



Update 15 (14th of April 2020)

Information about Infection disease COVID-19 (novel coronavirus)



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

14th 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

- The total global deaths from COVID-19 has surpassed 100 000 as of 12 April.
- One new country/territory/area reported cases of COVID-19 over the weekend: Yemen.
- **WHO remarks:** There is no evidence that the Bacille Calmette-Guérin vaccine (BCG) protects people against infection with COVID-19 virus. Two clinical trials addressing this question are underway, and WHO will evaluate the evidence when it is available. In the absence of evidence, WHO does not recommend BCG vaccination for the prevention of COVID-19. For more details, please see [here](#).
- **WHO** has published a document 'Target Product Profiles for COVID-19 Vaccines'. The document describes the preferred and minimally acceptable profiles for human vaccines for long term protection of persons at high risk of COVID-19 infection, such as healthcare workers; and for reactive use in outbreak settings. For more details, please see [here](#).
- **UN remarks:** "The weaknesses and lack of preparedness exposed by this pandemic provide a window onto how a bio-terrorist attack might unfold - and may increase its risks. Non-state groups could gain access to virulent strains that could pose similar devastation to societies around the globe,"
- Infection with the coronavirus can not only manifest itself with a fever, cough and difficulty breathing, but can also cause neurological symptoms. Nearly 1/3 of the 214 examined Wuhan patients showed signs that the virus had damaged the nervous system. The most common symptoms included dizziness and headache, as well as olfactory and taste disorders.
- **Special Adviser to WHO's Director-General**, highlighted the need for countries to understand that the virus can overwhelm even the most robust health systems, resulting in the need to entirely reconfigure health sectors in response.
- **WHO** has developed a definition for reporting COVID deaths, please find it under case definition in this document.

GLOBALLY

1 882 282
confirmed cases

119 686 death

EU/EEA and the UK

930 001
confirmed cases

81 293 death

ASIA & West Pacific Region

141 218
confirmed cases
5 044 death

America's Region

696 831
confirmed cases
27 589 death

Eastern Mediterranean Region

103 576
confirmed cases
5 253 death

Africa

10 656
confirmed cases
507 death

Find articles and other materials at

<https://www.coemed.org/resources/COVID19>

Risk Assessment

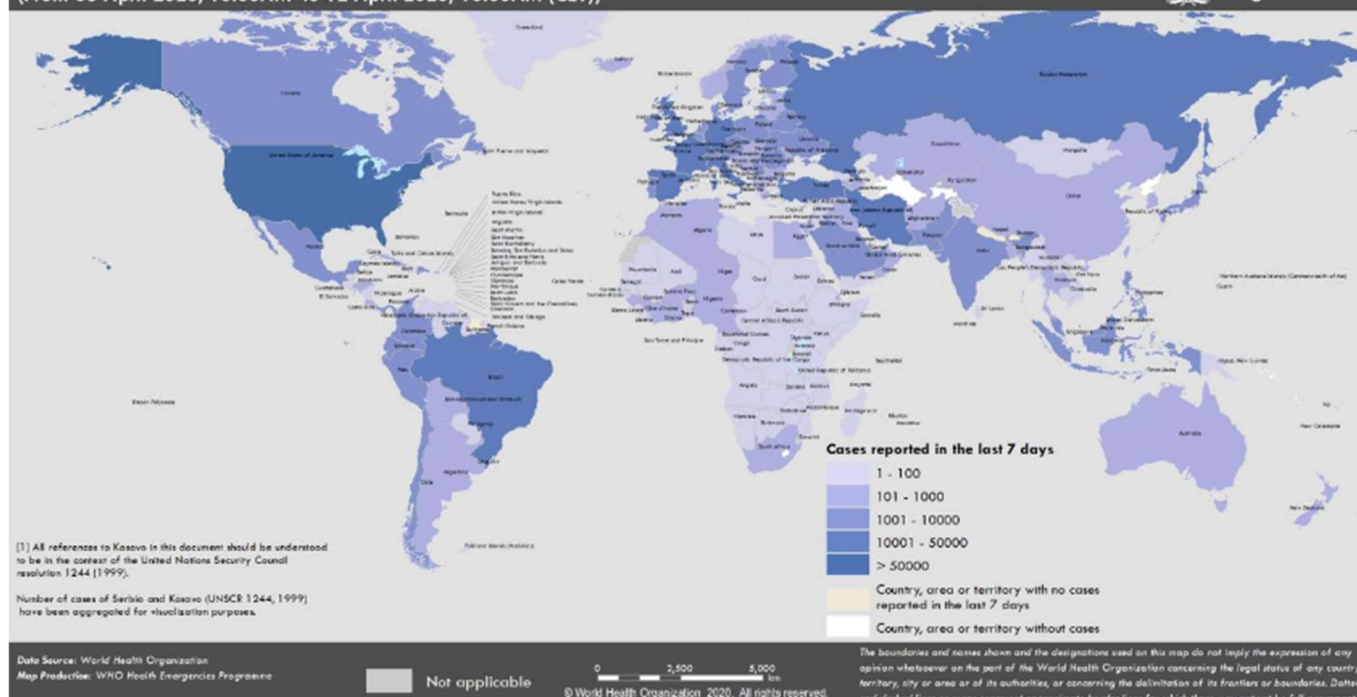
EUROPE

- * 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.

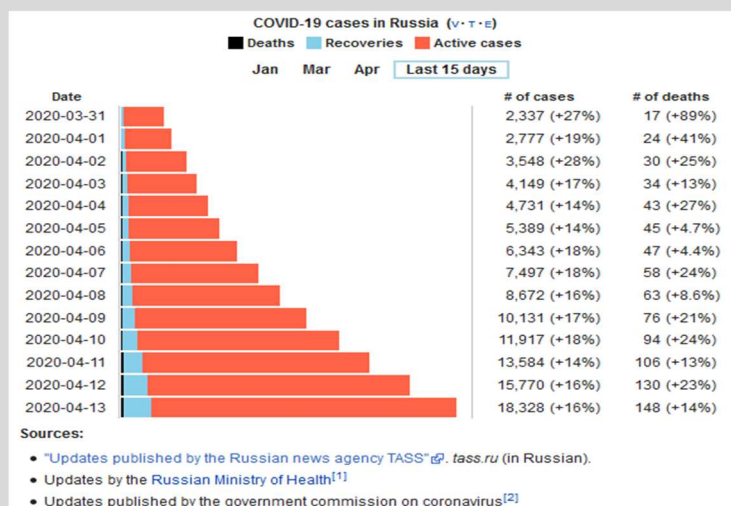
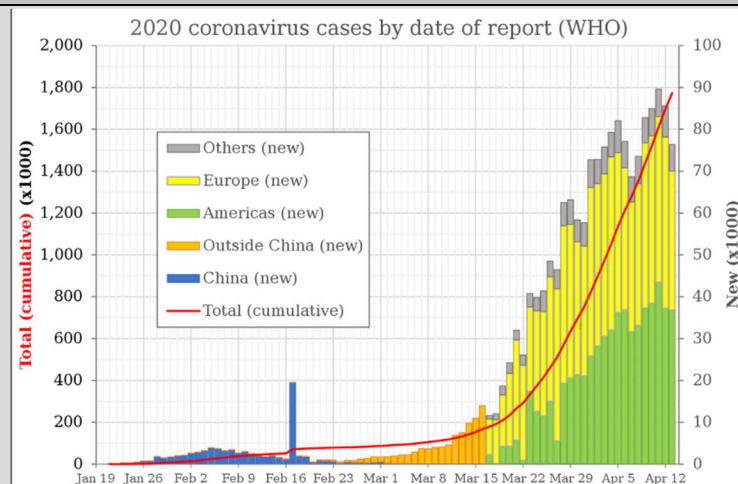
Countries, areas or territories with COVID-19 cases reported in the last 7 days (From 06 April 2020, 10:00AM to 12 April 2020, 10:00AM (CET))



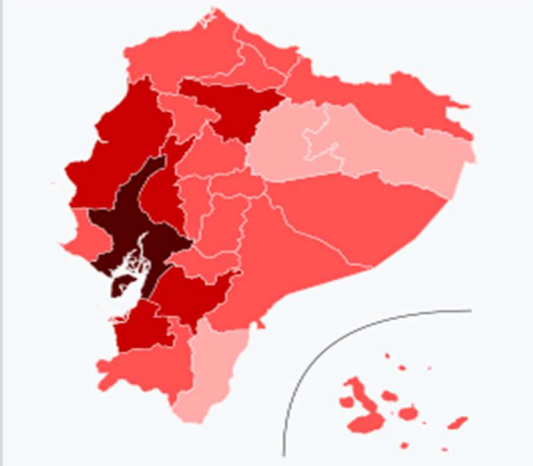
Bullet Points

Global Situation

- All states in Europe and most of the countries globally are already affected.
- The death toll continues to rise: the world now has over 119,000 deaths due to the coronavirus pandemic. The new pathogen Sars-CoV-2 hit the US, Spain and Italy worst.
- **South Korea:** More re-infections with COVID-19 in already recovered patients have been reported. The number of these cases has increased to 116. None of the patients who tested positive for Sars-CoV-2 a second time have been shown to have infected another person.
- **CHN:** Schools in China could start teaching again by the end of April. If there are no new major outbreaks, schools can be reopened. Except for the specially protected capital Beijing and the severely affected province of Hubei, all provinces and metropolises have already announced concrete plans to start school again in the next few weeks.
- **USA:** The United States has again the highest number of deaths worldwide as a result of infection with the Sars-CoV-2 coronavirus. They reports more than 500,000 infected and over 2,000 dead within 24 hours. For the first time, there is a state of emergency in all 50 states.
- **RUS:** Since March 30, all citizens in Moscow, with a few exceptions from certain professional groups, have been called to stay in their homes. By April 13, 2020, the number of tests performed on the novel corona virus in Russia was 1,300,000. As of April 15, digital approval for travel by all modes of transport will be required in Moscow and Moscow Oblast. The government fears an increase in the number of seriously ill corona patients. The country had to prepare for worst-case scenarios. In a conference call, Putin urged officials to be prepared to move medical personnel and equipment between regions to respond to the rapidly changing situation. Preparations would have to anticipate "all possible scenarios, including the most difficult and most unusual". He also ordered additional staff from universities and medical schools to be hired. Russia has reported 18,328 Sars CoV-2 cases and 148 deaths. Deputy Prime Minister Tatyana Golikova said the number of infections increased steadily by 16 to 18% per day.



2020 coronavirus pandemic in Ecuador



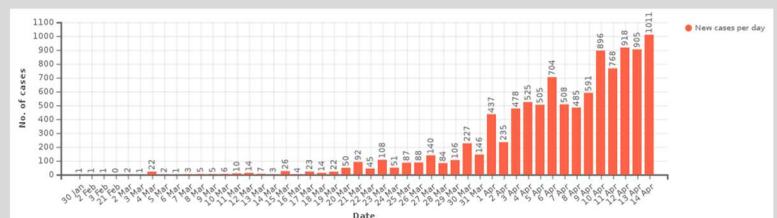
IND: Strict curfew for 1.3 billion people: The consequences for the poorest are dramatic. Now some branches of industry should resume production, e.g. in the automotive and textile industries as well as in companies that are important for the defence of the country - at least in part and under stricter hygiene regulations.

SGN: 386 further corona infections were confirmed within 24 hours - the largest increase in one day so far. Many sick people lived in dormitories for migrant workers.

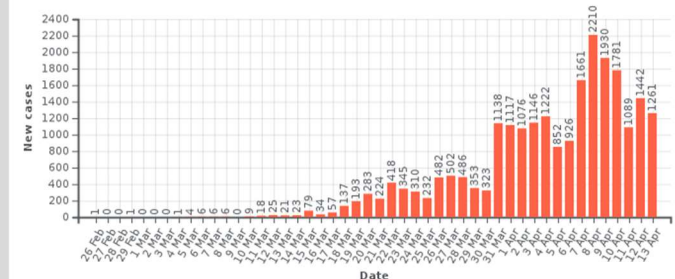
BRA: A study on the treatment of coronavirus infections with "chloroquine" has been partially stopped. Scientists had tested the malaria drug for its effectiveness against COVID-19. It has long been known that it can have serious side effects, including a change in heartbeat that can lead to sudden death. The study, which was carried out in the city of Manaus, Brazil, was planned to test chloroquine in two doses on 440 seriously ill COVID-19 patients. The researchers published results after 81 patients had been treated with the preparation. A quarter of the patients who were given 600 milligrams twice a day for ten days developed heart rhythm problems. The trend indicated that there were more deaths in this group, so the scientists stopped this part of the study. The patients in the second group received 450 milligrams twice on the first day and then once each dose for four days. It is still unclear whether this proves to be safe and effective.

ECU: Police and military officers in Ecuador have pulled nearly 800 bodies from homes in the city of Guayaquil, which has been particularly hard hit by the coronavirus pandemic, in the past three weeks. According to official information, 4,000 from 7,500 cases of infection were reported from the port city in southern Ecuador. Hospitals and funeral services are overwhelmed by the virus outbreak.

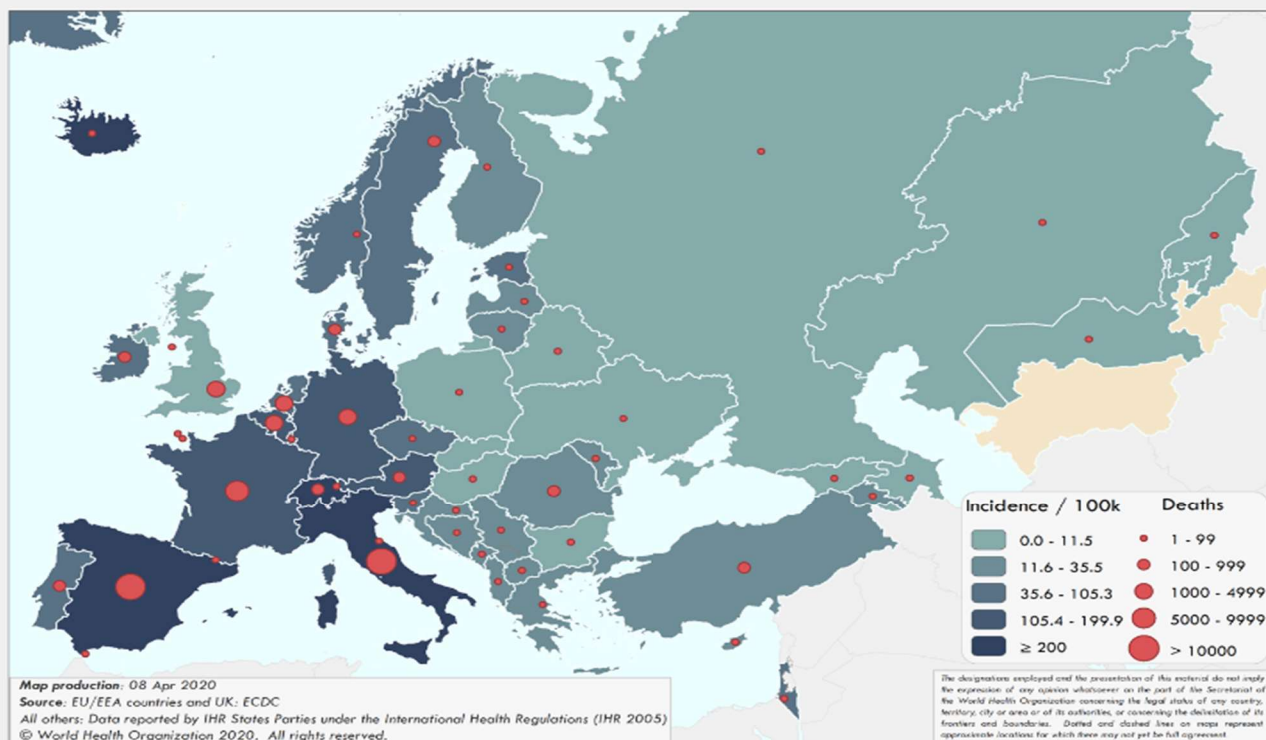
A further 631 bodies were taken away from hospitals by the special unit, whose mortuaries were full.



New cases per day



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

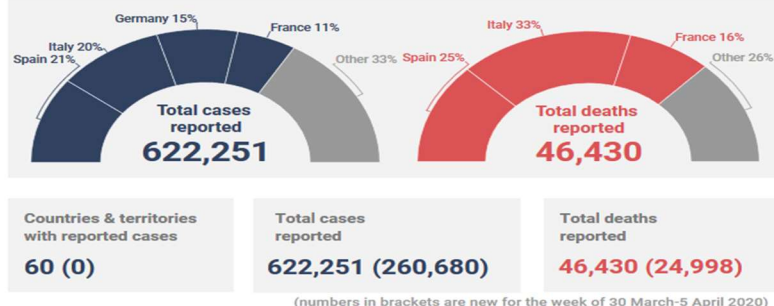


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COVID-19 situation update for the WHO European Region (30 March – 01 April 2020 Epi week 14)

Key points

- The number of cases reported in the European Region doubled compared to Epi week 13/2020
- 67% of the cases were reported from Italy, Spain, Germany and France
- 75% of the deaths were reported from Spain, Italy, and France
- Nine countries and territories reported a cumulative incidence >200/100,000 population
- One out of 13 reported infections with information available was in a health care worker
- 95% of deaths were in persons aged 60 years and older and 68% of all deaths were in males
- 91% of deaths with information available had at least one underlying condition
- There was a steep increase in the pooled excess all-cause mortality in 24 countries and regions primarily in the age group >65 years, but also in the 15-64 years age group for week 14/2020 (see [European Mortality Bulletin](#))
- In Epi week 14/2020, the percentage of COVID-19 detections in persons with influenza-like illness in the primary care setting was 1% (3 countries) compared to 6% in Epi week 13/2020 (6 countries)



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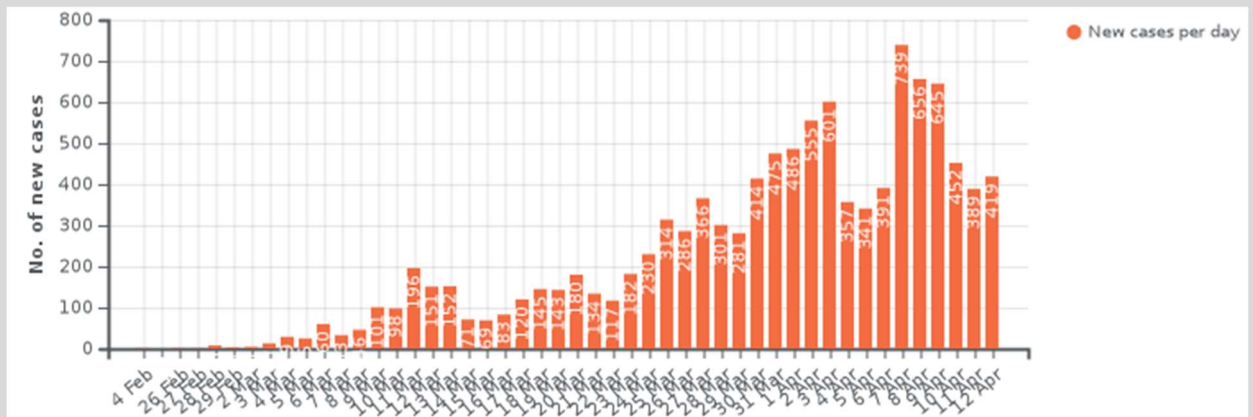
68%
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Spain and Switzerland reported the highest case numbers per head of population so far. All countries with exit permission and/or curfew meanwhile show a slow down in dissemination of COVID-19.

- **ESP:** reported the lowest fatality rate since 23 March
- **SWE:** In Sweden, more than 10,000 infections with the novel corona virus have now been detected. This emerges from figures released by the Swedish health authority on Saturday afternoon. 887 people with Covid-19 disease have thus far died in the Scandinavian EU country, including more than 500 in the region around the capital Stockholm alone.

This means that Sweden has had the highest number of infections and deaths in Scandinavia so far - however, based on its population of around 10.3 million people, the country is by far the largest in the region.

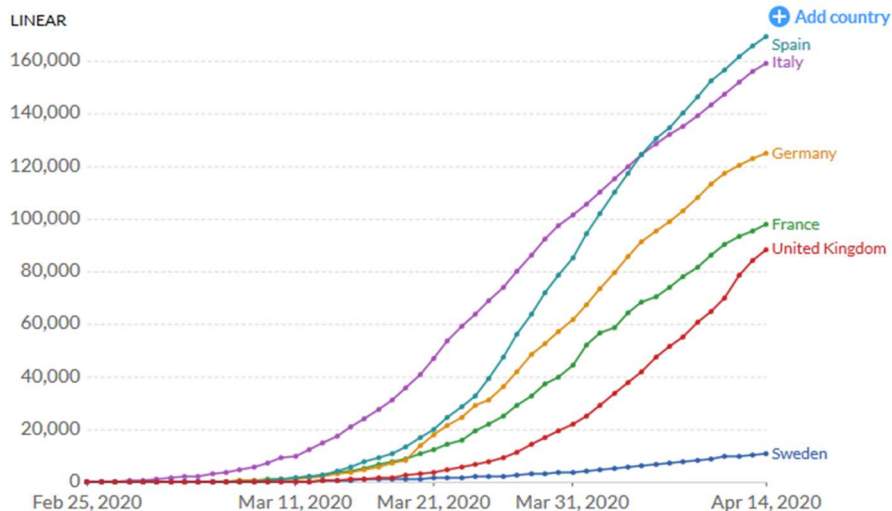
In contrast to the neighboring countries, the Swedish government is pursuing a far more liberal strategy in the fight against the spread of the Sars-CoV-2 virus: The Swedes are allowed to continue in restaurants and cafés, schools and kindergartens are still open. Public gatherings are only prohibited for more than 50 people.



- **ITA:** Italy's civil defense registered 431 corona deaths within 24 hours on Easter Sunday. The increase had not been so low in a long time. The total number of infected rose moderately to 156,363 cases (plus more than 4,000). An expert explained that Italy has recently increased the number of smears. This plays a role here. Overall, there are still positive signals. Over 34,000 people are now considered to have recovered.
- **GBR:** On 11 April first time more fatalities per one day reported than in Italy. The daily mortality rate in the UK is still higher than in most other countries.
- **TUR:** The curfew for 31 cities announced by TUR Interior Minister Süleyman Soylu late Friday evening with just two hours' notice has symbolized the tense domestic political situation in the wake of the COVID-19 crisis, which has hit the economically already badly hit country and its metropolises hard and provinces started. The announcement resulted in panic buying and gathering of people in the affected regions.

Confirmed COVID-19 cases

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



Source: European CDC - Situation Update Worldwide - Last updated 14th April, 11:00 (London time)

CC BY

► Dec 31, 2019 ◀ Apr 14, 2020

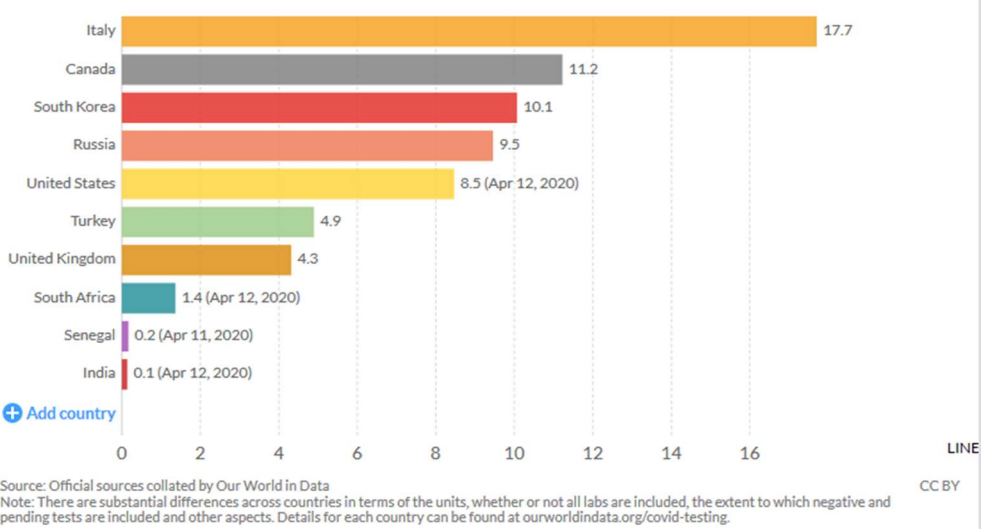
Source all Graphics: Wikipedia and Our world in data

Testing coverage

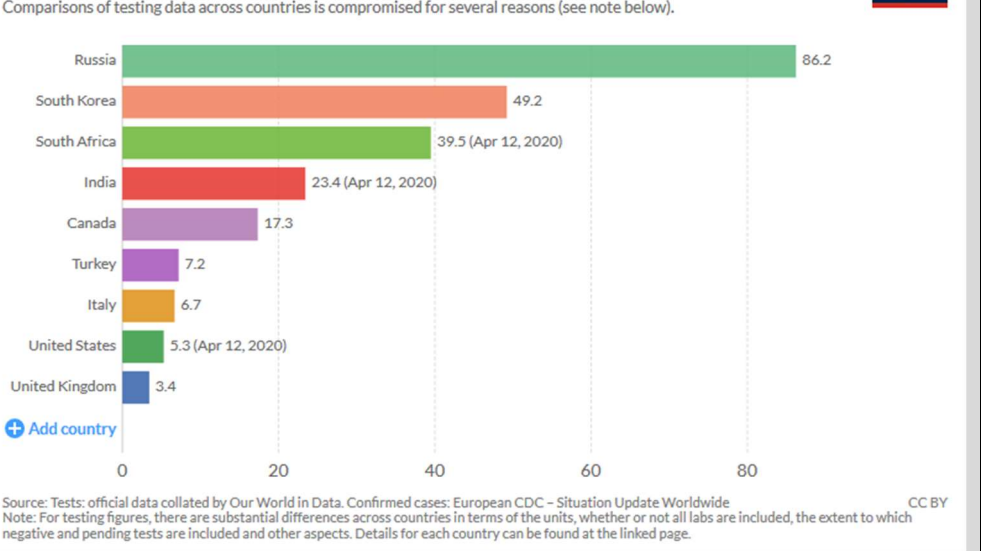
The chart here shows a measure of testing coverage – tests per thousand people. Countries are reporting testing data in different ways: some report the number of tests, others report the number of people tested. This distinction is important – people may be tested many times, and the number of tests a person has is likely to vary across countries. Across different countries, we see an enormous range in testing coverage. In Iceland there have been more than 100 tests per thousand people – far more than in any other country. In Indonesia, testing coverage is very low – only 0,1 tests per thousand people. Generally we would expect that more testing means more reliable data on confirmed cases, for two reasons. Firstly, a greater degree of testing provides us with a larger sample of people for which their infection status is known. If everybody was tested, we would know the true number of people who are infected. Secondly, It may be the case that countries with a high capacity for testing do not need to ration tests as much. Where the capacity for testing is low, tests may be reserved for particularly high-risk groups. Such rationing is one of the reasons that tested people are not representative of the wider population. As such, where testing coverage is higher, the sample of tested people may provide a less biased idea of the true prevalence of the virus. A further complication with using testing coverage as an indicator of reliability, is that the number of tests needed to have an accurate picture of the spread of the virus varies over the course of an outbreak.

At the beginning of an outbreak, where the number of people infected with the virus is low, a much smaller number of tests are needed to accurately assess the spread of the virus. As the virus infects more people, testing coverage also needs to expand in order to provide a reliable picture of the true number of infected people. For this reason it is helpful to look at the number of tests performed for each confirmed case. This gives us an indication of the scale of testing that accounts for the different stages each country may be in its outbreak. The bar chart shows the number of tests, or people tested per confirmed case. The data can also be viewed over time in this chart. The key insight from this metric is that there are very large differences between countries. In some countries the number of tests are many times higher than the number of confirmed cases. As of 11 April, in Vietnam more than 400 tests had been conducted for each confirmed case. In Taiwan and Russia there had been around a hundred tests for each confirmed case. But in other countries testing is very low relative to the number of confirmed cases. The US, the UK and Ecuador had performed around 5 tests or fewer for every confirmed case.

Total tests for COVID-19 per 1,000 people, Apr 13, 2020



Number of COVID-19 tests per confirmed case, Apr 13, 2020



Subject in Focus	De-escalation After the implementation of stringent Public Health measures (e.g. physical distancing) by most EU/EEA countries affected by COVID-19 some weeks ago, observed numbers of cases and fatalities are indicating their effectiveness within the expected delay (~ 1 week for number of new cases, 2-3 weeks for number of new fatalities). Given that the effectiveness of such measures is becoming more and more evident, it is important to start preparing a de-escalation strategy. In the long run herd immunity must be the objective. Currently no country is near reaching herd immunity (with an estimated $R_0 = 3$, approx. 67% of the population must be immune to allow for herd immunity). Therefore, the development of a vaccine is key but this will take at least until year-end 2020. In the meantime, it is important to slowly restart public life to mitigate further economic and social (e.g. mental-health and future non-compliance) consequences. While lifting all restrictions at once would rapidly overwhelm national health-systems, maintaining current restrictions over an extended period would lead to a massive economic and social disaster. Mental-health and (non-)compliance are important factors for the effectiveness of non-pharmaceutical measures. Especially people's compliance is of utmost importance for the effectiveness of current measures as well as for the possibility of a flexible (re)introduction of measures after a tentative loosening to allow for "optimal" infection rates. An infection rate is considered to be optimal if the incidence is slightly below the hospitals' capacity and therefore allows more and more people to return to a rather normal life after they survived a COVID-19 infection and built up natural immunity. In this respect it is paramount to find further evidence for a lasting immunity after a COVID-19 infection (current studies are promising). While immunity is slowly built up in the population, groups at high risk (e.g. >65 years of age, smokers etc.) should be protected with a 'cocooning' approach. The following points should be considered and can be seen as take-home messages: • Keeping up strict measures is likely to put heavy burden on the economy and the population (mental health and non-compliance) • De-escalating too quickly can lead to an upsurge in transmissions overwhelming the health-systems • Flexible de-escalation with respect to hospital-capacity and adequate protection of high-risk groups ('cocooning' approach) appears to be the best way if a COVID-19 infection grants immunity • Keeping the public compliant with current and future measures is key for success • Having surveillance and testing systems with sufficient capacities in place is necessary to closely monitor the effects of (de-)escalation • The effects of every (de-)escalation measure will only be seen approx. 1 week (new cases) or 2-3 weeks (new deaths) after implementation. If stricter measures appear to be necessary and are implemented immediately it will take said time until relief is felt in hospitals and at other health service providers • Building rosters of immune workers could allow to restart regular working life in the future
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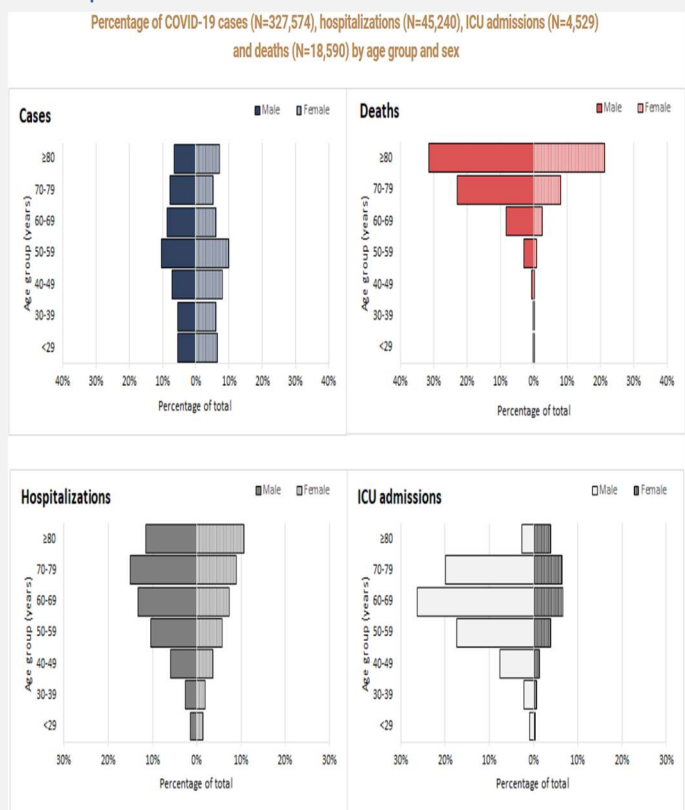
Infection

- 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.
COVID-19 IS CONFIRMED AS AIRBORNE AND REMAINS IN THE AIR SO YOU CAN BE INFECTED ANYWHERE!!
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.
World Health Organization
March 28 2020
#Coronavirus #COVID19

Data for European countries.

Characteristics of COVID-19 cases and deaths			
Characteristics		n	%
Cases			
Age in years, median (range)*	54 (1-105)	275846	
Sex, male*	140883	52	273293
Travelled*	8481	26	33106
Recovered*	13488	20	66042
Health care workers*	19519	13	152848
Hospitalization*	50788	31	164686
Intensive care unit admissions*	5359	4	126789
Deaths			
Age in years, median (range)^	80 (24-105)	18176	
Sex, male^	11122	58	19043
At least one underlying condition^	4728	91	5196
• cardiovascular disease	2180	42	5224
• diabetes	1010	20	5092
• lung disease	540	11	4906
• renal disease	263	17	1547
• malignancy	189	17	1103
• neurological disease / dementia	205	14	1497
• other	1041	17	6291



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

Vaccine

A vaccine is currently under development. Numerous initiatives aim at inventing a vaccine that allows widespread use and immunisation. A vaccine is seen as the game-changer in fighting COVID-19. WHO developed a Target Product Profile (TPP) that specifies the preferred and minimum characteristics of said vaccine and should guide and prioritize the development of vaccines. All in all the most important criterion for an anti-COVID-19 vaccine is the capability of protecting esp. adults/the elderly (as children usually show a mild

course of the disease or no symptoms). The detailed list of criteria can be found following the link below. This TPP might be subject do further changes/updates over time.
Find the full document [here](#)

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.

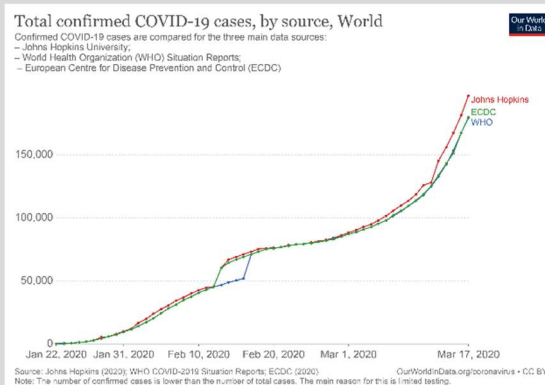


Figure 1: Number of global cases by source

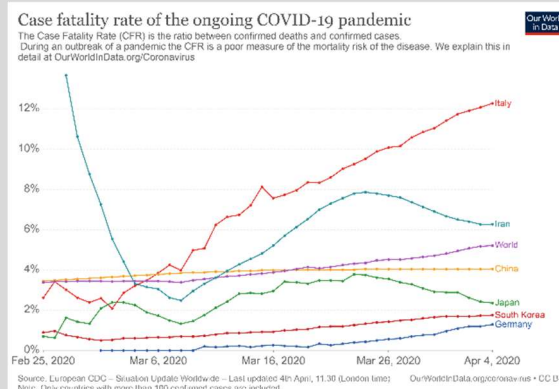


Figure 2: CFR in various countries during the outbreak

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.

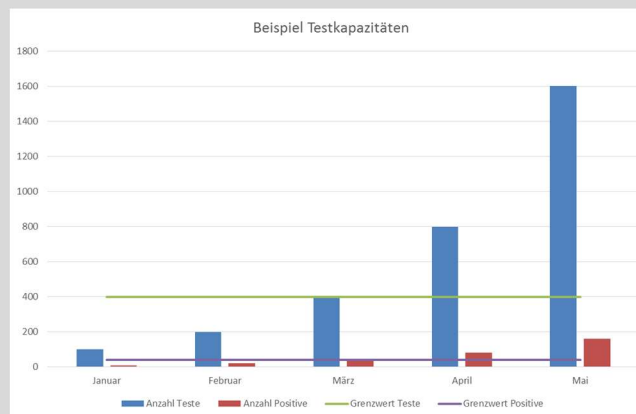


Figure 3: Exemplary illustration of limited laboratory capacities

- **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.

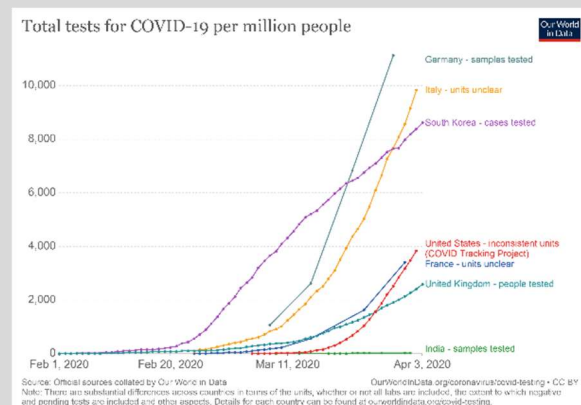


Figure 4: Tests per 1 million inhabitants in various countries

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

Doubling of numbers

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

Location	How long did it take for the number of total confirmed cases to double?	Total confirmed cases ECDC data. Up to date for 10 AM (CET) on April 13.	Daily new confirmed cases ECDC data. Up to date for 10 AM (CET) on April 13.
World	doubled in 12 days	1,807,308 total April 13	+72,395 new April 13
United States	doubled in 9 days	557,571 total April 13	+27,620 new April 13
Spain	doubled in 14 days	166,019 total April 13	+4,167 new April 13
Italy	doubled in 18 days	156,363 total April 13	+4,092 new April 13
Germany	doubled in 14 days	123,016 total April 13	+2,537 new April 13
France	doubled in 13 days	95,403 total April 13	+1,613 new April 13
United Kingdom	doubled in 8 days	84,279 total April 13	+5,288 new April 13
China	doubled in 63 days	83,209 total April 13	+112 new April 13
Iran	doubled in 15 days	71,686 total April 13	+1,657 new April 13
Turkey	doubled in 7 days	56,956 total April 13	+4,789 new April 13
Belgium	doubled in 11 days	29,647 total April 13	+1,629 new April 13

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 compared 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

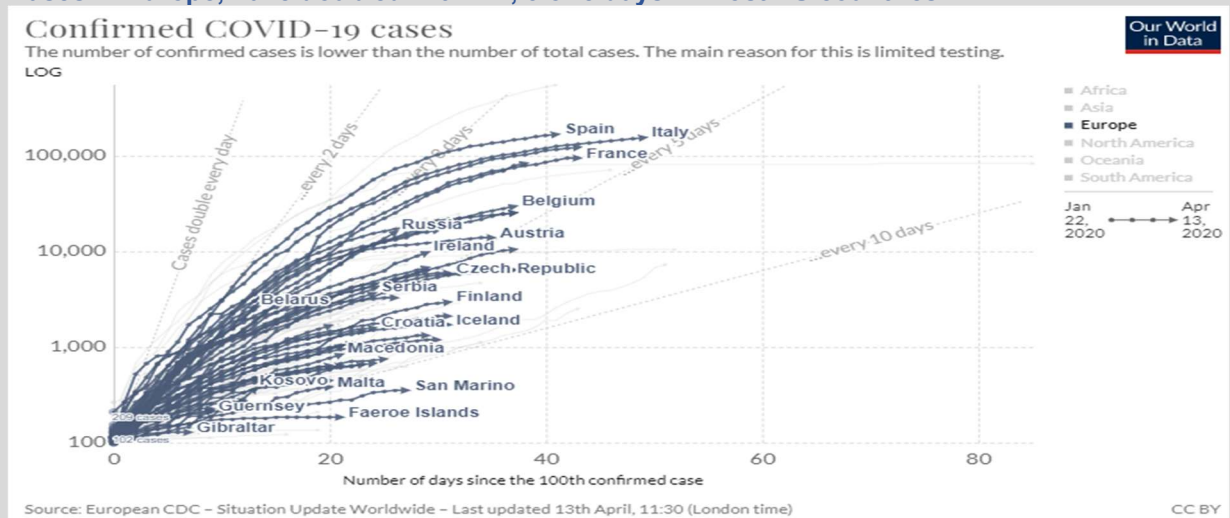
The COVID-19 outbreak started in different countries at different times, and now those countries are at different stages. For instance, on 25 March, Italy had reported 74 386 confirmed cases, while the UK had only reported 8 077. But it would be useful to know whether cases in the UK now are growing 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 county already confirmed the 10 000th case. Other countries saw a much slower increase, for example in Singapore and Japan.

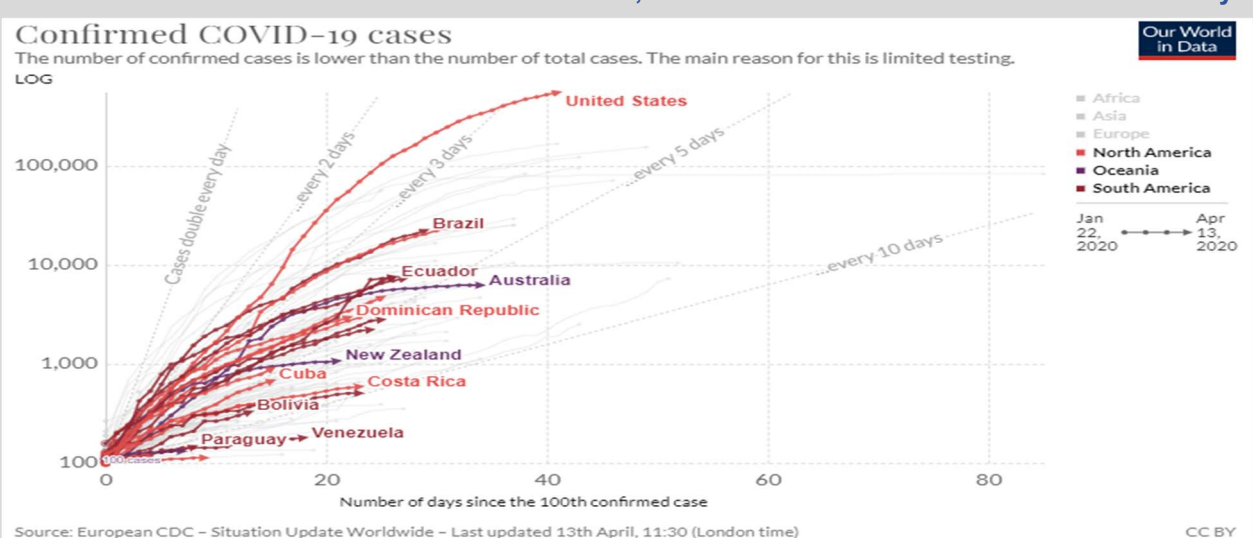
The straight grey lines show trajectories for a doubling time of 2, 3, 5 and 10 days.

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.

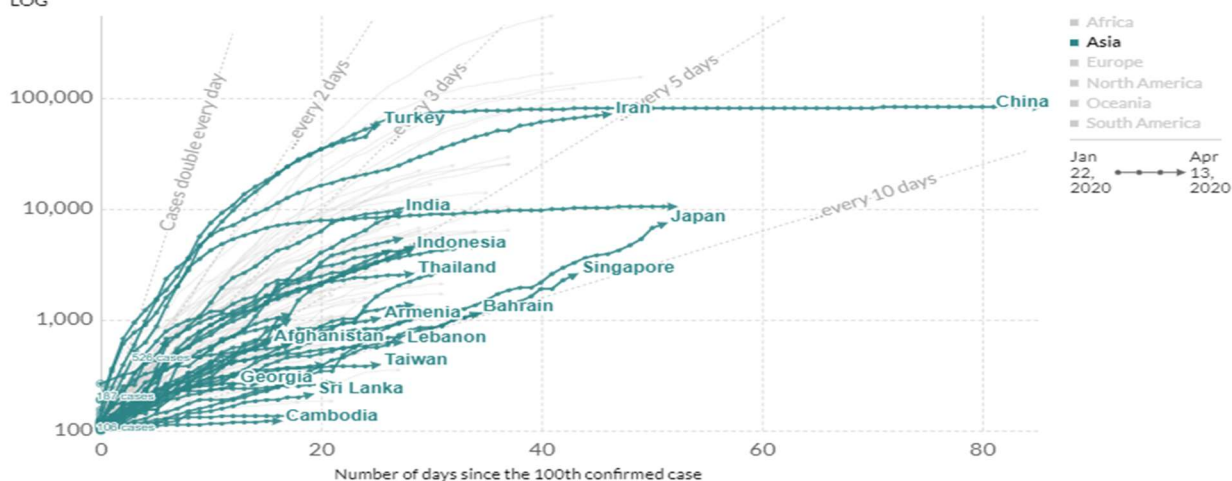


In contrast, Asia partially doubled its number of cases every day.

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.

Confirmed COVID-19 cases

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



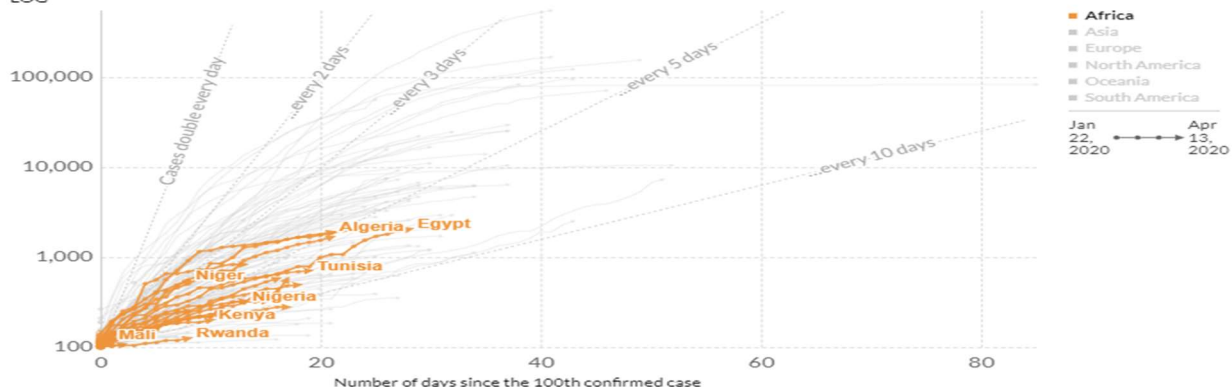
Source: European CDC – Situation Update Worldwide – Last updated 13th April, 11:30 (London time)

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

Confirmed COVID-19 cases

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



Source: European CDC – Situation Update Worldwide – Last updated 13th April, 11:30 (London time)

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Case definition by WHO

WHO has developed the following definition for reporting COVID deaths: a COVID-19 death is defined for surveillance purposes as a death resulting from a clinically compatible illness in a probable or confirmed COVID-19 case, unless there is a clear alternative cause of death that cannot be related to COVID disease (e.g., trauma). There should be no period of complete recovery between the illness and death.

- **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

B. 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

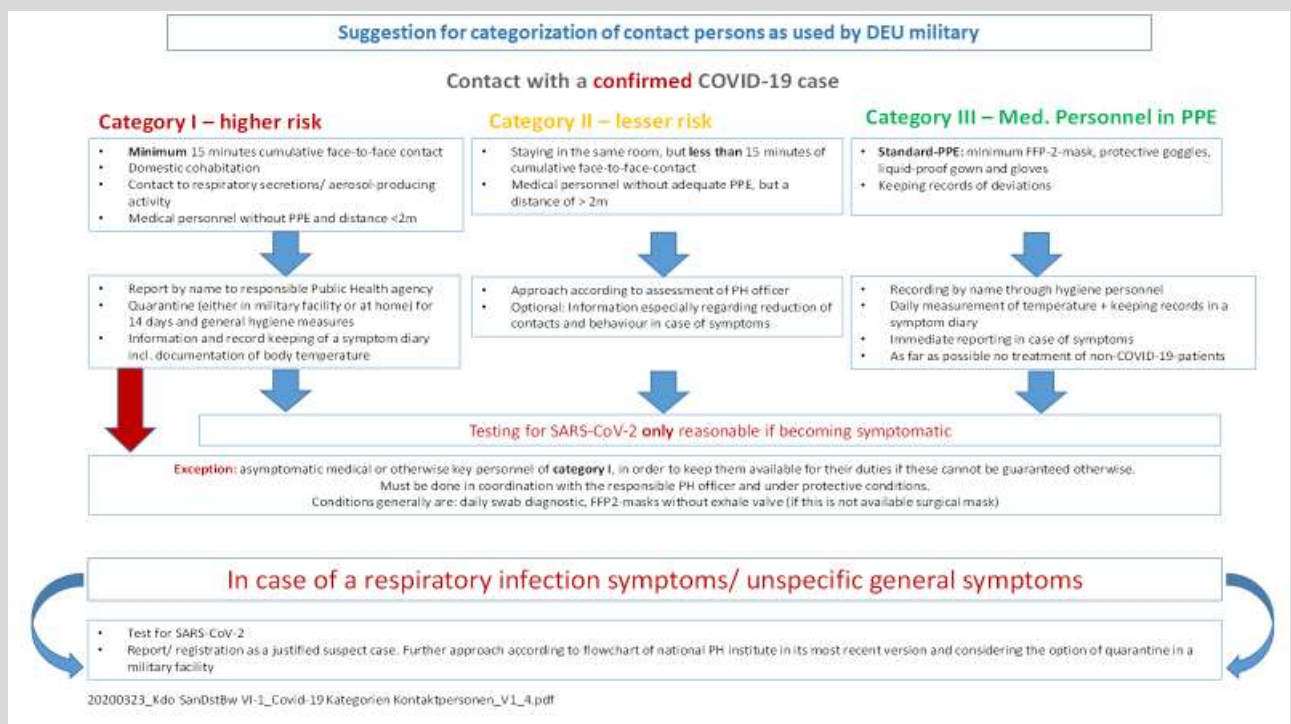
A contact is a person who experienced any one of the following exposures during the 2 days before and after the onset of symptoms of a probable or confirmed case:

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.

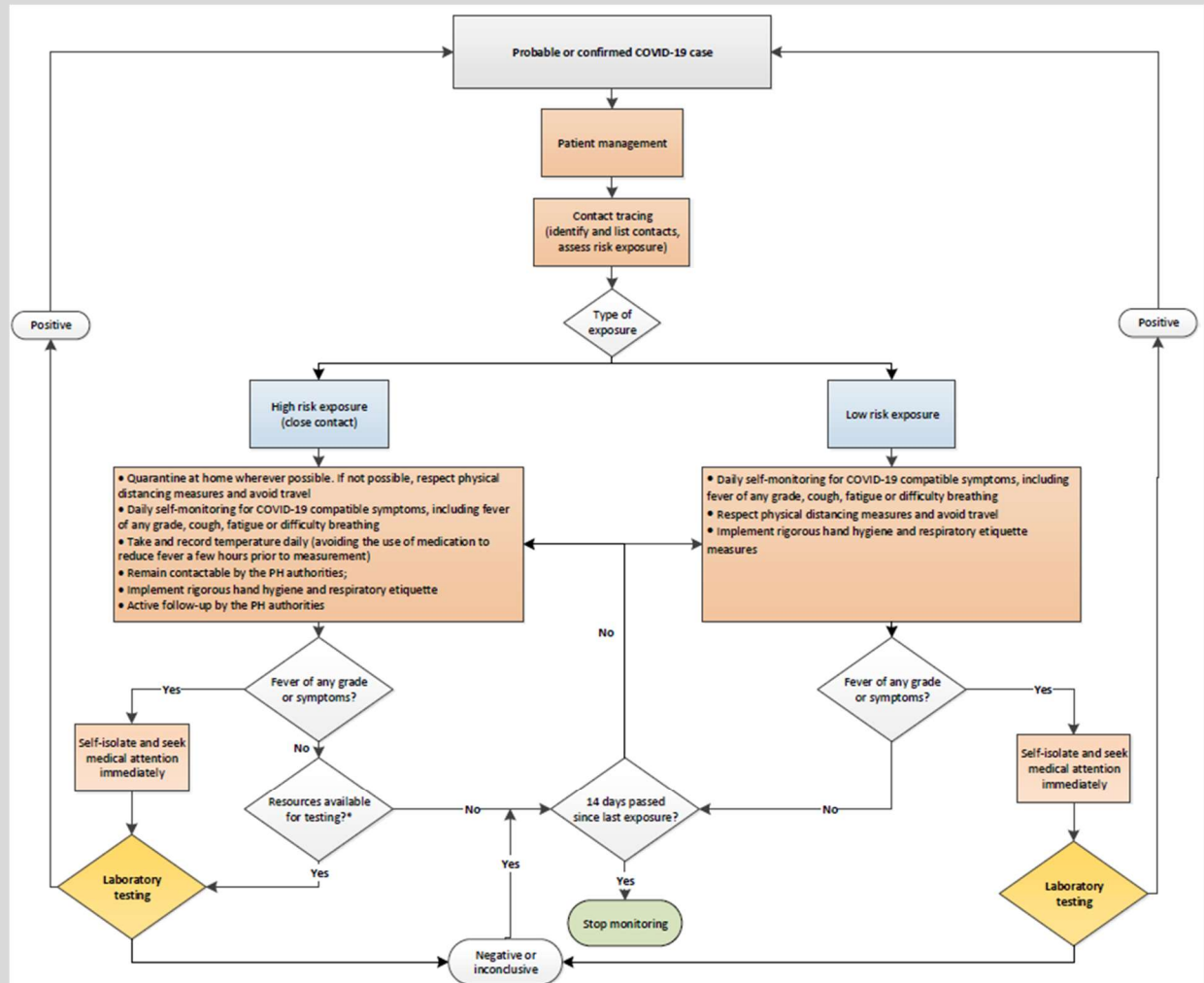
Note: for confirmed asymptomatic cases, the period of contact is measured as the 2 days before through the 14 days after the date on which the sample was taken which led to confirmation.

The European case definition by ECDC you will find [here](#).

Suggestion of managing contact persons



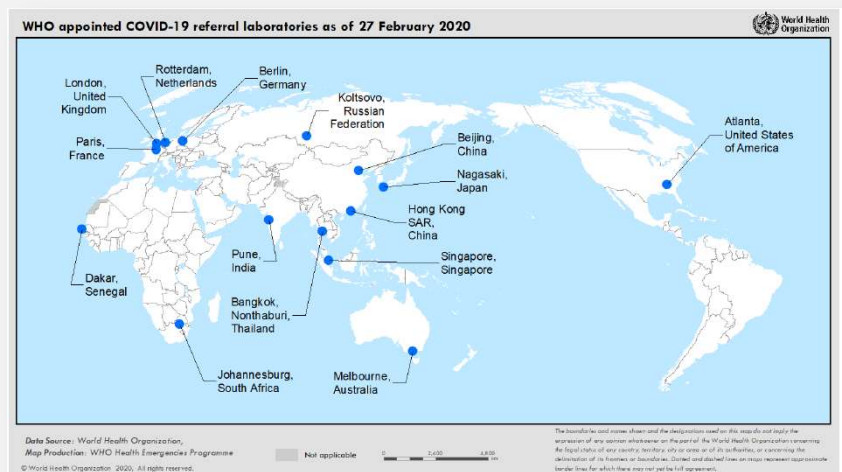
Algorithm for the management of contacts of probable or confirmed COVID-19 cases by ECDC



*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



Testing for SARS-CoV-2 virus	Case confirmation supports rapid and effective contact tracing, implementation of infection prevention and control measures in accordance with national recommendations, and adequate support to the patient. Any person fulfilling the criteria of a suspected case should be tested for SARS-CoV-2 virus, as part of active case finding. However, national authorities may decide to only test subgroups of suspected cases based on the national epidemiological situation, capacity to test or other criteria. The criteria for laboratory testing of patients with acute respiratory tract infection could also include a case-by-case clinical judgement based on national recommendations. The WHO recommendations for testing strategy are available here. As long as the resources allow, a single positive test should be confirmed by a second RT-PCR assay targeting a different SARS-CoV-2 gene. In situations of large increase of cases and community transmission where a second confirmatory test might not be feasible or delay the confirmation, a single positive laboratory test is sufficient to confirm a suspect COVID-19 case. A single negative SARS-CoV-2 test (especially if from an upper respiratory tract specimen) or a positive test result for another respiratory pathogen result does not exclude SARS-CoV-2 infection. If the result of the first virus gene test is inconclusive or weakly positive and there is a strong suspicion for SARS-CoV-2 infection, another specimen should be tested with the primary and secondary RT-PCR assays. To safeguard sampling and testing resources, the following actions can be considered: • Use of one swab per patient for oropharynx and nasopharynx • Pooling of multiple respiratory specimens from one patient • Prioritise hospitalised patients and vulnerable populations
Types of specimens	The following <i>upper respiratory tract</i> specimens should be considered: • nasopharyngeal swab • oropharyngeal (throat) swab • nasopharyngeal aspirate or nasal wash If the patient is hospitalised or in intensive care, <i>lower respiratory tract</i> specimens could be considered: • bronchoalveolar lavage (BAL) • endotracheal aspirate (ETA) • expectorated sputum (for patients with productive cough, no induction of sputum is recommended) <i>Additional specimens</i> to consider for later testing: • serum, acute and convalescent (possibly 2 to 4 weeks after acute phase) for when serological testing becomes available • faeces Respiratory specimen collection from the upper and in particular lower respiratory tract should be performed under heightened infection prevention and control measures (airborne precautions) in accordance with ECDC technical report on Infection prevention and control for the care of patients with 2019-nCoV in healthcare settings. Specimens should be collected as soon as possible. Similar to other viral respiratory infections, it is likely that respiratory specimens collected early after symptom onset yield higher virus concentrations. According to the ECDC technical report on Discharge criteria for confirmed COVID-19 cases – When is it safe to discharge COVID-19 cases from the hospital or end home isolation? the frequency of specimen collection for hospitalised patients should be at least every 2 to 4 days until there are two upper respiratory tract samples negative for SARS-CoV-2, collected at ≥ 24-hour intervals. For symptomatic patients after the resolution of symptoms, samples should be collected at least seven days after the onset of symptoms or after > 3 days without fever. When resources are limited, discharge based on only clinical symptoms is advised.
Storage of specimens	All specimens should be stored at 2-8 oC for up to 48 hours after collection. For handling or shipping after 48 hours, storage at -70 oC is recommended. Find more detailed information here.

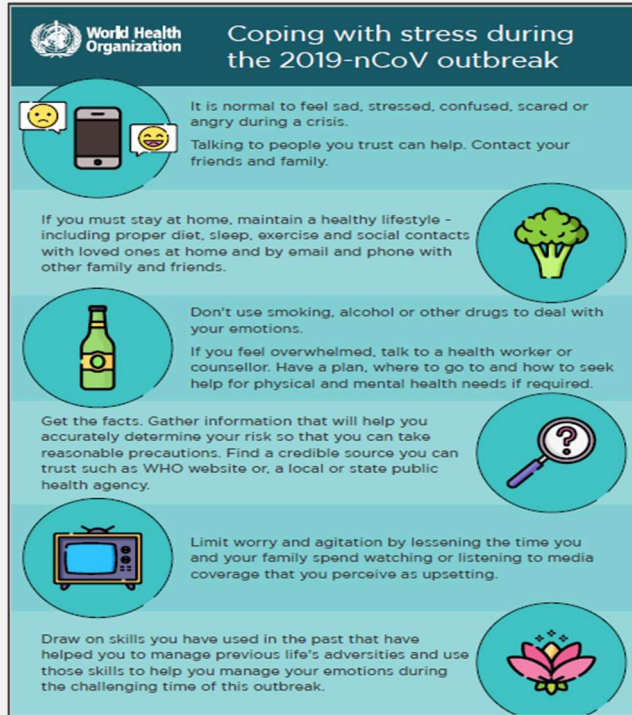
Strategic	Strategic objectives for response by WHO are: • Interrupt human-to-human transmission including reducing secondary infections among close contacts and health care workers, preventing transmission amplification events, and preventing further international spread *; • Identify, isolate and care 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. *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..
Conflict and Health	(Public) Health is a topic that is often neglected during times of conflicts and civil unrest. While military personnel regularly has access to medical supplies and a dedicated military health service, the public often suffers from a lack of supply with medical equipment and basic goods (e.g. clean water), low number of health-care professionals and an increased burden on the individuals' mental and physical wellbeing. During conflicts an increased probability of the emergence of infectious diseases can be observed (e.g. in refugee-camps or in war zones with numerous unburied corpses). Given those circumstances public authorities are seldom capable of maintaining surveillance networks and enforcing mitigation and containment measures (e.g. contact tracing) which are key for preventing large-scale outbreaks within an already highly vulnerable and challenged population. If a disease like COVID-19 is introduced into such a population an uncontrolled spread and devastating consequences for the society are highly likely. In addition, in some conflict areas external/international help is either unwanted by the public (due to previous bad subjective experience or disinformation campaigns) or prohibited by local authorities/conflict parties. In certain conflicts the emergence of an infectious disease might also be used as a “natural” bio-weapon by only protecting selected (ethnic/political) groups or not protecting the population of opponent's areas. If countries want to help areas with on-going conflicts they should keep in mind aspects like: • Necessity and difficulty of maintaining clear and transparent communication (e.g. cultural/social barriers, distrust in existing governmental structures, disinformation campaigns orchestrated by conflict parties, the disease might be considered a less important problem compared to everyday risks within a war-zone) • Necessity of a minimum stability within the area to send civil personnel. A robust mission with mostly military personnel comes with additional difficulties and is usually not possible without major political consequences and planning. In addition a military operation can negatively affect the publics willingness to accept foreign help. • Allowing a virus to spread within war zones can on the one hand put an unbearable burden on already heavily challenged populations, on the other hand it can foil the plan of global containment of the pandemic if the virus is allowed to become endemic in the affected population due to possible global re-infections.
Mental health aspects (as an example of the DEU BW)	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. 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.

Home quarantine and self-isolation can have serious psychosocial consequences.

There are three critical factors:

- The feeling of (losing) independency
- The feeling of connectedness (with others)
- The feeling of self-competence (the feeling of something meaningful/effective)

In order to prevent such situation or to alleviate their impact on the individual there is some advice to be followed.



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 psychological 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:

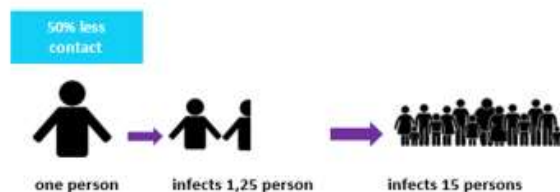
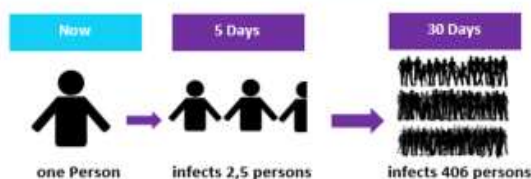
- **Access trustworthy information - gain safety:** Frequent information from reliable sources (e.g. public broadcasting, websites of the federal ministries) helps to avoid getting lost in thoughts. Thereby safety in a situation where fear and anxiety are "perfectly normal and understandable" is maintained/regained.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



Social Distancing

- 1** 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.
- 2** 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.
- 3** Cancel unnecessary travel and postpone meetings that are not essential.
- 4** Do not stay longer than necessary in social rooms such as kitchens or common rooms. Keep your distance from others.
- 5** Bring your own meals to work and eat them at your desk.
- 6** Avoid public transportation. Instead, walk, use the bike or your own car. Avoid the "rush hours" by starting or stopping work early.
- 7** 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".

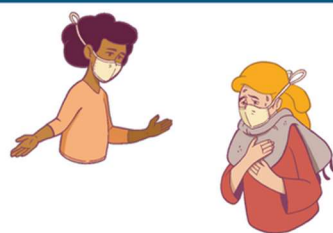
ECDC stated: "The use of surgical face masks decreases the risk of infecting others when worn by a person with respiratory symptoms before seeking medical advice and while being assessed, until isolation. There is no evidence on the usefulness of face masks worn by persons who are not ill to prevent 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



World Health Organization

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 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	<u>In the case of non-deferrable trips, please note the following</u> - 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. <u>Most countries implemented strikt rules of contact reduction:</u> - 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. General recommendations for personal hygiene, cough etiquette and keeping a distance of at least one metre from persons showing symptoms remain particularly important for all travellers. These include: - Perform hand hygiene frequently. Hand hygiene includes either cleaning hands with soap and water or with an alcohol-based hand rub. Alcohol-based hand rubs are preferred if hands are not visibly soiled; wash hands with soap and water when they are visibly soiled; - Cover your nose and mouth with a flexed elbow or paper tissue when coughing or sneezing and disposing immediately of the tissue and performing hand hygiene; - Refrain from touching mouth and nose; See also: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public <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. 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. Source: WHO
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	- 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	ECDC assessment for EU/EEA, UK: 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