



ECDC INTERNAL DOCUMENT

Communication

ECDC lines-to-take

Novel coronavirus, China, COVID-19

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ECDC online resources: ECDC updates epidemiological information and the risk assessment daily and provides guidance to support Member States on a dedicated COVID-19 page: <http://bit.ly/COVID19ECDC>

Situation update worldwide: <https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases>

Situation update EU/EEA: <https://www.ecdc.europa.eu/en/cases-2019-ncov-eueea>

Risk assessment: <https://www.ecdc.europa.eu/en/current-risk-assessment-novel-coronavirus-situation>

Technical reports and guidance: <https://www.ecdc.europa.eu/en/coronavirus/guidance-and-technical-reports>

Key Messages

- The risk associated with COVID-19 infection for people from the EU/EEA and UK is currently considered to be moderate to high.
- The risk of the occurrence of clusters of COVID-19, similar to the ones in Italy, in other countries in the EU/EEA and the UK is currently considered to be moderate to high.
- The risk of acquiring COVID-19 infection for people from the EU/EEA and the UK travelling/resident in areas with presumed community transmission is currently considered to be high.
- ECDC has outlined 5 progressive scenarios to guide preparedness and response. It is crucial that the measures taken by national and regional authorities are proportionate to each potential scenario of the epidemic.
- The EU/EEA as a whole is in an epidemic phase of multiple introductions and limited community transmission of COVID-19, which could progress to a scenario of increased numbers of local outbreaks and sustained community transmission within these.

- ◆ In the current phase, the reduction and prevention of further spread will diminish the intensity of the epidemic and slow down the increase in cases. This will ultimately, save lives, minimize the socio-economic impact, and allow healthcare systems to prepare and cope with an increased influx of patients.
- ◆ This virus could potentially cause significant outbreaks in healthcare and other settings. Healthcare workers in the EU/EEA and the UK need to be aware and vigilant in order to detect possible COVID-19 cases early, and apply appropriate infection prevention and control measures when handling patients.

Questions and answers

Latest risk assessment / current situation in the EU

Q. What is new in this risk assessment?

- ◆ Updated epidemiological data
- ◆ Description of cases and transmission reported in the EU/EEA and the UK
- ◆ Findings on disease and transmissibility
- ◆ Risk to the healthcare systems in the EU/EEA and the UK
- ◆ Risk to citizens from the EU/EEA and UK travelling or living in areas with presumed community transmission
- ◆ Risk of widespread and sustained transmission in the EU/EEA and UK in the coming weeks
- ◆ Options for preparedness and response; including a proposed change in case definition.

Q. How would you describe the situation in Europe at the moment?

Two months after the emergence of COVID-19, an increase in cases has been noted beyond China, with 64 countries globally reporting cases, including 19 countries in the EU/EEA and the UK, Switzerland, San Marino and Monaco. Further imported and locally acquired cases are expected in EU/EEA countries. In the event of established and widespread community transmission, current containment measures may no longer be an efficient use of resources. If this occurs, action should be taken to prepare for a mitigation strategy that includes co-ordinated efforts to protect the health of EU/EEA and UK citizens by decreasing the burden on healthcare systems and protecting populations at risk of severe disease.

Q. If I live in an area where there is presumed community transmission, what is the risk?

The risk of acquiring COVID-19 infection for people who have travelled to, or are resident in, areas with presumed community transmission is currently high. There are significant uncertainties regarding transmissibility and under-detection, particularly among mild or asymptomatic cases. The number of areas with presumed community transmission is also likely to increase as importations in unaffected areas keep on occurring.

Q. If I live in an area where there is no confirmed transmission, what is the risk?

The risk of acquiring the disease is currently low for people who are travelling/resident in areas with no cases or very limited localised transmission, assuming the surveillance in the area is activated, that tests are

carried out on suspected cases, and there is sufficient testing capacity in the area. If these conditions are not met, the risk is considered moderate to high, but with a high level of uncertainty.

Q. What is the risk of widespread sustained transmission in the EU/EEA and UK in the coming weeks?

The risk of widespread sustained transmission of COVID-19 in EU/EEA and UK in the coming weeks is moderate to high, with countries expected to report more cases and clusters.

This assessment is based on the following factors:

- There is an increasing number of countries with widespread community transmission around the world and in Europe, and these are exporting cases with subsequent transmission to previously unaffected areas. The control measures have up to now been able to only slow, but not to stop, further spread.
- Cases with mild symptoms are numerous and able to transmit the infection. Cases with mild symptoms are not always aware of their potential infectivity, and some people with mild symptoms have sought medical care, thereby infecting health care workers.
- Previously unaffected areas are reporting cases with no history of travel to countries or areas where there is known community transmission.

Q. Will health systems in Europe be able to cope?

If in the coming weeks there is a significant increase in COVID-19 cases, the potential impact on the public health and the healthcare systems would be high. Increasing numbers of imported cases and local transmission chains would require additional resources for case management, surveillance, and contact tracing. Risk communication to the public and to healthcare professionals would tie up further resources. Further increased transmission could result in a significant increase of hospital admissions at a time when healthcare systems may already be under pressure from the current influenza season. This situation would be further exacerbated if substantial numbers of healthcare workers became infected. Bottlenecks may also emerge in terms of diagnostic capacity. Containment measures intended to slow down the spread of the virus in the population are therefore extremely important.

Q. Does the ongoing influenza season in Europe constitute an additional risk?

The data indicate that some EU/EEA countries might have already moved past the peak period of high influenza circulation. A significant increase in COVID-19 cases during the peak of the influenza season could result in a subsequent large increase in hospital admissions at a time when healthcare systems are already under pressure. This would be intensified if substantial numbers of healthcare workers are infected. In this scenario, particular challenges would emerge if laboratories are already strained by the need to test for other respiratory infections. Containment measures intended to slow down the spread of the virus in the population are therefore extremely important during and around the peak of the influenza season.

Many hospitals in Europe do not have large surge capacities for additional patients. It is common that during a normal influenza season the maximum capacity is reached. A dramatic increase of COVID-19 cases during and around the peak of the influenza season would likely mean that:

- Many hospitals would reach their maximum capacity with the risk that all patients could not be treated.
- Since influenza and COVID-19 have overlapping clinical symptoms, a lot of people without COVID-19 would still be seeking for care or diagnosis, which would put significant extra pressure on the healthcare system.
- Accumulation of people in healthcare settings seeking care or diagnosis would increase the risk for transmissions in these settings.

Therefore, measures put in place today that strive to delay or even stop local transmission, can greatly facilitate avoidance of overlap with the peak of the influenza season. Every week of delay is invaluable in reducing pressure on the health system.

Q. How do you evaluate the coronavirus outbreak in Italy? Are there any concerns that it will spread to the rest of the country and other Member States?

A. This is the first time we are seeing large and rapidly increasing numbers of people with COVID-19 within the EU. It appears in the current event in Italy that local transmission may have resulted in several clusters. The situation is evolving dynamically, with more cases expected in the coming days.

The public health measures that were implemented by the Italian authorities immediately after identifying the COVID-19 cases will reduce the impact of such outbreaks as well as the further spread. The accumulated evidence from clusters reported in the EU/EEA and the UK indicates that once imported, the virus causing COVID-19 can transmit rapidly. The risk of the occurrence of COVID-19 clusters similar to the ones in Italy, in other countries in the EU/EEA and the UK is currently considered to be moderate to high.

Q. What is the risk that we see similar clusters as the ones in Italy?

A. The increase in case numbers and the number of countries outside China reporting those cases increases the potential routes of importation of the infection into the EU/EEA and the UK. Importations from other European countries have already occurred. The risk of the occurrence of COVID-19 clusters similar to the ones in Italy, in other countries in the EU/EEA, and the UK is currently considered to be moderate to high.

Q. Do you consider the Italian measures to be efficient?

A. The Italian authorities are identifying all contacts of the confirmed cases and have announced public health measures for containment, including suspension of mass gatherings, suspension of childcare and schools, and access to essential public services conditioned to the use of personal protective equipment. These extraordinary measures in northern Italy are essential to limit the outbreak and may need to be replicated in other communities in the coming days.

Q. Is Europe ready and well-equipped to face an outbreak of COVID-19? Do European citizens have to worry about the spread of the virus?

A. All EU/EEA Member States have pandemic preparedness plans, which are applicable to the current situation. At this stage, it is likely that there will be additional imported cases in Europe. To mitigate the risk of spread within the EU/EEA, Member States are aligning their pandemic preparedness plans to address the current outbreak.

When imported or locally transmitted COVID-19 cases are detected, we need to do our utmost so that the virus does not spread any further. ECDC has outlined 5 scenarios to guide preparedness and response. It is crucial that measures are appropriate and proportionate to the specific phase of the epidemic. In the current phase, disruption and prevention of further spread will reduce the intensity of the epidemic and slow down the increase in cases. This will ultimately, save lives, minimize the socio-economic impact and allow healthcare systems to prepare and cope with an increased influx of patients.

ECDC is working with the Member States to make sure that they are ready to manage imported and locally transmitted cases, with laboratories capable of confirming probable cases and hospitals prepared to isolate and treat patients accordingly.

Due to the presence of the virus in multiple EU/EEA countries, public health authorities are recommended

to review and adapt their pandemic preparedness plan, and then, if not done already, to consider activating the plans.

With EU/EEA healthcare workers being vigilant to detect cases early, with appropriate infection control measures in place in healthcare settings, and with public health authorities in the countries supported by ECDC and the EU Commission, we hope to prevent sustained local transmission from occurring within Europe. In the past, systematic implementation of infection prevention and control measures were effective in controlling both SARS-CoV and MERS-CoV.

Global situation

Q Are we now entering a pandemic phase? What does this mean?

A. The World Health Organization declares a pandemic based on assessment of the geographical spread of the virus, the severity of disease it causes and the societal impact it has. The declaration of a pandemic by the WHO triggers some countries to automatically activate their pandemic preparedness plans.

EU countries have been preparing for this scenario, and all of them have pandemic preparedness plans in place. These plans will enable the best possible response to this new threat. ECDC will liaise with WHO and Member States to support their implementation of these plans.

Q There seems to be a decreasing number of new cases in China. What can be said about this?

A. There seems to have been decreasing trend of cases reported from China. This may be due to changes in the case definition and in testing, and may represent a decline due to the extensive response measures put in place. It is probably still too early to draw any real conclusions regarding the true long-term trend.

Q. What can you say about the reported cases in (insert country)?

A. ECDC is aware of the [...] and these cases are included in our daily updates. We are working closely with [...] authorities and proper measures are being taken to limit further spread of the virus.

Further importations of cases in Europe and limited local transmission can be expected. Rigorous follow-up of contacts and application of infection control measures is of top priority now to contain any further spread of the virus.

(This event does/does not change) ECDC's risk assessment which remains at:
<https://www.ecdc.europa.eu/en/current-risk-assessment-novel-coronavirus-situation>

Q Is it safe to travel to xxx?

A. ECDC does not provide travel advice. It is up to each Member State to issue travel advice based on the current risk assessment level.

Q. What impact does the closing down of cities have? Is this step lowering the risk of exportation of COVID-19?

A. This is an ongoing and emerging situation and we still do not know enough about this new virus and its potential to spread. Therefore, it is prudent to reduce the general risk of acute respiratory infections, which includes reducing contact with people potentially infected with this novel coronavirus.

As long as the transmission patterns of the COVID-19 remain unclear, it is very difficult to assess the potential positive impact of those measures.

General background: COVID-19

Q. What are the symptoms?

A. The common symptoms of COVID-19 are similar to influenza and include fever, cough, pain in the muscles and fatigue. The more severe cases develop severe pneumonia, acute respiratory distress syndrome, sepsis and septic shock, potentially leading to death.

An analysis of more than 44 000 confirmed cases in China diagnosed through 11 February 2020 found that 81% of the patients appeared to have fairly mild symptoms (non-pneumonia or mild pneumonia), while 14% were classified as severe (shortness of breath, respiratory rate ≥ 30 /minute, blood oxygen saturation $\leq 93\%$, lung infiltrates $>50\%$ within 24/48 hours) and 5% were critical (respiratory failure, septic shock, and/or multiple organ failure). In several smaller studies from China, one-third of patients developed shortness of breath within five days of symptom onset and 23–26% of hospitalised patients required admission to the intensive care unit (ICU).

Q. What are the treatment options?

A. There is no specific treatment for this disease, so doctors are using a symptomatic approach, meaning they treat the symptoms rather than target the virus. Supportive care (e.g. oxygen therapy, fluid management) for infected persons can be highly effective. Several trials are ongoing on different antiviral measures but results are not yet available. As this is a new virus, no vaccine is currently available. Although work on a vaccine has already started, it may be months to years before a vaccine has been tested and is ready for use in humans.

Q. How transmissible is the virus?

A. The transmissibility is not very clear yet, but given the spread within and beyond China during a period of less than two months, this virus appears to spread quickly. We need a better understanding of the extent of transmissibility at different stages of the infection, including in the absence of symptoms or in cases with mild symptoms. Further research is underway combining clinical and epidemiological data to try to better understand these issues.

Q. Is there a risk that the virus can mutate?

A. This is always a possibility. There are several mutations in every replication cycle. The question remains whether any of these mutations have an impact on virus fitness or virulence.

So far, the information about the virus is quite scarce, so it is not possible to make any predictions.

Q. How high is the death rate for COVID-19?

A. At this stage, Chinese health authorities still consider COVID-19 to be a disease with a most commonly mild course of infection (81% of cases), even though severe cases and deaths have been reported. In a large study published by the Chinese CDC of 44,672 confirmed COVID-19 cases, 1023 (2.3%) were reported to have died by the end of the follow-up period, although this may underestimate mortality as some of the cases were not followed up long enough to have resolved their infection or to have died. Among the more than 2000 critically ill patients (ie respiratory failure, septic shock, and/or multiple organ failure) in the CDC China study, 49% were reported to have died by the end of the follow-up period. The same study also found the majority of deaths (81%) among people over 60 years of age and among individuals with comorbidities such as hypertension, diabetes, and heart disease.

Q. Comparing to other diseases, such as measles or flu: what is the burden of COVID-19?

A. ECDC estimates that each year, 15 000-75 000 people in the EU, the UK, Norway, Iceland and Liechtenstein die prematurely due to causes associated with influenza. More than 14 000 new cases of measles were reported by 28 EU countries in 2017. In comparison, until now, the burden of the few COVID-19 cases reported in European countries remains substantially lower.

When a new virus enters into humans it is likely that there is no immunity in the population. This separates the COVID-19 from seasonal influenza where there is immunity among humans from earlier infections and vaccination. In other words, more people can potentially be infected by the new virus. With more people infected with the new virus and higher mortality, the outcome would be worse than a normal influenza season.

Q Can the virus be transmitted from an infected person who has no, or very mild, symptoms?

A The scientific data available on COVID-19 transmission are not adequate yet to answer this with confidence. From the available evidence, it appears that individuals who are pre-symptomatic may be able to transmit the virus, however it seems that this plays a fairly minor role in transmission dynamics. It should be kept in mind that virus shedding usually progressively increases along with worsening clinical symptoms, during the course of the disease. One of the key questions is when the virus shedding of an infected person reaches the level that is enough for transmission to susceptible ones. However, this is influenced by several other factors (i.e. distance, type of contact/exposure).

Q Is there a seasonal component as to how the virus will behave?

This is too early to say. If COVID-19 demonstrates seasonality like influenza and other respiratory tract viruses, a decline in cases during the northern hemisphere summer would provide time to prepare for the following transmission season.

Risk for spread and transmission scenarios

Q. What will happen if there is widespread sustained transmission with increasing pressure on healthcare system?

This would require a shift from containment to mitigation, requiring substantial risk communication effort to ensure that the public knows how to respond in case of a suspected infection. Member States may consider the implementation of social distancing measures (e.g. school closures) and/or recommendations for teleworking in order to slow transmission of the virus. Such measures may reduce the acute burden on healthcare systems and possibly delay and/or reduce the peak of an outbreak. In this phase, routine surveillance systems for COVID-19 should be established. It may be essential to simplify case reporting and reduce the intensity of contact tracing. Citizens should be advised on what they can do to reduce pressure on the healthcare system, such as staying at home if they feel ill, and calling the national helpline for health information.

In this scenario, the objective of containment would be assessed as not realistic anymore. Therefore more emphasis would be put on measures related to contingency and mitigation. A challenge would be the pressure on the healthcare system, especially if increased number of cases overlap with the peak of the influenza season.

Q How big and how serious could this outbreak potentially get?

A. COVID-19 is caused by a contagious newly identified virus, there are no therapeutics and vaccines available and there is presumably no pre-existing immunity in the population. Symptoms of COVID-19 range from no symptoms (asymptomatic) to severe pneumonia and can lead to death. The evidence from analyses of cases to date is that 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. The great majority of the most severe illnesses, and deaths, have occurred among the elderly and those with other chronic underlying conditions. If the virus spreads rapidly, and, if widespread transmission is not prevented, there could be a serious public health impact with substantial fatal outcomes in high-risk groups and economic- and societal disruption.

Q. How does ECDC assess the risk?

A. The overall risk is assessed as a combination of the probability of infection and the impact of the infection if acquired. These elements are first assessed separately and then combined to produce an assessment of the overall risk level (very low, low, moderate, high, very high).

ECDC's current assessment of the risk to the EU/EEA population, to EU/EEA citizens travelling to or resident in areas with ongoing community transmission and to health system capacity during the peak of the influenza season can be found here: <https://www.ecdc.europa.eu/en/current-risk-assessment-novel-coronavirus-situation>

Q. Does the infection of healthcare workers make this outbreak more concerning? What issues does it raise?

A. Both SARS-CoV and MERS-CoV have been linked to nosocomial outbreaks or super-spreading events. In the past, systematic implementation of infection prevention and control measures were effective in controlling both SARS-CoV and MERS-CoV. From what we know about COVID-19, this should be the case as well and ECDC recommends the systematic implementation of IPC measures ([recent guidance](#) on this was published by ECDC).

Q. If we see sustained transmission in EU/EEA as we do in China: what changes are needed in addition to what we are doing now?

A. In the event that we would see sustained transmission here in Europe, we would need to activate pandemic preparedness plans, which exist in all EU countries. This would mean more focus on non-pharmaceutical countermeasures, such as ensuring that health systems have the capacity and staff to isolate and treat increased numbers of COVID-19 patients. With sustained community transmission in Europe, we would need to continue to have very clear risk communication so that the public knows the facts and is able to understand and comply with public health advice.

Q. What would be a tipping point for this outbreak (either direction: pandemic or phasing out)?

A. If we began to see sustained, widespread community transmission in settings outside of China, this would constitute a tipping point toward classification as a pandemic. In such a case, we could expect to see increased pressure on health systems and other functions. Conversely, if we saw declines in the number of people infected by each positive case, and less sporadic transmission outside of and within China, this would mean that the epidemic is being brought under control and is no longer a pandemic.

Q. What is the risk for spread of COVID-19 in Africa?

A. Given the large presence of Chinese nationals and activities in several African countries, many countries in Africa are considered at potential increased risk of introduction of COVID-19 from China. If these cases went undetected due to limited surveillance capacity in some African countries, this might pose a threat for Europe due to its proximity and frequent connections.

As of 1 March, Algeria, Egypt and Nigeria had reported one case each. Six cases with were identified in France linked to a trip to Egypt, and two in Canada.

ECDC has been in contact with WHO and African CDC to gather information about the situation and several African countries are currently stepping up their preparedness against COVID-19. According to a recent report published on [medRxiv](#), the African countries at the highest importation risk of COVID-19 have moderate to high capacity to respond to outbreaks, while other countries at moderate risk of importation of COVID-19 have a more variable capacity and high vulnerability.

ECDC continues to closely monitor the situation through epidemic intelligence and timely information exchanges with African CDC and WHO.

Q. What is ECDC's take on using face masks to prevent transmission?

A. Regular face masks (e.g. surgical masks) can help prevent the further spread of infection from those who are sick to others around them. However, a regular face mask worn by a healthy person does not prevent him/her from getting infected. Health care professionals managing patients with suspected or confirmed COVID-19 infections are advised to wear personal protective equipment, including a well-fitted FFP3 respirator when performing aerosol-generating procedures. For more information, see [ECDC technical report on personal protective equipment](#).

Options for response: containment and prevention measures**Q Experts are talking about moving from containment to mitigation. What does "mitigation" rather than "containment" mean in practice?**

This change happens when there is widespread community transmission and means stopping containment activities (e.g. contract tracing, entry controls, travel restrictions etc.), and moving focus to dealing with the cases within the health system.

Q. How should EU/EEA countries contain the virus?

A. The first step to prevent the spread of the virus in the EU/EEA is the timely detection of imported cases, applying appropriate infection prevention and control measures around the cases and, as needed, tracing contacts.

EU/EEA countries should review their procedures for informing incoming and outgoing passengers from/to [areas of presumed community transmission](#) concerning COVID-19 at their Points of Entry (PoE) and provide advice for persons who develop COVID-19-compatible symptoms after their return, in accordance with national planning. Member States may consider guiding these cases to a particular call centre or healthcare facility, depending on their planning.

It is important for EU/EEA countries to focus on containment measures that prevent and/or limit secondary transmission in the community and healthcare settings. To this end, countries should ensure early detection, laboratory confirmation, appropriate management and isolation of suspected, probable and confirmed cases under appropriate IPC conditions, along with rigorous tracing and follow-up of contacts.

Once local transmission chains are established and have been identified, public health resources will be better used to focus on mitigation measures.

To support EU/EEA Member States, the European Commission is promoting rapid exchange of information between Member States through the Early Warning and Response System ([EWRS](#)) and through the Health Security Committee. Further support is provided by ECDC and the European Commission to reviewing the preparedness of laboratories, health systems and hospitals. ECDC and WHO Europe have provided a series of supporting documents including a case definition, protocols for laboratory testing, and rapid risk assessment.

Q. Is it necessary to set up a quarantine of entire areas of the country like in China?

A. Control measures to minimise further transmission of the virus are guided by available information of the magnitude of this outbreak and the speed with which it is spreading.

Quarantine measures, if implemented comprehensively and safely, can be effective in limiting and slowing the introduction of a novel pathogen into a population.

However, there are considerable logistical, social and communication challenges in implementing quarantine measures. Implementing them for subsets of healthy populations with ill-defined or limited exposure is unlikely to be an efficient use of resources. Quarantine is unlikely to be effective as soon as multiple cases are introduced into EU/EEA countries and the UK from places other than China.

At this stage, the best way to reduce the spread of infection is the rapid identification and testing of suspect cases, and the identification and monitoring of close contacts. The population should be made aware of behaviours reducing the risk of transmission, e.g. hand and respiratory hygiene, self-isolation at home and seeking medical advice, should symptoms develop after exposure to one of the affected areas or a confirmed COVID-19 case.

Q. Are school closures effective?

A. Evidence originating from seasonal and pandemic influenza modelling studies have shown that proactive school closures before the peak of influenza virus activity have had a positive impact in reducing community transmission and delaying the peak of the influenza activity. COVID-19 does not appear to cause important illness or severity in children; however it is not known if children play an important role in transmission of the virus. Therefore proactive school closures to reduce the transmission of COVID-19 should be carefully considered on a case-by-case assessment, weighing the expected impact of closures on the epidemic against the adverse effects of such closures on the community, such as the need for parents or caregivers to take possibly prolonged leave from work.

Q. What measures can be taken in the workplace?

A. Workplace measures refer to a variety of actions to reduce the risk of transmission by decreasing contact opportunities in the workplace and the community. These measures could include for example: flexible working schedules/shifts for employees, the opportunity of distance working/teleworking, encouraging physical distancing measures within the workspace, increased use of email and teleconferences to reduce close contacts, reduced contact between employees and customers, reduced contact between employees, adoption of flexible leave policies and promoting the use of other personal protective countermeasures.

COVID-19 can be transmitted from person-to-person at workplaces and in other public settings where people gather in closed spaces more than 15 minutes. Viral transmission may therefore be reduced by decreasing the frequency and length of social interactions and the physical contacts between individuals.

Q. What is your recommendation on the cancellation of mass gatherings, such as big sports events?

A. Mass gatherings, such as sports events, concerts, religious events and conferences increase the number of close contacts between people for long periods, sometimes in contained spaces. Therefore, mass gatherings may lead to the introduction of the virus into the community hosting the event and/or facilitate virus transmission and spread. Measures to reduce the risk posed by mass gatherings include interpersonal distancing measures to avoid crowding and organisational measures, such as cancellation or postponement of an event. The decision to cancel will need to be coordinated by the organiser and the public health and other national authorities on a case-by-case basis. Data originating from seasonal and pandemic influenza models indicate that during the mitigation phase, cancellations of mass gatherings before the peak of epidemics or pandemics may reduce virus transmission.

Due to the significant secondary effects (social, economic, etc.) of social distancing measures, the decision on their application should be based on a case-by-case risk assessment, depending on the impact of the epidemic and the local epidemiological situation.

Q. Are travel restrictions effective?

A. Although WHO considers that the comprehensive measures taken by local authorities in China, which included severe travel restrictions have had a delaying effect on the epidemic within China and internationally, in general, travel restrictions at international borders or within national borders are neither efficient nor effective against outbreaks of respiratory disease, unless they can be implemented comprehensively. During the 2009 influenza pandemic, such comprehensive measures were shown to be feasible and effective only on isolated, small island countries.

Q. What precautions should be taken by travellers?

A. Travellers going to [areas of presumed ongoing community transmission](#) should avoid contact with sick persons, in particular those with respiratory symptoms. They should also practice good hand hygiene. Travellers who develop acute respiratory symptoms within 14 days of returning from [areas of presumed ongoing community transmission](#) should be advised to seek immediate medical attention and indicate their travel history to the healthcare specialist.

Q: What is your advice to people in areas with ongoing transmission?

A. In areas of presumed community transmission, people should adhere to strict hygiene measures:

- Wash hands with water and soap regularly and/or use alcohol-based hand sanitisers.
- Avoid touching the face with the hands.
- Keep distant to sick people and cough and sneeze into the elbow or cover mouth and nose.

It should especially be emphasised that people of older age and with underlying conditions should take precautionary measures and adhere to strict hygiene practises.

Travellers returning from areas of presumed community transmission should monitor their health status for 14 days. Should they develop respiratory symptoms, a healthcare specialist should be contacted. If the health status allows, they should preferably contact their healthcare specialist via telephone first, and indicate the travel history before seeking medical attention. Symptomatic people should avoid contact with other people until seen by a health care specialist.

Q. How effective are measures such as entry screening and quarantine for passengers travelling from affected areas?

A. Entry screening for COVID-19 involves the use of thermal scanning and/or symptom screening. Scientific evidence does not support entry screening as an efficient measure for detecting incoming travellers with infectious diseases, especially in this case where the symptoms of the disease are very common and the timeline coincides with the increased activity of seasonal influenza in Europe and China. Modelling work by ECDC has assessed the effectiveness of entry screening in detecting travellers infected with the causative agent of COVID-19 to be low. Approximately 75% of cases from affected Chinese cities would arrive at their destination during the incubation period and thus remain undetected.

Quarantine measures, if implemented comprehensively and safely, can be effective in limiting and slowing the introduction of a novel pathogen into a population.

However, there are considerable logistical, social and communication challenges in implementing quarantine measures. Implementing them for subsets of healthy populations with ill defined exposure is unlikely to be an efficient use of resources.

At this stage, the best way to reduce the spread of infection is the rapid identification and testing of suspect cases, and the identification and monitoring of close contacts. The population should be made aware of behaviours reducing the risk of transmission, e.g. self-isolation at home and seeking medical advice, should symptoms develop after exposure to one of the affected areas or a confirmed COVID-19 case. (See [ECDC's template leaflet for travel advice relating to COVID-19](#) and [the Guidelines for the use of non-pharmaceutical measures to delay and mitigate the impact of COVID-19](#)).

Q. Several cruise ships have been quarantined recently: given how easily and rapidly viruses spread in such an environment, should cruises be stopped until the outbreak is over?

A. While there is increased attention due to recent reports of COVID-19 on several cruise ships, any setting where humans gather and are in close contact has the potential to favour the spread of infections. Clear protocols for infection prevention and, if infection is detected, infection control, are important to have in place on cruises and in similar settings.

Options for response: mitigation

Q. Who should be tested for the virus?

A. ECDC has developed a [case definition for surveillance](#) that states which suspected cases that would require diagnostic testing.

Q. What are the national measures considered so far most effective? Should governments take additional coordinated measures?

A. As soon as cases are identified, infection prevention and control and appropriate hygiene measures for respiratory infections that spread via droplets are required. Isolation of cases and appropriate personal protective measures following national recommendations will also minimise the risk of nosocomial transmission.

Promotion of hand and respiratory hygiene within the population is also important to reduce transmission.

Healthcare providers should be aware of the ongoing event and the cluster of cases with COVID-19. There is evidence that this virus could potentially cause impactful outbreaks in healthcare and other settings.

Healthcare workers in the EU/EEA and the UK need to be aware and vigilant in order to detect possible COVID-19 cases early and apply appropriate infection control measures when handling patients.

In the past, systematic implementation of infection prevention and control measures were effective in controlling both SARS-CoV and MERS-CoV.

The control measures that have been implemented so far are based on what is known of this novel virus and the outbreak in Northern Italy. This is a highly dynamic situation and the information currently available on this cluster of cases with COVID-19 is limited. Options for response might change when more data become available and if additional information from ongoing investigations highlights the need for new or more extensive measures.

Q. Are European laboratories ready to detect COVID-19?

A. Through a survey, ECDC assessed the preparedness of EU/EEA laboratories to detect the causative agent of COVID-19 and found that European specialised laboratory networks have implemented molecular diagnostics quickly and with good geographical coverage.

The laboratories were asked to indicate their weekly capacity for molecular testing for the causative agent of COVID-19. Of the 47 participating laboratories, 38 indicated a total capacity of minimum 8 275 tests per week.

At the time of the survey, an additional eight laboratories were in the process of implementing molecular diagnostics and these laboratories would, combined, add a minimum capacity of 875 tests per week once this process was completed. (see *Eurosurveillance* rapid communication from 13 February 2020: <https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2020.25.6.2000082>)

Q. Do all people who are confirmed with disease need to be isolated and treated in hospitals?

A. Patients with a mild clinical presentation may not require hospitalisation. Models are being tested to see how patients with mild symptoms can be isolated and treated at home. However, clinical signs and symptoms may worsen with progression to lower respiratory tract disease in the second week of illness; all patients should be monitored closely and hospitalised if necessary. Possible risk factors for progressing to severe illness may include, but are not limited to, older age, pregnancy and underlying chronic medical conditions such as lung disease, cancer, heart failure, cerebrovascular disease, renal disease, liver disease, diabetes, and immunocompromising conditions.

ECDC's role and collaborations

Q. What is ECDC's role in this outbreak?

A. ECDC is monitoring this event through global epidemic intelligence and the collection of comprehensive information on cases detected in EU/EEA countries. ECDC provides daily risk assessments and technical documents and guidance to support EU Member States and the EU Commission in their response activities.

Outbreak investigations are ongoing, and ECDC will provide updated guidance and information as it becomes available.

ECDC is keeping its website updated continuously, including during weekends. Our daily situation updates and risk assessments are being used by the general media and medical press to communicate to the general population. We have created and promoted a dedicated webpage and are utilising all social media

channels. Furthermore, ECDC gave many interviews to media across the continent over the last weeks to update the public and share information on the facts about COVID-19 ([Q&As for the public](#)). We are also intensely liaising with our networks of public health professionals and authorities in MS. In particular with the ECDC NFPs for surveillance, for preparedness and threat detection, and through the EWRS network. We are in constant communication with the European Commission.

All relevant documents and epi updates are published on the related outbreak page:

<https://www.ecdc.europa.eu/en/novel-coronavirus-china>

<http://bit.ly/COVID19ECDC>

Q. Could ECDC comment on the European (and global) cooperation and concerted efforts taking place, and whether measures taken are consistent and aligned between the MS?

A. Through the Early Warning and Response System (EWRS), ECDC and the European Commission have a constant, detailed and up-to-date overview of actions and measures that are undertaken or planned in Member States. The European Commission organises regular teleconferences with EWRS focal points (2-3 times a week) during which experiences are shared and measures are aligned through a common understanding of the situation and the effectiveness of the various measures. These meetings are also attended by the WHO Regional Office for Europe.

We have close cooperation with WHO Europe – we liaise with them on surveillance and contact tracing of cases (work in progress) and consult each other before any major strategic or operational change.

Disease determinants and associated factors

Q. Diseases, epidemics, and pandemics have always existed: why should we be more worried today? We are supposed to have better response capabilities today than in the past. What role does greater population density and the ability to travel play?

A. Given that this is a new virus, there is not yet any natural immunity among segments of the population to the causative agent of COVID-19. As we have seen in this outbreak, the high level of global air travel means that populations move and mix at a more rapid pace than ever before in history. This also means that infectious diseases can spread extremely quickly. Consequently, public health authorities must remain vigilant and collaborate closely on these issues of cross-border health threats. The strong collaboration that we have seen across borders within the EU and globally is a testimony that this is occurring during this outbreak.

Q. What kind of effects is climate change having on the risk of a global pandemic?

A. Given the uncertainties around the origin of COVID-19, there is currently no known link to climate change. Still, climate change is one of many important factors driving infectious disease spread, alongside human and animal population dynamics, intense global levels of trade and travel, changing patterns of land use, among others. Thus, one important area of ECDC activity is to further quantify and examine the links between climate change and other determinants of communicable diseases.

Q. What impact does Brexit have on the UK for handling this outbreak?

A. 2020 is a transition period, which means that the UK still has access to epidemiological surveillance network tools such as TESSy and EWRS. Information sharing between health professionals in UK and Europe is very good and we expect this to remain as such after Brexit is implemented.

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