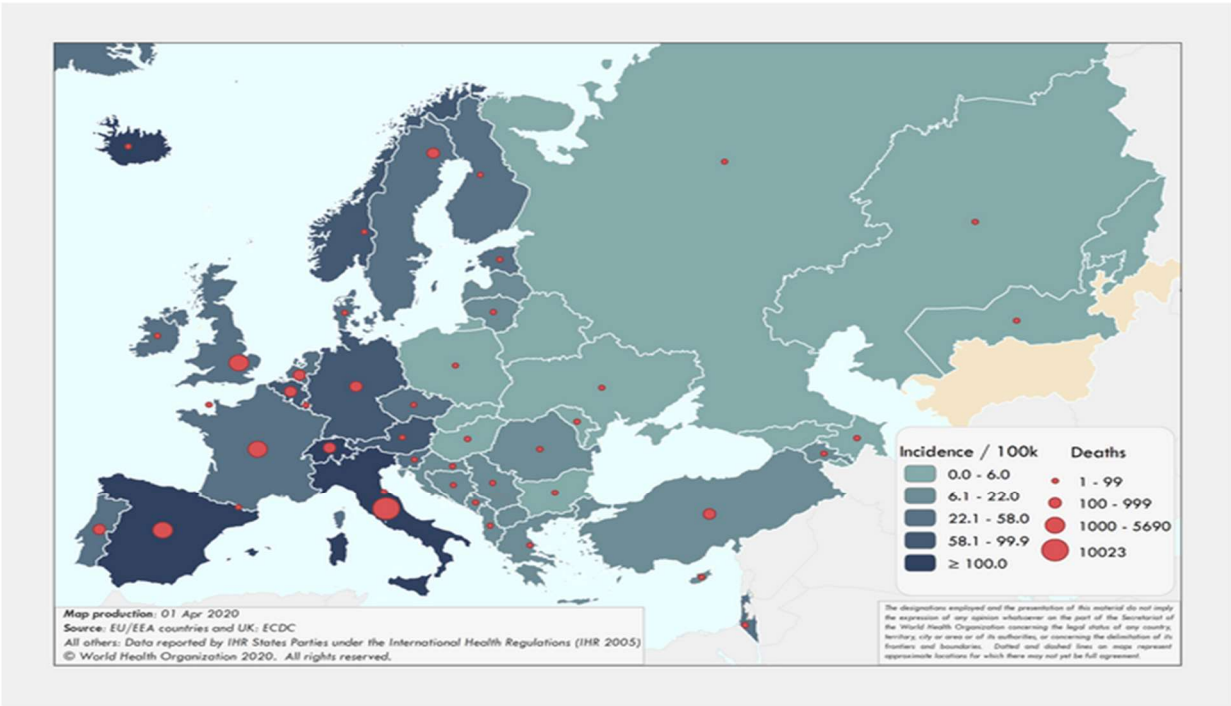


Source: OECD; Eurostat; WHO and other sources

Note: This is an ongoing project to build a global dataset of healthcare capacity. If you know of data which is not yet included, please submit it here: https://docs.google.com/spreadsheets/d/1nSDwFWmnqvcP5Ut_epcnbjZrR8PcnU6enupT8G5d0s/edit

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COVID-19 cumulative incidence / 100,000 population and number of deaths by country

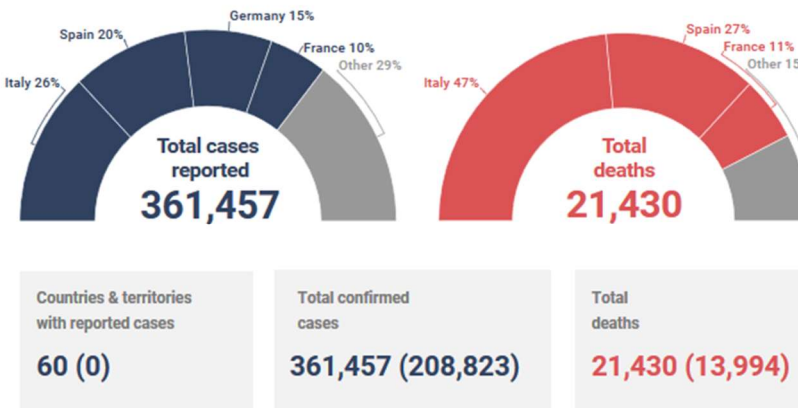


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COVID-19 situation update for the WHO European Region (23-29 March 2020 Epi week 13)

Key points

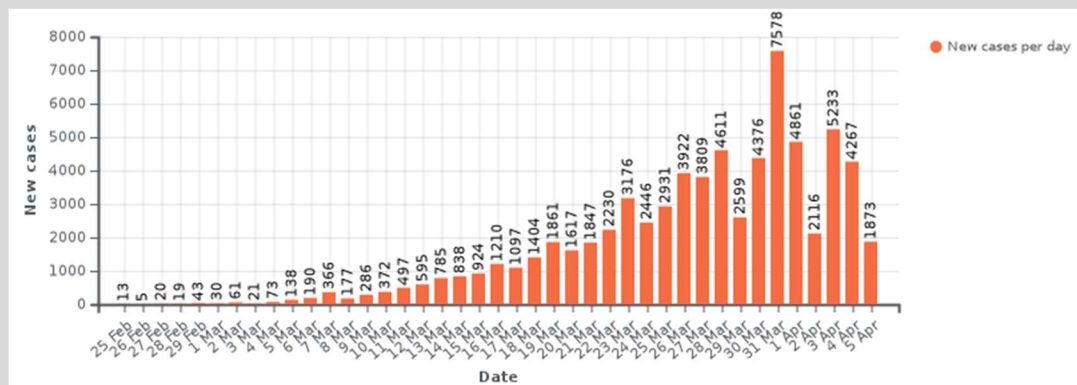
- The number of cases reported in the Region doubled compared to week 12/2020
- 71% of the cases have been reported from Italy, Spain, Germany and France
- 84% of the deaths have been reported from Spain, Italy, and France
- 95% of deaths were in persons aged 60 years and older
- 83% of deaths with information available had at least one underlying condition
- One out of 10 reported infections with information available was in a health care worker
- High excess mortality is observed in some EuroMoMo participating countries, primarily in the age group of 65 years and above (see European Mortality Bulletin <https://www.euromomo.eu/>).
- Five countries reported on COVID-19 detections in persons with influenza-like illness presenting to sentinel surveillance sites; percent positivity ranged from 0-29%



(numbers in brackets are new for the week of 23-29 March 2020)

- **Greece:** Thirteen reporting hospitals have been designated to deal with cases. The main affected areas are Iliia and Attica. Second refugee camp closed off because of confirmed COVID-19 cases in refugees. Camp under quarantine for 14 days. All refugees in the camp should now be tested stepwise for COVID-19. In another camp 23 people have been tested positive for COVID-19. Human rights organizations have called for the evacuation of Greek refugee camps in the face of the Corona crisis. The conditions in the crowded refugee camps on the Aegean Islands are particularly catastrophic. The majority of tens of thousands of people are staying there in tents and provisional accommodation under plastic sheeting. An outbreak will not be easy to handle in under those circumstances.

- **France:** Sudden increase in the number of infected persons by 39% on the 3rd / 4th April 2020 as a one-off effect due to a change in the counting method (previously only infected persons in hospital were counted). Up to 1 April 2020 over 100 COVID-19 patients from Alsace had been transferred for treatment to Germany, Luxembourg and Switzerland.



- **Germany:** Chancellor Merkel extended the social distancing measures to April 19 and asked not to travel during the Easter holidays. The Robert Koch Institute changed its previous recommendation that only people with symptoms should wear masks to also include people without symptoms. A general obligation to wear masks in public, not supported by the federal government and most regional governments, was discussed. It faced the counter-argument of general shortages of protection gear that could not even guarantee supply for the health care and maintenance system. At least 2,300 of German medical personnel in hospitals were confirmed to have contracted Sars-CoV-2.
- **UK:** On 05 April, Prime Minister, Boris Johnson, had been admitted to hospital as a "precautionary measure" after suffering from symptoms for more than a week with no improvement.
- **Turkey:** On 3 April 2020, President Erdoğan announced a 15-day entry ban to 30 metropolitan municipalities. Also, the curfew was extended to people younger than 20 years old. Using masks in public places became mandatory.^[1]



Source all Graphics: Wikipedia

Infection

- Coronavirus affects the respiratory tract of animals and humans mostly results in a dry cough, fever and cold-like symptoms. Rarely a severe pneumonia and respiratory distress with need of intensive care and consequent death is possible. Estimated 10 -15% of common colds are through to be due to Coronavirus infections, globally.
- It's almost certain that the transmissibility of the Virus occurs also in patients with mild or beginning symptoms. These patients assume themselves as not sick enough to go on sick call and can become a threat for other humans.
- Incubation time of the virus lies between 2-14 (WHO) and 2-12 (ECDC) days. A transmission can also take place during this time.
- COVID-19 infection causes mild disease (i.e. non-pneumonia or mild pneumonia) in about 80% of cases and most cases recover, 14 % have more severe disease and 6% experience critical illness.
- Recovery time for people with mild disease is about two weeks, for people with severe or critical disease three to six weeks.
- Information and technical guidance for Laboratory testing for COVID-19 in humans you could find under: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/laboratory-guidance>
- The virus shows a wide Public Health dimension as especially patients with mild infections can spread the virus unnoticed to contact persons.
- The studies from China shown that the disease is mild in 80% of the cases, most cases recover, 14% develop serious illnesses and 6% of the cases are critical. The latest data from the EU / EEA states indicate that 30% of the cases are hospitalized and 4% require intensive care. Severe courses and fatalities are more common among older patients and those with other chronic illnesses. These risk groups represent most of severe cases and deaths. To date, the measures taken cannot be evaluated regarding transmission or progression. If infected, there is no specific therapy, at most supportive measures, provided the capacities in the health system are available, can improve the outcome.

FACT CHECK: COVID-19 is NOT airborne

The virus that causes COVID-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes, or speaks. These droplets are too heavy to hang in the air. They quickly fall on floors or surfaces.

You can be infected by breathing in the virus if you are within 1 metre of a person who has COVID-19, or by touching a contaminated surface and then touching your eyes, nose or mouth before washing your hands.

To protect yourself, keep at least 1 metre distance from others and disinfect surfaces that are touched frequently. Regularly clean your hands thoroughly and avoid touching your eyes, mouth, and nose.



March 28 2020

COVID-19 IS CONFIRMED AS AIRBORNE AND REMAINS IN THE AIR FOR 8 HRS IN AIR SO IF YOU ARE NOT CAREFUL YOU WILL BE INFECTED EVERYWHERE!!

This message spreading on social media is incorrect. Help stop misinformation. Verify the facts before sharing.

#Coronavirus #COVID19

Characteristics of COVID-19 cases and deaths

Characteristics	n	%	Total records with data available
Cases			
Age in years, median (range)*	50 (1-104)		96530
Sex, male*	49741	52	95401
Travelled*	8481	26	33106
Recovered*	51857	91	56774
Health care workers*	9448	10	91190
Hospitalization*	76267	39	196956
Intensive care unit admission*	9190	5	183280
Deaths			
Age in years, median (range)^	79 (27-100)		8581
Sex, male^	5903	69	8569
At least one underlying condition^	1544	83	1855
• cardiovascular disease	1244	66	1888
• diabetes	551	29	1883
• lung disease	317	17	1855
• renal disease	203	21	977
• malignancy	158	16	977
• neurological disease / dementia	134	13	1056
• other	217	10	2173

Source:

*Case report forms (n=97,320);

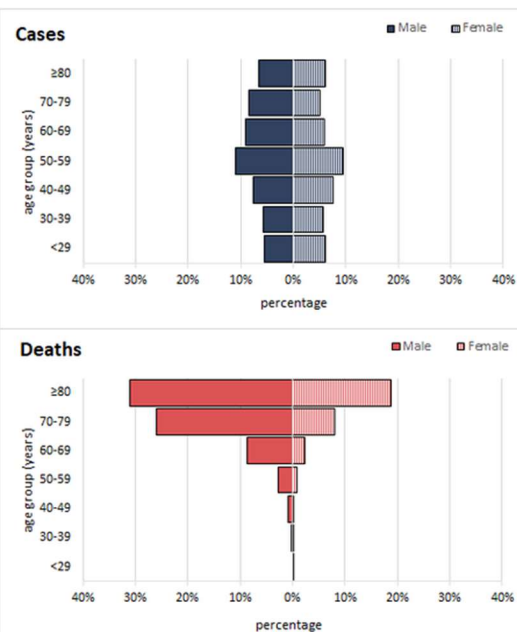
*Case report forms and aggregated data from Italy (26/29 March 2020) and Spain (27 March 2020) (n=222,763); Health care workers refer to occupation and not to the place of exposure

^Case report forms, mortality survey, aggregated data from Italy (26 March 2020) and Spain (27 March 2020) (n=8,585);

Data for European countries.

source: [Weekly surveillance report – COVID-19 WHO Europe](#)

Percentage of COVID-19 cases (N=195,030) and deaths (N=7,521) by age group and sex



COVID-19 – Facts and figures

The ongoing COVID-19 outbreak raises a lot of questions. One of the most often and most important questions is: „Why are there numerous different numbers of cases and various death rates reported and not only a single comprehensive number and which numbers are reflecting the current situation best?“ This information sheet explains the most important aspects which make providing detailed and accurate information on COVID-19 so difficult at the moment. The focus lies on testing people for COVID-19.

What do the published statistics on numbers of cases and deaths tell us and what don't they tell us?

- Number of people tested positive for COVID-19 – not the number of actually infected people. This is also depending on the source (see **Figure 1**). Some sources (e.g. RKI for DEU or WHO) are only counting the number of confirmed cases, whereas others (e.g. Johns Hopkins University) also account for probable cases.
- Number of fatalities: In an ideal world this reflects the total number of people who died from COVID-19. In reality everybody is counted as a “COVID-19 fatality” if he/she tested positive for COVID-19 previously – irrespective of COVID-19 being the reason for the death or not. Assessing the „real“ cause for someone's death (COVID-19 or not) is usually not possible, given the current situation and the heavily challenged health system.
- Case fatality rate (CFR): The share of cases which died from the disease. In an ideal world this reflects the proportion between the number of all people who died from COVID-19 and the number of all people who were infected with COVID-19. In reality **we only know the number of people who tested positive for COVID-19** and not the real number of people that are/have been infected. The CFR we can calculate is therefore not a final number but varies during the course of the outbreak (even within a single country) **Figure 2** shows this exemplarily for various countries. It is driven by the number of tests conducted.

Total confirmed COVID-19 cases, by source, World

Confirmed COVID-19 cases are compared for the three main data sources:
– Johns Hopkins University;
– World Health Organization (WHO) Situation Reports;
– European Centre for Disease Prevention and Control (ECDC)

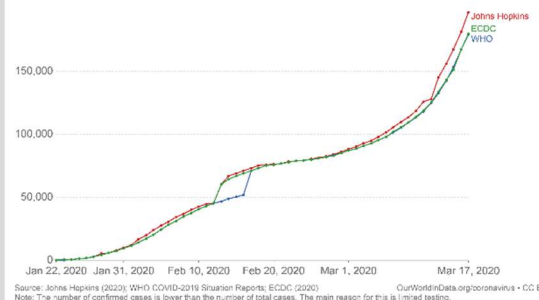


Figure 1: Number of global cases by source

Case fatality rate of the ongoing COVID-19 pandemic

The Case Fatality Rate (CFR) is the ratio between confirmed deaths and confirmed cases. During an outbreak of a pandemic the CFR is a poor measure of the mortality risk of the disease. We explain this in detail at OurWorldinData.org/coronavirus

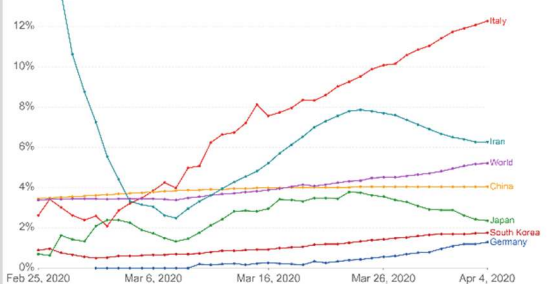


Figure 2: CFR in various countries during the outbreak

Test for COVID-19

There is no international standard/convention for testing (whom to test). Testing behavior can vary within a single country over time.

The most important aspects are:

- Who is tested: Each country issues own criteria to determine whom to test. For example those criteria can be “people showing symptoms”, “probable cases”, “people with reported contact to confirmed cases” or “whole population”. This can be seen as an important reason for the high CFR in Italy: Italy focused on testing old and severely ill people (known for a higher than average CFR).
- Broad availability: Not every country has a sufficient number of test kits available. Therefore the data from different countries always carry an unknown imbalance.

Beispiel Testkapazitäten

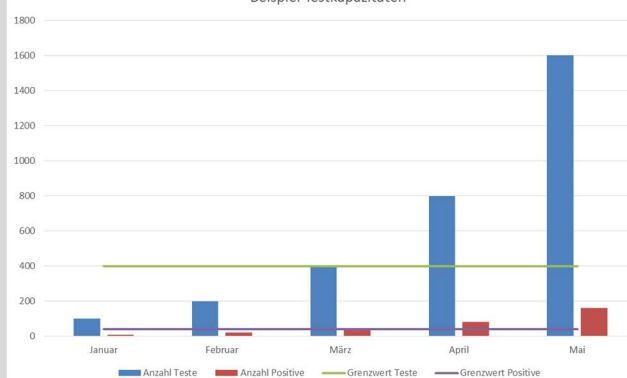


Figure 3: Exemplary illustration of limited laboratory capacities

- Reporting chains: Depending on the reporting chain/route of transmission of information there is a time lag between infection, diagnosis, reporting to public authorities and implementation into official statistics, this can take up to 10 days. Laboratory capacities: The number of conducted tests is limited by the capacities of laboratories charged with analyzing those tests. This limitation is illustrated by **Figure 3** on the right: If laboratory capacity is at analyzing 400 tests per month and 10% of all tests turn out to be positive, we receive accurate numbers as long as the number of tests performed is less than or equal to 400. In this example we receive accurate information on the number of infected (10, 20, 40 respectively) until March. In April the number of performed tests is greater than 400 but the number of positive tests comes to a halt (40 as in March). The real number of infected people is nevertheless still rising but the laboratories are simply unable to analyze all tests. This also holds true in the bigger picture (country level).
- Number of tests per inhabitant: The more tests are conducted within a country the closer the results get to reflecting the real number of infected people. If only a few tests are conducted usually severely affected people are tested and subsequently CFR appears to be high. This is (amongst others) the reason for a high CFR in Iran at outbreak start in figure 1. Broad testing allows to identify cases more easily and implement effective mitigation measures. **Figure 4** details on selected countries.

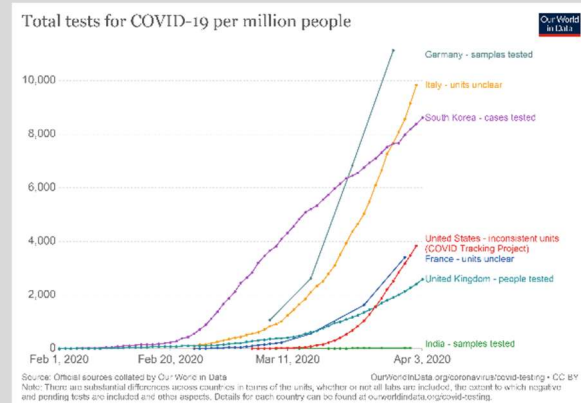


Figure 4: Tests per 1 million inhabitants in various countries

Summary

- The Number of tests conducted and the groups that are mainly tested drive CFR.
- The final CFR can only be determined after the pandemic has ended. During the outbreak CFR can only be estimated and varies according to the circumstances

How long did it take for the number of confirmed cases to double?

For the number of deaths, it is not only important to study the number of cases, but also how they increase over time. Their growth rate.

To report the rate of change we focus on the question: How long did it take for the number of confirmed cases to double?

For instance, if three days ago there had been 5000 cases reported to date in the UK, and today there have been in total of 10000, we would say that the doubling time is three days. To report the rate of change we focus on the question: How long did it take for the number of confirmed cases to double?

Growth in COVID-19 cases, by country

The table down below shows how long it has taken for the number of cases to double in each country. The table also shows the total number of confirmed cases, and the number of daily new confirmed cases and how those numbers had changed over the last 14 days.

Some countries- like China and Korea- have very substantial countermeasures in place, and new daily confirmed cases have declined. Many other countries have been struggling with implementing measures or delayed their implementation. Therefore there had been a decline in case numbers in a very short time. Those differences could be no **Confirmed COVID-19 cases relative to the size of the population**



In addition, it is helpful to compare confirmed cases to the actual country population. For instance, if 1000 cases had been detected in Iceland, out of a population of about 340 000 that would have a far bigger impact than the same number being detected in the USA, with a population of 331 million.

Are cases growing at different rates in different countries

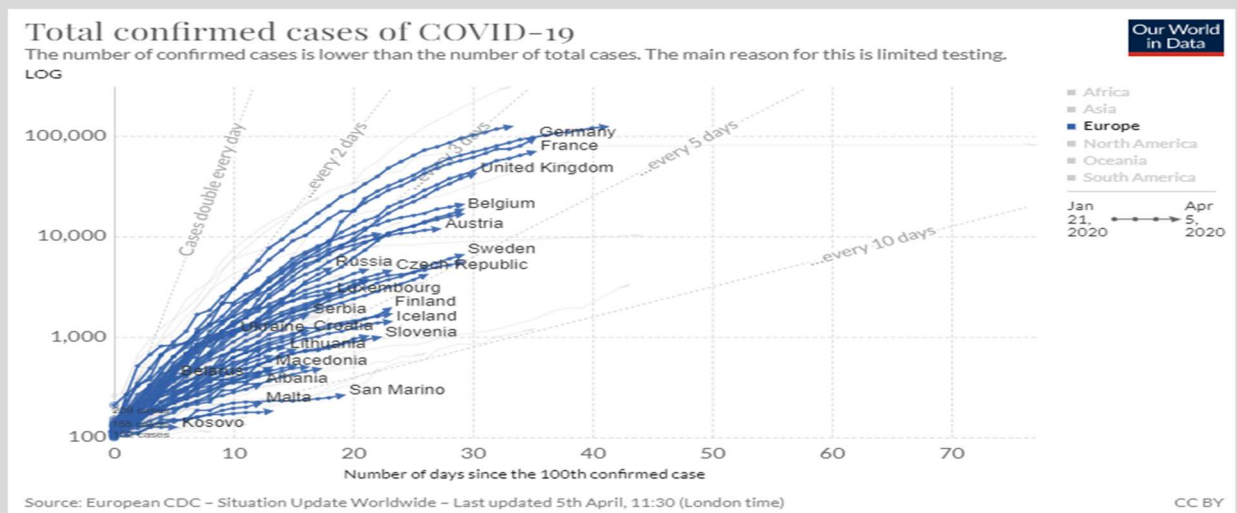
The COVID-19 outbreak started in different countries at different times, and now those countries are at different stages. For instance, on 25 March, Italy had reported 74 386 confirmed cases, while the UK had only reported 8 077. But it would be useful to know whether cases in the UK now are growing faster, slower or at same speed as cases did in Italy when case number were similar.

China had an increase in numbers in a very short time. Just 10 days after the 100 confirmed case the country already confirmed the 10 000th case. Other countries saw a much slower increase, for example in Singapore and Japan.

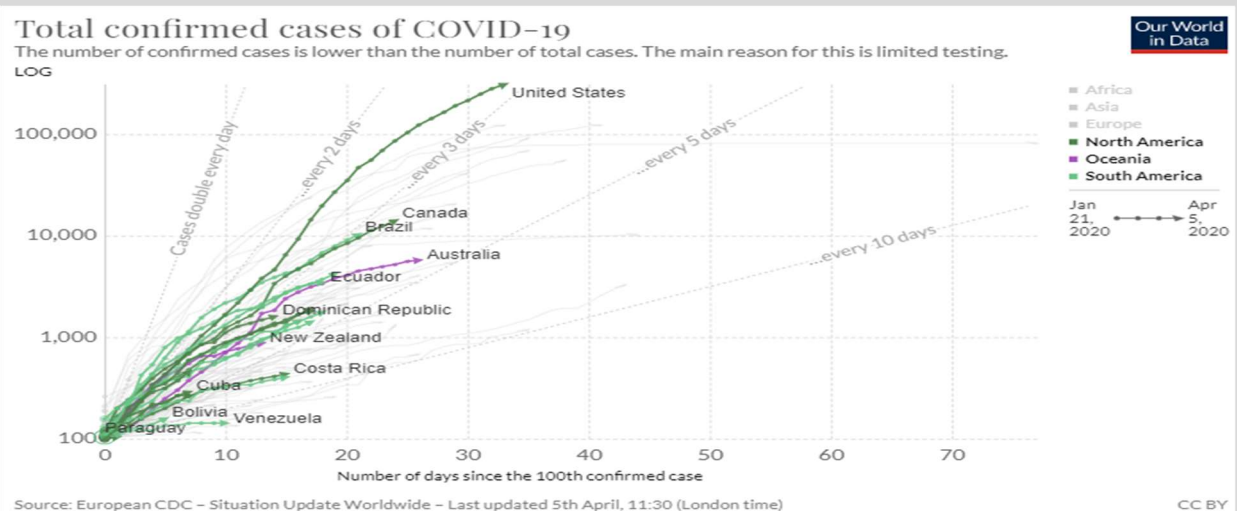
The straight grey lines show trajectories for a doubling time of 2, 3, 5 and 10 days.

We also show the trajectory of confirmed cases adjusted for population size—here presented as the number of confirmed cases per million people. This is shown from the day that a given country reached 1 confirmed case per million people. It is seen by only looking at the global average.

Cases in Europe, have doubled within 2, 3 or 5 days in most EU countries.



In South and North America as well as in Oceania, the confirmed cases doubled within 2 to 4 days.

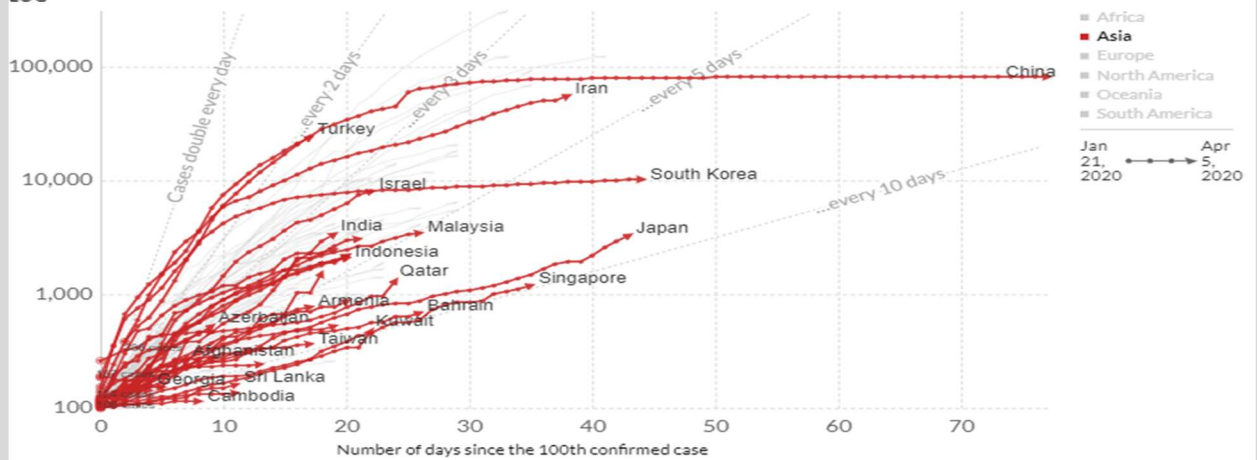


In contrast, Asia partially doubled its number of cases every day.

The trajectory of China and South Korea shows that the speed at which cases rise is not necessarily constant over time. Both countries saw a rapid initial rise but then implemented severe countermeasures, and the trajectory became flatter, meaning that the spread of the diseases has slowed down.

Total confirmed cases of COVID-19

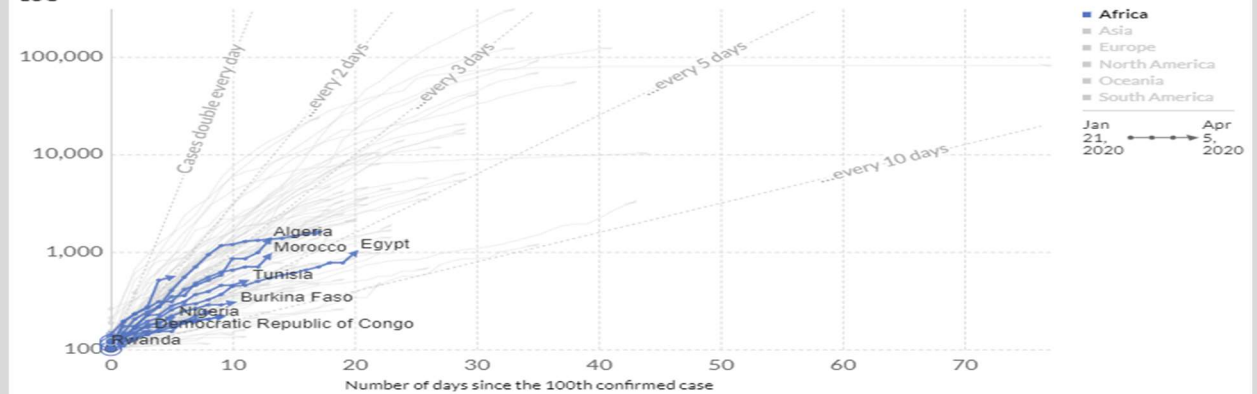
The number of confirmed cases is lower than the number of total cases. The main reason for this is limited testing.



A doubling time of 3 to 5 days and more is registered on the African continent.

Total confirmed cases of COVID-19

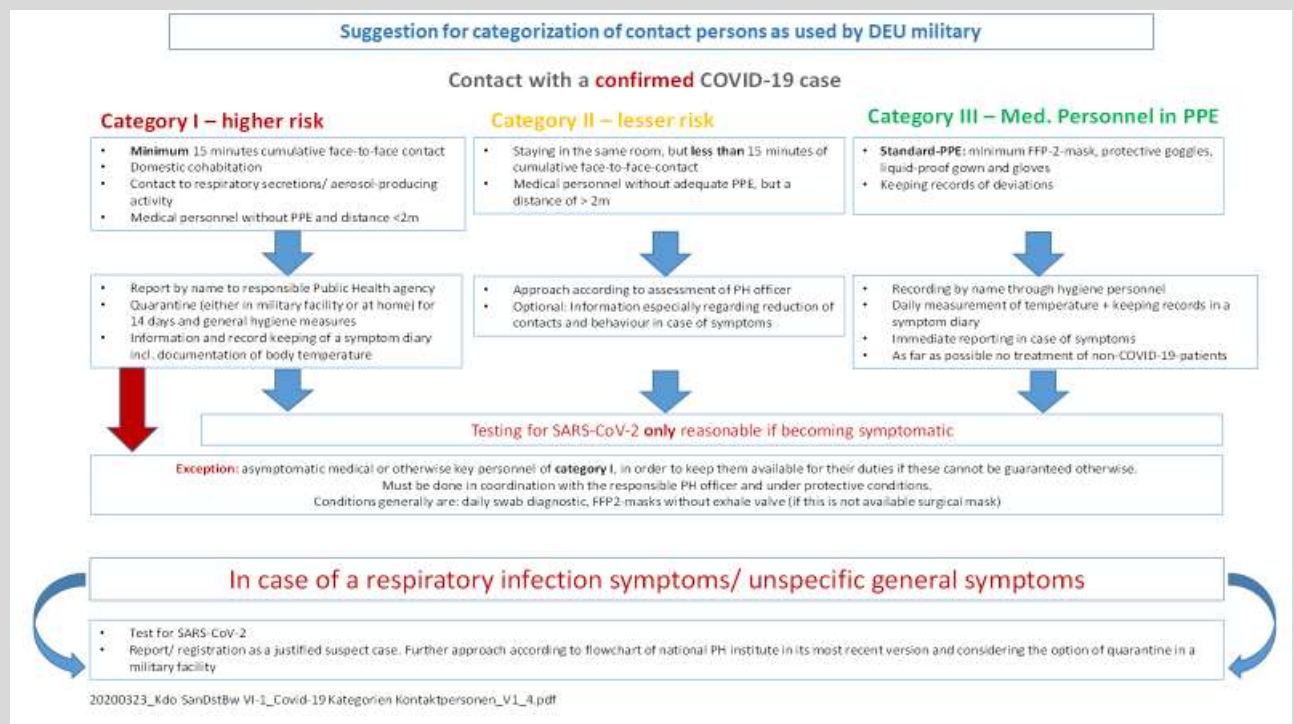
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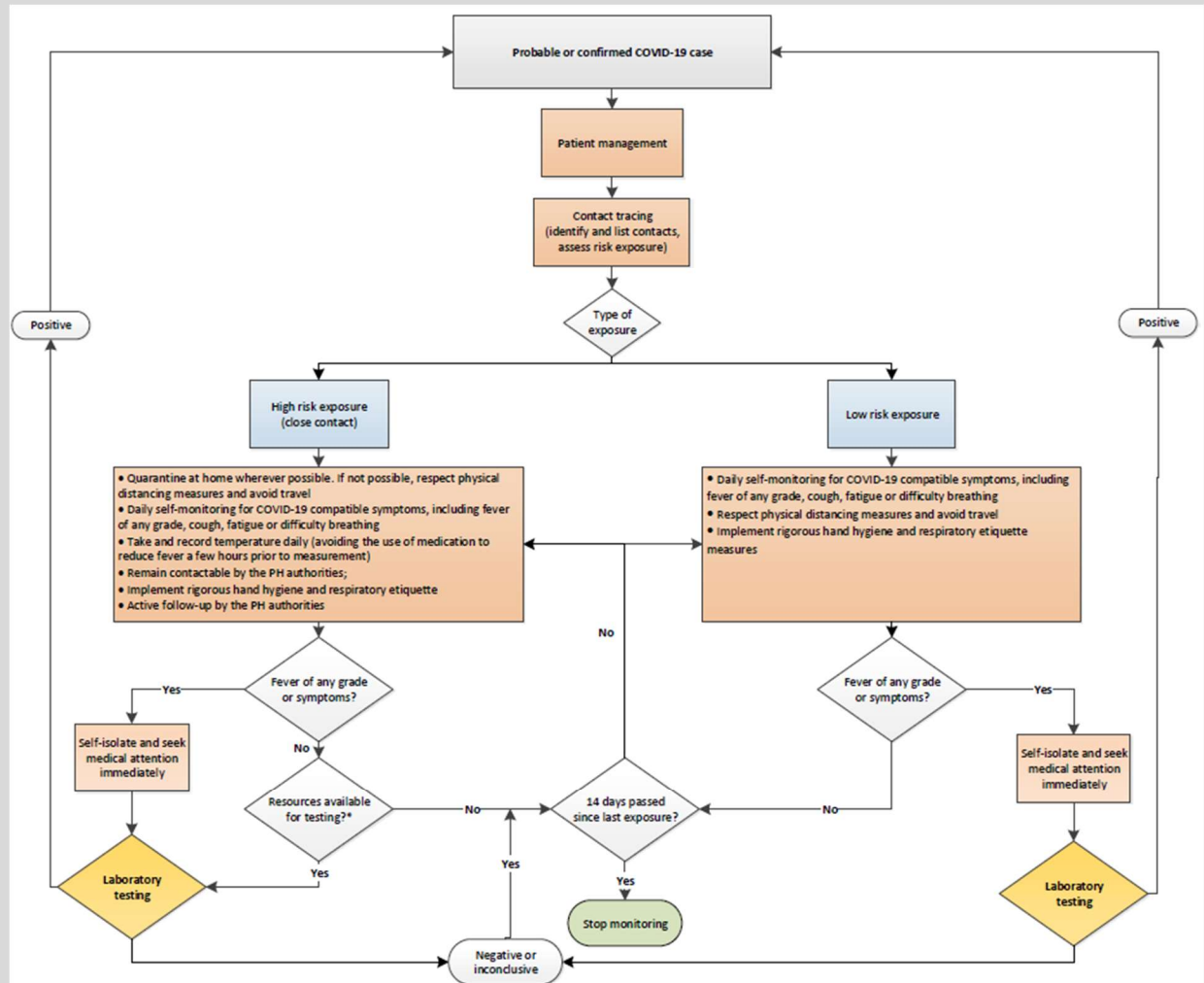
Case definition by WHO

- **Laboratory testing** for COVID-19 should be performed for suspected cases according updated [WHO case definition](#):
- Suspect case**
- A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath), AND a history of travel to or residence in a location reporting community transmission of COVID-19 disease during the 14 days prior to symptom onset.
 - OR
 - A patient with any acute respiratory illness AND having been in contact with a confirmed or probable COVID-19 case (see definition of contact) in the last 14 days prior to symptom onset;
 - OR
 - A patient with severe acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath; AND requiring hospitalization) AND in the absence of an alternative diagnosis that fully explains the clinical presentation.
- Probable case**
- A suspect case for whom testing for the COVID-19 virus is inconclusive.
 - Inconclusive being the result of the test reported by the laboratory.
 - OR
 - A suspect case for whom testing could not be performed for any reason.
- Confirmed case**
- A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.
- Technical guidance for laboratory testing can be found [here](#).
- Definition of contact**
- A contact is a person who experienced any one of the following exposures during the 2 days before and after the onset of symptoms of a probable or confirmed case:
1. Face-to-face contact with a probable or confirmed case within 1 meter and for more than 15 min.
 2. Direct physical contact with a probable or confirmed case;
 3. Direct care for a patient with probable or confirmed COVID-19 disease without using proper personal protective equipment¹; OR
 4. Other situations as indicated by local risk assessments.
- Note: for confirmed asymptomatic cases, the period of contact is measured as the 2 days before through the 14 days after the date on which the sample was taken which led to confirmation.
- The European case definition by ECDC you will find [here](#).

Suggestion of managing contact persons



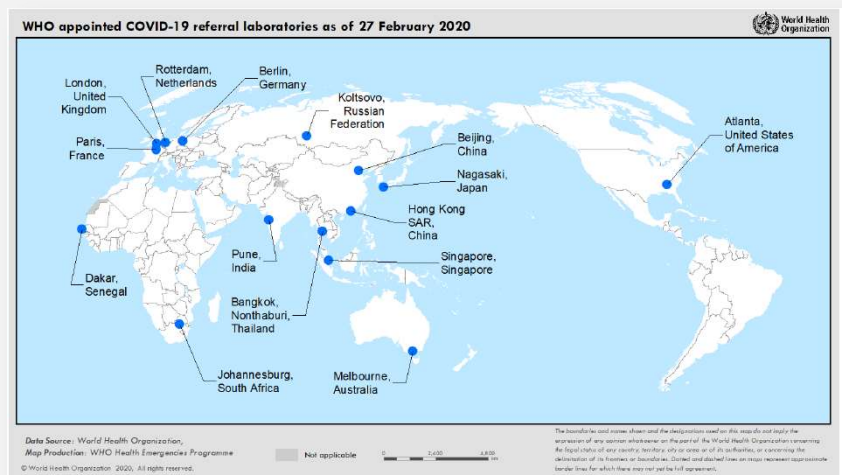
Algorithm for the management of contacts of probable or confirmed COVID-19 cases by ECDC



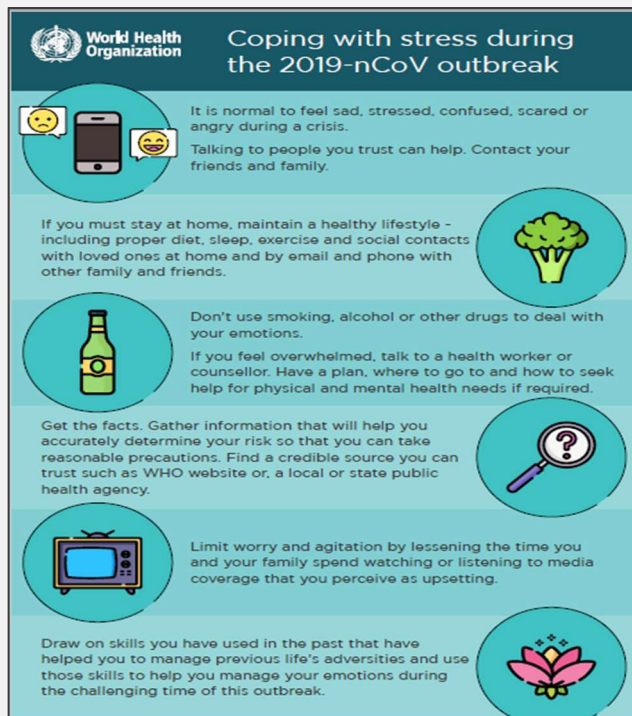
*consider more intensive testing of contacts who are also asymptomatic healthcare workers to guide decisions on the need for absence from work (optimal strategy not yet defined);

Laboratory Network and Detection

- WHO named 16 COVID-19 reference laboratories. These international laboratories can support national labs to confirm the COVID-19 virus.
- WHO procured a commercial assay (ISO:13485) and shipped it to over 150 laboratories globally as an interim measure to strengthen global diagnostic capacity for detection of the virus.
- WHO published guidance ([interim laboratory guidance for detection and interim guidance on biosafety](#)) including advice on sample collection, diagnostic testing, and pathogen characterization for COVID-19, which are continually updated as more data becomes available.
- **Laboratory testing** for COVID-19 should be performed for suspected cases according to the updated [WHO case definition](#).
- Source: WHO „Situation Report – 38 as of 27 February 2020



Strategic	<p>Strategic objectives for response by WHO are:</p> <ul style="list-style-type: none">• Interrupt human-to-human transmission including reducing secondary infections among close contacts and health care workers, preventing transmission amplification events, and preventing further international spread *;• Identify, isolate and care for patients early, including providing optimized care for infected patients;• Identify and reduce transmission from the animal source;• Address crucial unknowns regarding clinical severity, extent of transmission and infection, treatment options, and accelerate the development of diagnostics, therapeutics and vaccines;• Communicate critical risk and event information to all communities and counter misinformation;• Minimize social and economic impact through multisectoral partnerships. <p>*This can be achieved through a combination of public health measures, such as rapid identification, diagnosis and management of the cases, identification and follow up of the contacts, infection prevention and control in health care settings, implementation of health measures for travellers, awareness-raising in the population and risk communication..</p>
Mental health aspects (as an example of the DEU BW)	<p>During a pandemic considerable physical and psychic stress can occur to concerned persons, relatives and personnel. It is necessary to assign a psychosocial clinical emergency care timely, by incorporating all SMEs in this field. An example of the DEU army Mental health center how to cope with the outbreak stress you can find down here.</p> <p>General information on prevention: A pandemic usually puts an increased burden – psychologically and physically – on affected people, their relatives and staff tasked with fighting the disease. Especially with regards to maintaining endurance the scientific community and professional societies (e.g. DIVI and DGPPN) recommend adapting the already established and standardized preclinical processes in the field of psychosocial trauma care to a clinical setting, at least in those hospitals treating patients affected with the pandemic disease. Large hospitals should order staff with relevant training (e.g. psychiatrists, psycho-therapists etc.) as well as staff with related experience (e.g. priests), ideally with experience in palliative care to develop and maintain an easy-to-access, transparent clinical psychosocial emergency concept for the infected, their relatives and medical staff.</p> <p>Home quarantine and self-isolation can have serious psychosocial consequences. There are three critical factors:</p> <ul style="list-style-type: none">- The feeling of (losing) independency- The feeling of connectedness (with others)- The feeling of self-competence (the feeling of something meaningful/effective) <p>In order to prevent such situation or to alleviate their impact on the individual there is some advice to be followed.</p>



thing during a crisis: Feelings like helplessness, fear, anger and inner emptiness can come and go very quickly. In such emotional times no important/life changing decisions should be made.

- **Set goals:** This allows you to regain the feeling of being in control of the situation. The goals need to be achievable and should fit into your overall situation, e.g. keeping a diary, developing new skills, cleaning the flat, completing tasks you tend to postpone.
- **Talk about it:** Talk to your friends, relatives, colleagues and comrades. Sharing your fears and hopes with them helps during a crisis.
- **Stay in touch:** It is very important to maintain social contacts regularly via telephone, messenger apps, video calls and the like. COVID-19 shouldn't be the only topic in those conversations. Take care of your interlocutors, change the topic if you feel the topic is annoying or stressing them.
- **Seek distraction:** Actively distract yourself from the dominating COVID-19 pandemic: Try to have conversations about other topics, read a good book, watch a movie or try to spend time on things you like to do (e.g. a hobby, if possible given the current situation).
- **Allow humor:** "Humor is allowed!" – humor is "battle-proven" against hopelessness. Smiling and laughing often bring relief during stressful situations
- **Stay active:** Complete tasks you usually don't have time for and focus on positive activities, e.g. needlework, cooking or watching a good movie.
- **Do physical exercises:** It is important to stay physically active. Exercising helps to reduce stress levels and increase your wellbeing. WHO recommend 30min per day for adults and 1 hour for children.
- **Maintain your everyday rhythm:** Try to keep your everyday rhythm during this exceptional situation. Get up at a regular time, fulfill your chores and enjoy your free time afterwards. Eat at the same time you would usually eat and try to go to bed at the same time you would usually go to sleep (this is especially important for children).
- **Activate your resources:** Look for things that keep up your mood and think about calming and encouraging sentences you can tell yourself and your family, such as "We'll manage this situation together!" **Don't lose track of your own strengths:** During a crisis focus automatically will be on fears and things that don't work. In order to compensate this and to maintain a positive mentality it is of utmost importance to refocus actively on the things that are working, your strengths and what you have already achieved.
- A WHO guideline on this topic can be found [here](#).

Information of the psychologic service on handling COVID-19

In order to mitigate the spread of COVID-19 (SARS-CoV-2) several measures aiming at implementing social-distancing or even quarantine/self-isolation have been implemented by the governments of most countries. This results in an increasing number of people ordered to stay at home, especially people that are (potentially) infected must stay at home.

Recommendations:

These measures don't leave anybody unaffected. Reducing our social contacts can be burdensome for us. Being as suspect case, the fear of being infected or the disease itself can also negatively impact our psyche. In order to handle this burden, the following is recommended:

- **Access trustworthy information - gain safety:** Frequent information from reliable sources (e.g. public broadcasting, websites of the federal ministries) helps to avoid getting lost in thoughts. Thereby safety in a situation where fear and anxiety are "perfectly normal and understandable" is maintained/regained.
- **Accept your feelings:** Quick and frequent changes of your feelings and emotions are a normal

Public Health measurements

- Social distancing
- Using of masks

Why do we practise „Social Distancing“?

Now

5 Days

30 Days

one Person

infects 2,5 persons

infects 406 persons

50% less contact

one person

infects 1,25 person

infects 15 persons

75% less contact

one person

infects 0.625 persons

infects 2,5 persons

Social Distancing

- Avoid gatherings or meetings with many people. Use online conference facilities, VTC, conference calls, e-mail, phone calls within the same building as well as Home Office as far as possible.
- Unavoidable personal meetings should be kept brief and take place in a sufficiently large, well-ventilated room that allows you to keep your distance. Avoid handshakes – a smile connects.
- Cancel unnecessary travel and postpone meetings that are not essential.
- Do not stay longer than necessary in social rooms such as kitchens or common rooms. Keep your distance from others.
- Bring your own meals to work and eat them at your desk.
- Avoid public transportation. Instead, walk, use the bike or your own car. Avoid the "rush hours" by starting or stopping work early.
- Restrict your off-duty activities: e.g. no mass events, concerts, course participation, fitness studios or cinemas. Support high-risk patients in order to minimize their social contacts (shopping, etc.).

To wear or not to wear? That has become the key question during the pandemic as the face mask has become a symbol of our changed lives under coronavirus.

Key to remember, say WHO officials, is that coronavirus is spread by droplets and not airborne transmission. "The most likely person to become a case is someone who has been in significant contact of another case".

WHO still don't recommend mask wearing by the general public. "We don't generally recommend the wearing of masks in public by otherwise well individuals because it has not up to now been associated with any particular benefit,".

ECDC stated: "The use of surgical face masks decreases the risk of infecting others when worn by a person with respiratory symptoms before seeking medical advice and while being assessed, until isolation. There is no evidence on the usefulness of face masks worn by persons who are not ill to prevent infection from COVID-19, therefore this is not advisable. It is possible that the use of facemasks by untrained people may even increase the risk of infection due to a false sense of security, inappropriate use of the mask, and increased contact between hands, mouth and eyes without

When to use a mask

1

If you are healthy, you only need to wear a mask if you are taking care of a person with suspected 2019-nCoV infection

2

Wear a mask if you are coughing or sneezing

3

Masks are effective only when used in combination with frequent hand-washing with alcohol-based hand rub or soap and water

4

If you wear a mask then you must know how to use it and dispose of it properly

and washing. In addition, in view of scenario 4 (see document), reserving PPE for use by healthcare workers should be a priority.”

Recommendations/orders differ from country to country. The US Surgeon General pleaded with the public in February to stop buying masks, while countries such as South Korea and Japan distributed them to the public. Recently the Czech Republic, Slovakia and Austria even made them mandatory. [CDC recommends](#) wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain (e.g., grocery stores and pharmacies), **especially** in areas of significant community-based transmission. See link [here](#).

Who should wear a mask:

- **Those who are sick.** WHO officials recommended those infected with the COVID-19 coronavirus to wear masks to prevent spreading it to someone else.
- **Those who are home caregivers for those who are sick.** People caring for the sick should wear masks to protect themselves and to prevent further transmission throughout a family unit.
- **Those who are frontline healthcare workers.** Right now the people most at risk from this virus are frontline health workers who are exposed to the virus "every second of every day", WHO also said.

Why is it still not recommended by WHO?

- There is no scientific proof that wearing a mask as a healthy person helps you from not getting sick.
- Wearing a mask can provide a false sense of security, leading some to become less vigilant in more important hygiene measures, such as hand washing. Additionally, removing a mask so it no longer covers your nose, or touching the outside of the mask can make it less effective.
- The global shortage of personal protection equipment underscored the need to carefully deploy masks where they would do the most good.

World Health Organization officials helped clarify how they recommend masks can best be deployed at a briefing on 30 March. The entire press conference you will find [here](#).

WHO advice for the public: When and how to use masks you will find [here](#).

Source: [World Economic Forum](#); CDC and ECDC

Information from the German Federal Institute for Drugs and Medical Devices (BfArM) on the use of self-made masks (so-called “community masks”), medical mouth and nose protection (MNS) and filtering half masks (FFP2 and FFP3) in connection with the coronavirus (SARS-CoV-2 / Covid- 19):

The Federal Institute for Drugs and Medical Devices (BfArM) once again officially comments on the do-it-yourself or community masks.

Users of these masks should not rely on them protecting themselves or other people from infection.

1. DIY masks should only be used for private use.
2. The usual hygiene regulations must continue to be observed.
3. The recommended safety distance of at least 1.50 m from other people should also be observed with DIY mask.
4. A moisturized mask should be removed immediately and replaced if necessary.

The DEU BfArM recommendation for Do it Yourself masks you can find [here](#).

The DEU Medical Headquarters recommendation on reprocessing of FFP masks:

Due to the current shortage of PPE for the military hospitals, the reprocessing of FFP masks that are actually only approved for single use can be carried out. This procedure is only used in the current shortage situation and only if there is actually a shortage on site. For this purpose, it must be checked in-house which of the methods mentioned can be technically implemented using the resources available there.

According to of the present publications:

- Steam sterilization at 121 ° C / 20 min (only for FFP masks without exhalation valve, only one preparation cycle)
- Steam sterilization at 134 ° C / 5 min is also possible, but this procedure puts more strain on the rubber band, but this could possibly be readjusted (only for FFP masks without exhalation valve, only one reprocessing cycle)
- Steam disinfection at 105 ° C / 5 min, e.g. in the mattress disinfection system or using a corresponding program in the steam sterilizer (only for FFP masks without exhalation valve, only one reprocessing cycle)
- Plasma sterilization, important: no cellulose (e.g. paper lettering) may be added to the process, nor may the mask contain cellulose (also possible for FFP masks with exhalation valve, maximum reprocessing twice)

- Ethylene oxide sterilization process (EO process) (also possible for FFP masks with exhalation valve, maximum two reprocessing)
- Immersion disinfection in 70% isopropanol, exposure time 30 seconds with subsequent complete drying (effective range "limited virucidal" for isopropanol 70 vol.%) (Also possible for FFP masks with exhalation valve, only one preparation cycle).

The general rule:

Personal reuse must be ensured in any case.

Visibly dirty or damaged masks must not be reprocessed.

Decontamination and Reuse of Filtering Facepiece Respirators by CDC see [here](#).

Understanding the Difference



Surgical Mask



N95 Respirator

Testing and Approval

Cleared by the U.S. Food and Drug Administration (FDA)

Evaluated, tested, and approved by NIOSH as per the requirements in 42 CFR Part 84

Intended Use and Purpose

Fluid resistant and provides the wearer protection against large droplets, splashes, or sprays of bodily or other hazardous fluids. Protects the patient from the wearer's respiratory emissions.

Reduces wearer's exposure to particles including small particle aerosols and large droplets (**only non-oil aerosols**).

Face Seal Fit

Loose-fitting

Tight-fitting

Fit Testing Requirement

No

Yes

User Seal Check Requirement

No

Yes. Required each time the respirator is donned (put on)

Filtration

Does NOT provide the wearer with a reliable level of protection from inhaling smaller airborne particles and is not considered respiratory protection

Filters out at least 95% of airborne particles including large and small particles

Leakage

Leakage occurs around the edge of the mask when user inhales

When properly fitted and donned, minimal leakage occurs around edges of the respirator when user inhales

Use Limitations

Disposable. Discard after each patient encounter.

Ideally should be discarded after each patient encounter and after aerosol-generating procedures. It should also be discarded when it becomes damaged or deformed; no longer forms an effective seal to the face; becomes wet or visibly dirty; breathing becomes difficult; or if it becomes contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients.



Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

➡ Recommendations	
Recommendation for international business travellers	<p><u>In the case of non-deferrable trips, please note the following</u></p> <ul style="list-style-type: none"> • Many airlines have suspended inbound and outbound flights to affected countries. Contact the relevant airline for up-to-date information on flight schedules. • Check your national foreign office advices for regulations of the countries you´re traveling or regulations concerning your country. • Information's about the latest travel regulations you can find at IATA and International SOS. <p><u>Most countries implemented strikt rules of contact reduction:</u></p> <ul style="list-style-type: none"> • Everyone is urged to reduce contacts with other people outside the members of their own household to an absolutely necessary minimum. • In public, a minimum distance of 1.5 m must be maintained wherever possible. • Staying in the public space is only permitted alone, with another person not living in the household or in the company of members of the own household (for most countries, please check bevor traveling). • Follow the instructions of the local authorities. <p>General recommendations for personal hygiene, cough etiquette and keeping a distance of at least one metre from persons showing symptoms remain particularly important for all travellers. These include:</p> <ul style="list-style-type: none"> • Perform hand hygiene frequently. Hand hygiene includes either cleaning hands with soap and water or with an alcohol-based hand rub. Alcohol-based hand rubs are preferred if hands are not visibly soiled; wash hands with soap and water when they are visibly soiled; • Cover your nose and mouth with a flexed elbow or paper tissue when coughing or sneezing and disposing immediately of the tissue and performing hand hygiene; • Refrain from touching mouth and nose; See also: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public • <u>A medical mask is not required if exhibiting no symptoms, as there is no evidence that wearing a mask – of any type – protects non-sick persons.</u> If masks are to be worn, it is critical to follow best practices on how to wear, remove and dispose of them and on hand hygiene after removal. • WHO information for people who are in or have recently visited (past 14 days) areas where COVID-19 is spreading, you will find here. <p>People returning from affected areas (= countries, provinces, territories or cities experiencing ongoing transmission of COVID-19, in contrast to areas reporting only imported cases) should self-monitor for symptoms for 14 days and follow national protocols of receiving countries. Some countries may require returning travellers to enter quarantine. If symptoms occur, such as fever, or cough or difficulty breathing, persons are advised to contact local health care providers, preferably by phone, and inform them of their symptoms and their travel history.</p> <p>Source: WHO</p>
EU recommendations	The European Commission released a guideline with “EU recommendations for testing strategies” and “EU recommendations for community measures”. The first document talks about whom to test in the EU and the Do and Don´t. The latter give a guiding when to initiate and when to end community measures as well talks about social distancing and infection and control measures and when to introduce lockdown measures.
US recommendations	United States Department of Defence released a guideline with COVID-19 practice Management for Clinical management of COVID-19 find here .

Risk Assessment

Global	<ul style="list-style-type: none">• Because of global spread and the human-to-human transmission the high risk of further transmission persists.• Travellers are in high risk for infection worldwide. It is highly recommended to avoid all unnecessary travel for the next weeks.• Individual risk is dependent on exposure.• National regulation regarding travel restrictions, flight operation and screening for single countries you will find here.• Official IATA changed their travel documents with new travel restrictions. You will find the documents here.• Public health and healthcare systems are in high vulnerability as they already become overloaded in some areas with elevated rates of hospitalizations and deaths. Other critical infrastructure, such as law enforcement, emergency medical services, and transportation industry may also be affected. Health care providers and hospitals may be overwhelmed.• Appropriate to the global trend of transmission of SARS-CoV-2 an extensive circulation of the virus is expectable. At this moment of time, asymptomatic persons as well as infected but not sickened persons could be a source of spreading the virus. Therefore, no certain disease free area could be named globally.
Europe	<p>ECDC assessment for EU/EEA, UK:</p> <ul style="list-style-type: none">• Risk for severe disease associated with COVID-19 infection: currently considered moderate for the general population and very high for older adults and individuals with chronic underlying conditions.• Risk of occurrence of widespread national community transmission: is moderate if effective mitigation measures are in place, and very high if insufficient mitigation measures are in place..• Risk of healthcare system capacity being exceeded: considered high in the coming weeks.

References:

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