

Increased transmission of COVID-19 in the EU/EEA and the UK – thirteenth update

23 October 2020

Summary

Current epidemiological situation across EU/EEA countries and the UK

Across the European Union/European Economic Area (EU/EEA) and the United Kingdom (UK) there has been a considerable further increase in COVID-19 infections and the current situation represents a major threat to public health. In most countries, notification rates have increased in certain regions, with extremely high levels in some areas. Moreover, in addition to the substantial increases seen in most countries among younger age groups, notification rates have also increased in older age groups. Reported test positivity has been steadily increasing since August and has shown a marked escalation in recent weeks, pointing to a real increase in rates of viral transmission, rather than just a rise in reported cases attributable to increased testing. Vulnerability to infection remains high, as available data from seroprevalence studies indicate that the level of immunity in the population is <15% in most areas of the EU/EEA and the UK.

As the epidemiological situation has worsened across the region, the impact in terms of pressure on healthcare services and mortality has become increasingly evident. Data on hospital and intensive care unit (ICU) admissions and occupancy are incomplete for most EU/EEA countries and the UK, but available data indicate that the situation is deteriorating, with increasing trends reported in most countries. Recent estimates suggest that levels of hospital and ICU occupancy across the region are now at around a third of the peak that occurred during the spring. Options for treatment of individuals with severe infection remain largely supportive. Many countries have reported increasing death rates, and the overall death notification rate has been rising for over a month. Although case fatality rates are currently lower than they were earlier in the year, due to increased detection among young people and/or improved care for patients with severe COVID-19, there is a high likelihood that these rates will continue to rise. In fact, with high levels of community transmission, the protection of medically vulnerable individuals becomes more difficult and, it is inevitable that more individuals who are not considered medically vulnerable will develop severe disease.

The current epidemiological situation in most countries is a serious concern as it poses an increasing risk of transmission, requiring immediate, targeted public health action.

What are the risks being assessed in this update?

In this update, we assess the risk for the general population and vulnerable individuals in relation to the increase in COVID-19 notification rates in the EU/EEA and the UK.

Under the current classification system, based on epidemiological indicators, the epidemiological situation in countries is classified as stable, of concern or of serious concern. The majority of countries in the region are currently classified as experiencing an epidemiological situation of serious concern due to the increasing case notification rates and/or test positivity $\geq 3\%$ as well as the high notification rates in the older age groups and/or high mortality rates. EU/EEA countries and the UK have implemented various non-pharmaceutical

interventions but these have not been sufficiently effective in controlling transmission due to several factors: adherence to the measures was sub-optimal; the measures were not implemented quickly enough; or the measures were insufficient to reduce exposure. As a result, the epidemiological situation is now rapidly deteriorating in most countries. Consequently, in countries where the epidemiological situation is of serious concern, there is a **high** risk to the general population, and for vulnerable individuals the COVID-19 epidemiological situation represents a **very high** risk.

Based on the latest available data to ECDC, there are currently no countries categorised as having an epidemiological situation 'of concern'.

In the countries where the epidemiological situation is of serious concern, the continuously increasing trend in notification rates calls for strong public health action in order to prevent the imminent risk that healthcare systems will be overwhelmed, rendering them unable to provide safe, adequate care.

There are currently only six countries in the region that are classified as experiencing a stable epidemiological situation. In these countries the probability of infection for the population is generally low but the impact of infection still varies depending on the individuals affected. The risk for the general population in these countries is **low**. However, for vulnerable individuals, including the elderly and people with underlying medical conditions, the risk is **moderate**. Nevertheless, in these six countries, there is still ongoing transmission and the situation must be closely monitored.

Options for response

At this stage, non-pharmaceutical interventions adapted to the local epidemiological situation, accompanied by clear, targeted communication messages to the public remain the fundamental elements of the public health approach to controlling transmission. A strong call for collective action is needed whereby the population is reminded of its key role in bringing the pandemic under control. Government and public health officials urgently need to re-motivate people to follow recommendations, by making clear that there will be a substantial impact on public health, the economy and society if the epidemiological situation continues to deteriorate.

Countries should continue to implement measures to reduce transmission in the general population, such as advocating physical distancing, including the avoidance of large gatherings, promoting hand and respiratory etiquette, encouraging the appropriate use of face masks, and implementing best practices in infection prevention and control in healthcare and residential settings. Where necessary, these measures can be scaled up and countries may need to close public spaces and introduce stay-at-home recommendations as a last resort. These measures can be adopted at national or sub-national level, based on a comprehensive assessment of the local situation, using a transparent decision-making process that is clearly communicated to the public in a timely manner.

Public health authorities should reinforce healthcare capacity to manage potentially high numbers of COVID-19 patients and ensure that health services do not become overwhelmed. Efforts must be made to protect vulnerable individuals and healthcare workers, and to minimise the risk of transmission in long-term care facilities and other settings at high risk of COVID-19 outbreaks. Easy and timely access to testing is critical in order to identify infections in the community, to have a clear understanding of the evolving epidemic and to optimise the effectiveness of measures such as case isolation and contact tracing. If the number of suspected cases exceeds the available testing capacity in a country or an area, testing needs to be directed towards priority groups. Countries should also ensure that adequate supplies of medical equipment, personal protective equipment, laboratory reagents and consumables are available to prevent shortages due to the high demand worldwide.

Event background

The timeline of the major events can be found on ECDC's website: <https://www.ecdc.europa.eu/en/covid-19/timeline-ecdc-response>.

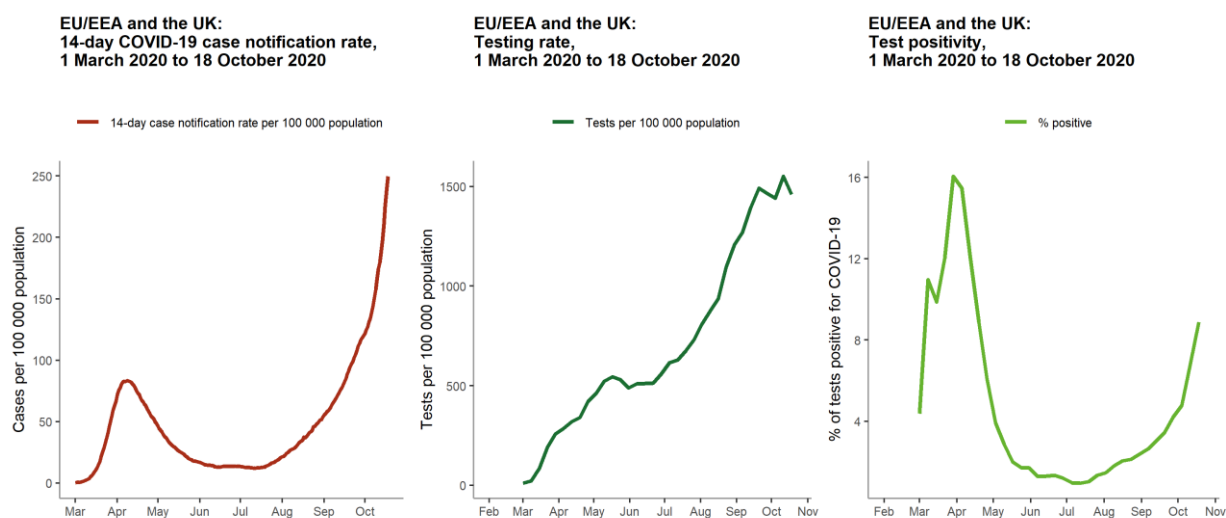
The latest available data on the number of cases and the number of deaths globally is published daily on ECDC's website: <https://www.ecdc.europa.eu/en/covid-19/situation-updates>.

Epidemiological situation

From 1 March to 18 October 2020, EU/EEA countries and the UK have reported 4 825 350 cases and 202 551 deaths (representing 12% of all cases and 18% of all deaths reported worldwide during this period) due to COVID-19. By the end of week 42 (12–18 October 2020), the 14-day COVID-19 case notification rate for the EU/EEA and the UK was 249.8 per 100 000 population (Figure 1, Panel A). The overall 14-day case notification rate has been increasing for over three months (91 days). There is substantial variation between national 14-day case notification rate levels per 100 000 population (country range: from 35.9 in Estonia to 875.1 in Belgium). However, high levels (at least 60 per 100 000) or sustained increases (for at least seven days) in the 14-day case notification rates compared with the previous week have been observed in all EU/EEA countries and the UK, apart from Estonia, Greece and Norway.

In general, notification rates are highly dependent on several factors, including the testing rate. Testing rates for week 42, available for 28 countries, varied from 509 to 7 731 tests per 100 000 population (Figure 1, Panel B). Luxembourg had the highest reported testing rate for week 42. In week 42, the weekly test positivity was high (defined as $\geq 3\%$), or had increased compared to the previous week in 19 countries, varying between 1.2% in Denmark and 26.3% in Czechia. The test positivity has been steadily increasing in the EU/EEA and the UK since August, and has shown a marked escalation in recent weeks. This rise in notifications indicates increased viral transmission rather than just being attributable to increased testing (Figure 1, Panel C).

Figure 1 Panel A. EU/EEA and the UK: 14-day COVID-19 case notification rate from 1 March to 18 October 2020. Panel B. EU/EEA and the UK: testing rate from 1 March to 18 October 2020. Panel C. EU/EEA and the UK: test positivity (%) from 1 March to 18 October 2020



**Data on new cases is available for 31 EU/EEA countries and the UK, and testing data is available from up to a maximum of 30 countries. Due to variation in the number of countries with testing data, the population denominator used to estimate the rates shown in the figures varies accordingly from week to week.*

At the sub-national level, there is still variation within and across countries, ranging from a few regions in Estonia having reported no cases in the last 14 days, to several regions in a number of other countries reporting an incidence higher than 240 per 100 000 population (Figure 2). Twenty-two EU/EEA countries have at least one region with 14-day COVID-19 case notification rates reported to be over 240 per 100 000 population. For the period analysed, comparing weeks 41/42 with weeks 40/41, an increasing trend in the 14-day COVID-19 case notification rate was seen in at least some regions of all countries, while a decrease was only seen in a limited number of regions (Figure 3).

Figure 2. EU/EEA and the UK: 14-day COVID-19 case notification rate at sub-national level, weeks 41-42 2020

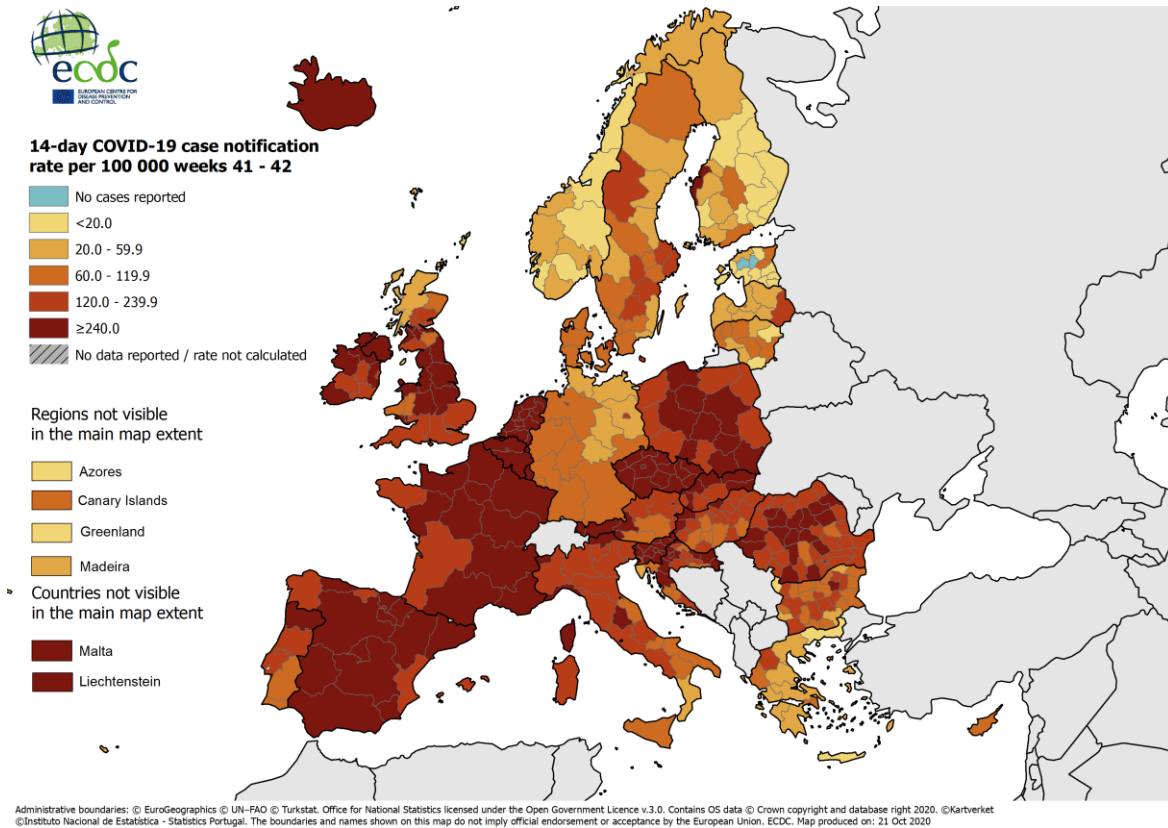
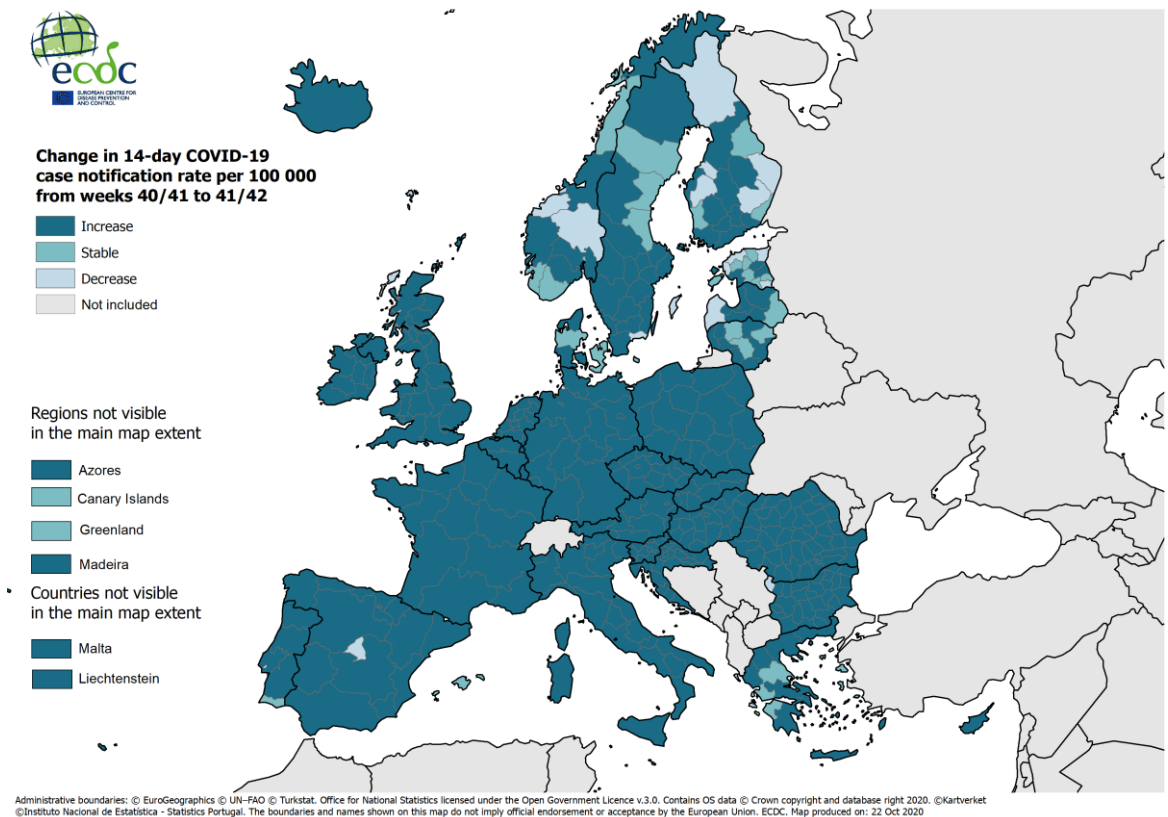


Figure 3. EU/EEA and the UK: change* in 14-day COVID-19 case notification rate at sub-national level between weeks 40/41 and weeks 41/42 2020

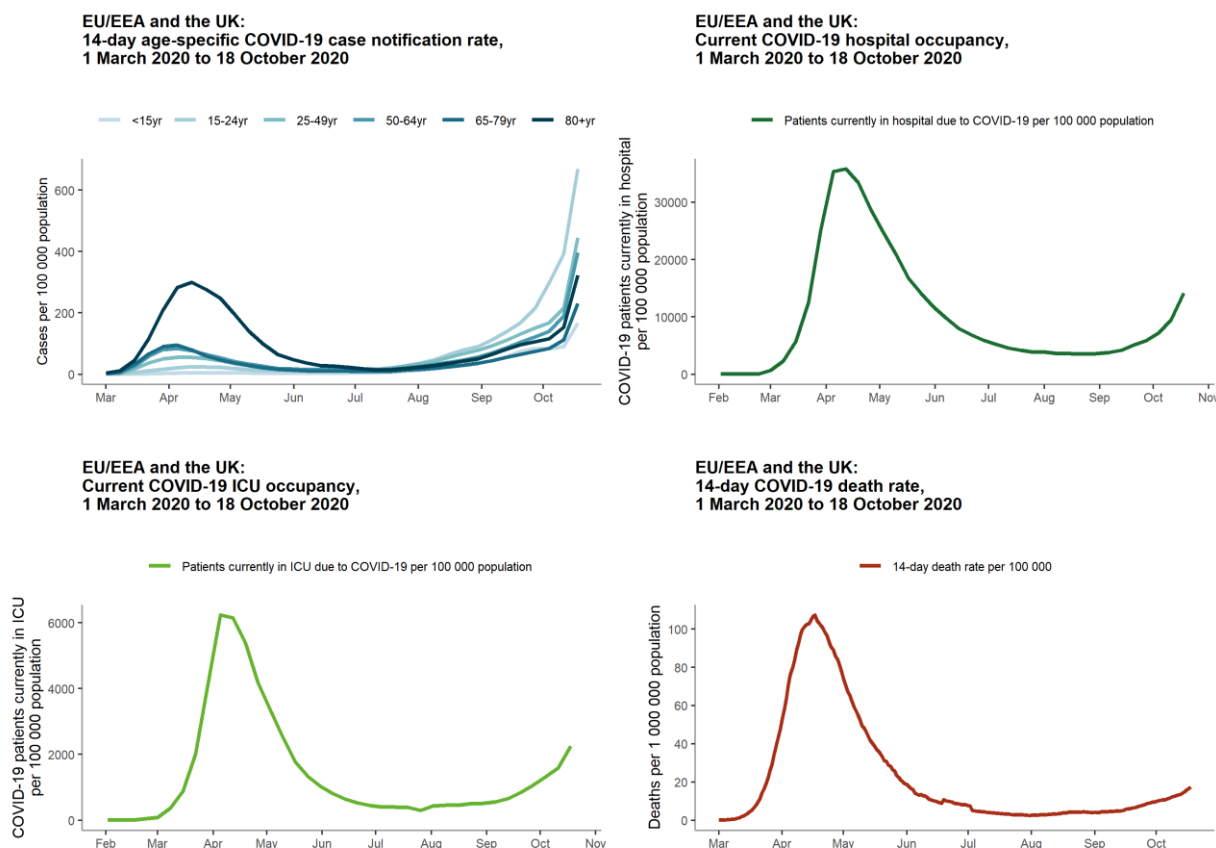


* Trend for day x compares 14-day rate on day x with that on day x-7. Regions with low 14-day notification rates (10% or an absolute rate change of >10 per 100 000) or which do not meet the criteria for an increasing/decreasing trend are classified as stable trend. Increasing/decreasing trend defined as a relative rate change of >10% or an absolute rate change of >10 per 100 000.

Improved testing rates have continued to show increased detection of cases in younger age groups. However, in most countries, recent 14-day case notification rates have been increasing also in older age groups. Based on data reported to The European Surveillance System (TESSy) from 12 countries for week 42 high levels (at least 60 per 100 000) or sustained increases in the 14-day COVID-19 case notification rates compared to the previous week have been observed among people over 65 years of age in 8 of those countries, giving rise to the overall sharp upturn in the age-specific COVID-19 case notification rate for these older age groups (Figure 4, Panel A).

As of week 42, hospital or ICU indicators (admissions or occupancy rates) were high (at least 25% of the peak level during the pandemic) or had increased compared to the previous week in 21 countries. For the hospital indicators, it must be noted that the data availability for different indicators varies between countries. As of week 42, the reported rate of hospital occupancy was 4.3 COVID-19 patients in hospital per 100 000 population (data from 19 countries). This is 32% of the reported COVID-19 hospital occupancy at the peak in week 14 (30 March to 5 April 2020), when it reached 13.5 COVID-19 patients in hospital per 100 000 population (data from 16 countries) (Figure 4, Panel B). Similarly, on week 42, the value of ICU occupancy was 0.9 patients per 100 000 population (data from 15 countries), which represents the 33% of the reported peak ICU occupancy rate on week 14, when it reached 2.9 COVID-19 patients in ICU per 100 000 population (data from 15 countries) (Figure 4, Panel C).

Figure 4. Panel A. 14-day age-specific COVID-19 case notification rate in the EU/EEA and the UK* from 1 March to 18 October 2020. Panel B. Hospital occupancy for COVID-19 cases in the EU/EEA and the UK* from 1 March to 18 October 2020. Panel C. ICU occupancy for COVID-19 cases in the EU/EEA and the UK* from 1 March to 18 October 2020; Panel D. Death notification rates in the EU/EEA and the UK* from 1 March to 18 October 2020



*Data on new deaths is available for 31 EU/EEA countries and the UK, hospital occupancy data is available from up to a maximum of 21 countries, ICU occupancy data from up to 18 countries, and age-specific case rates from up to 23 countries. Due to variation in the number of countries with data for these indicators the population denominator used to estimate the rates shown in the figures varies accordingly between weeks.

The 14-day COVID-19 death rate for the EU/EEA and the UK, based on data collected by ECDC from official national sources from 31 countries, was 17.4 (ranging from 0.0 in Liechtenstein to 60.2 in Czechia) per million population. The rate has been increasing for 37 days (Figure 4, Panel D). High levels (defined as at least 10 notified deaths per million population) or sustained increases (for at least seven days) in the 14-day COVID-19 death rates compared to those reported seven days ago were observed in 18 countries. Overall, pooled estimates of all-cause mortality reported by EuroMOMO for week 42 show a slight increase in excess mortality for the participating countries, but this is limited to two countries (Belgium and Spain) [1]. Both for the reported surveillance death notifications and for all-cause mortality figures, delays in the reporting of fatal outcomes need to be taken into account.

Non-pharmaceutical interventions

Since the last rapid risk assessment, published on 24 September, most EU/EEA countries and the UK have scaled up non-pharmaceutical interventions to respond to increasing transmission. This scale-up may not yet have had an impact on the observed epidemiological trends in all countries.

Many of the non-pharmaceutical interventions that have been implemented at national level relate to further restrictions on public and private gatherings, the use of face masks, and actions for international travellers including advice to avoid unnecessary travel and to quarantine upon return. Detailed information on the measures implemented at national level are available in the Weekly COVID-19 country overview [2].

As of 21 October 2020, Ireland has implemented national stay-at-home recommendations [3], while similar strict non-pharmaceutical interventions have been implemented in several countries at regional or local level, reflecting the high degree of heterogeneity at the sub-national level. These regional/local measures include the imposition of stay-at-home orders (including curfews) and cordon sanitaires, along with the partial closure of non-essential shops and public spaces, as implemented in Belgium [4] France [5], Italy [6], Slovenia [7], Spain [8] and the UK [9].

Disease background

For information on the latest scientific evidence on COVID-19, please visit ECDC's website:

<https://www.ecdc.europa.eu/en/2019-ncov-background-disease>

ECDC risk assessment for the EU/EEA and the UK

This assessment is based on information available to ECDC at the time of publication and, unless otherwise stated, the assessment of risk refers to the risk that existed at the time of writing. It follows the ECDC rapid risk assessment methodology, with the overall risk determined by a combination of the probability of an event occurring and its consequences (impact) for individuals or the population [10].

Risk assessment question

Given the marked increase in notification rates observed in the EU/EEA and the UK, what risk does the COVID-19 pandemic pose to the general population and vulnerable individuals?

ECDC has developed epidemiological criteria to categorise the epidemiological situation in countries as being 'of concern' or 'of serious concern' (see Annex 1). Countries whose epidemiological situation does not meet the criteria for being either 'of concern' or 'of serious concern' are categorised as having a 'stable' situation although, as seen in Annex 2, countries in this category may still be reporting high or rising rates for at least one of the parameter values used as criteria.

Countries with an epidemiological situation 'of serious concern'

According to the latest data available to ECDC, the countries whose rates and/or trends cause them to be categorised as of serious concern include Austria, Belgium, Bulgaria, Croatia, Czechia, Denmark, France, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, Spain, Sweden and the United Kingdom. These countries have been categorised as 'of serious concern' on account of having high or increasing case notification rates and/or test positivity $\geq 3\%$, as well as high notification rates in the older age groups and/or high mortality rates. Germany is also included in this group of countries with an epidemiological situation 'of serious concern'. The country also has increasing notification rates in the elderly, however due to technical issues, age-specific notification rates could not be reported through TESSy.

Although there has been a general increase in the levels of testing across all countries, which has resulted in the identification of additional cases who are asymptomatic or have experienced a mild form of the disease, this increase in testing does not explain the full epidemiological picture in these countries. In fact, the concurrent increase in test positivity observed in many countries, which for some has been accompanied by an increase in hospital and ICU admissions, indicates an escalating epidemiological situation. Therefore, the overall probability of infection for the population in these countries is very high.

In many of these countries, the notification rates in some sub-national areas are very high, and rates in other areas have been increasing. A number of the countries have seen a recent escalation in the notification rates for the older groups. This is of particular concern as the elderly are at increased risk of severe disease. Hospital and ICU admissions and occupancy have been increasing and some sub-national areas have already signalled that there is significant pressure on their healthcare services. Treatment of individuals with severe infection remains largely supportive. While improved care and better detection of infections among younger people may partially explain the lower mortality than earlier in the year, countries are already experiencing, or may observe increasing death rates if transmission continues to rise. A detailed analysis of the comorbid status of hospitalised patients may shed light on the evolution of death rates.

All EU/EEA countries and the UK have implemented various non-pharmaceutical interventions, but these have not been fully successful in controlling transmission, and the epidemiological situation is now rapidly deteriorating. Implementing stricter non-pharmaceutical interventions, which proved to be effective in controlling the epidemic in all EU/EEA countries and the UK during spring 2020, appears to be the only available strategy that may have a moderate (as opposed to high) impact on the disease for individuals and healthcare provision. This results in an overall assessment of the general population being at **high risk**. For **vulnerable individuals**, having a very high probability of infection and a very high impact of disease, the overall risk in these countries is assessed to be **very high**.

Countries with an epidemiological situation 'of concern'

Based on the latest available data to ECDC, there are currently no countries categorised as having an epidemiological situation 'of concern'.

Countries with a 'stable' epidemiological situation

According to the latest data available to ECDC, only six countries have a stable epidemiological situation (not fitting the criteria for an epidemiological situation 'of concern' or 'of serious concern'): Cyprus, Estonia, Finland, Greece, Liechtenstein and Norway. The probability of infection for the population in these countries is generally low but the impact of infection still varies depending on the individuals affected. For the **general population**, the impact is assessed as low, and therefore, there is a **low** overall risk of COVID-19 in these countries. However, for **vulnerable individuals**, including the elderly and people with underlying medical conditions, the impact is assessed as very high, resulting in a **moderate** overall risk.

Among these six countries, there is still ongoing transmission and the situation must be closely monitored. All countries should have comprehensive and timely data on COVID-19 cases, testing rates and testing positivity, and they should collect data on key healthcare indicators, such as ICU admissions.

Options for response

The current epidemiological situation in the EU/EEA and the UK requires strong and decisive public health interventions in order to:

- reduce transmission of the infection
 - through the upscaling and targeting of non-pharmaceutical interventions;
 - through testing, isolation and contact tracing.
- protect individuals at higher risk of severe disease and those providing healthcare, and ensure access to healthcare
 - by protecting individuals at higher risk of severe disease;
 - by ensuring access to healthcare;
 - by protecting healthcare workers.

Reduce transmission of the infection

A. Upscaling and targeting of non-pharmaceutical interventions

The following measures aim to reduce transmission in the general population. These measures are the fundamental elements of the public health approach to controlling transmission and should be implemented in accordance with the local epidemiological situation. Countries should:

- ensure that physical distancing between individuals is maintained to the maximum degree possible throughout society;
- promote hand hygiene and respiratory etiquette;
- reduce opportunities for transmission in settings where many people come together, through measures such as teleworking, limitations on indoor/outdoor gatherings, etc.;
- promote the appropriate wearing of face masks;
- ensure strict adherence to evidence-based infection prevention and control measures in all health and social care settings, including long-term care facilities.

Where other measures do not result in decreasing transmission, countries may consider a further scale-up of measures and the closure of public spaces, with stay-at-home recommendations or orders as a last resort. These measures can be adopted at national or sub-national level, based on a comprehensive assessment of the local situation, using a transparent decision-making process that is clearly communicated to the public.

B. Testing, isolation and contact tracing

A robust system of testing with short (<24 hour) turnaround times for results is central to the public health response. Testing strategies should be flexible and rapidly adaptable to change, depending on the local epidemiology, population dynamics and resources.

ECDC's document on COVID-19 testing strategies and objectives is available to support Member States as they look to further strengthen their local testing strategies [11]. It is also important for the Member States to adjust their strategies to include differential diagnostics of other respiratory pathogens, especially influenza, as the winter season approaches. For this reason, ECDC and WHO's Regional Office for Europe have issued joint interim guidance on approaches to influenza surveillance over the winter, against the background of the ongoing COVID-19 pandemic [12]. It is recommended that all patients with acute respiratory symptoms in hospitals and other health and social care settings, especially individuals with underlying conditions and the elderly, are tested for both SARS-CoV-2 and influenza during the upcoming influenza season. The same applies to all specimens from sentinel primary care surveillance which should be tested for SARS-CoV-2 and influenza [11].

Rapid contact tracing of cases, followed by quarantining of contacts, remains important to reduce transmission at all stages of the epidemic. The key principles are outlined in ECDC's guidance on contact tracing [13] which also provides information on how to scale up contact tracing [13]. ECDC has also published guidance on discharging and ending isolation for confirmed cases [14].

While RT-PCR tests remain the operational standard for detection of ongoing infection, especially in cases where precision is key, antigen tests can also be used for this purpose. Rapid antigen tests (RATs) are becoming more readily available and are being increasingly used by Member States as a possible tool for rapid SARS-CoV-2 diagnosis. While these tests are less sensitive than RT-PCR [15-17], they offer the possibility of rapid, inexpensive and early detection of the most infectious COVID-19 cases (i.e. those with a high viral load). RATs with acceptable sensitivity and specificity [15-17] are now available in the EU. RATs are likely to perform best in the immediate pre-symptomatic (1-3 days before symptom onset) and early symptomatic phases of the illness (within the first 5-7 days of illness) [18].

As there is no mechanism for the authorisation of tests at the EU level, tests used for clinical and public health purposes need to be authorised at the national level following WHO [18] or national level minimum performance criteria. Individual rapid antigen test results should be evaluated, taking into consideration the epidemiological situation and virus prevalence at the time of testing, the performance characteristics of the test used and the patient's clinical characteristics. Proper interpretation of test results is important for accurate case management.

Due to the high demand for testing, shortages are expected in the availability of tests, laboratory capacity, material and personnel for sampling and carrying out the tests. The Member States should plan for surge capacity and should ensure supply of materials, as well as training additional staff for sampling and laboratory testing. If the number of suspected cases exceeds the available testing capacity in a country or an area, specific groups (e.g. healthcare workers, elderly people and those with underlying chronic medical conditions) could be prioritised for testing [19].

Protect individuals at higher risk of severe disease and those providing healthcare and ensuring access to healthcare

A. Protecting individuals at higher risk of severe disease

Public health authorities should implement strategies to protect persons at risk of severe COVID-19 disease. This includes helping them to avoid crowded places, both indoors and outdoors, and providing infection prevention and control support, logistic and mental support, access to testing for specific groups, support to enable them to telework, etc.

Whether co-infections with SARS-CoV-2 and influenza viruses or *Streptococcus pneumoniae* contribute to the clinical severity of COVID-19 disease is not yet clear. One non-peer-reviewed scientific manuscript, describing an observational study conducted in the UK, indicated that patients with laboratory-confirmed co-infection with influenza and SARS-CoV-2 had a significantly higher risk of mortality, being placed on a ventilator, or being admitted to an ICU, suggesting possible synergistic effects [20]. No similar studies are available for co-infections with *Streptococcus pneumoniae*, but current recommendations for influenza and pneumococcal vaccinations in medically vulnerable individuals should be prioritised and effectively deployed to mitigate these risks.

Long-term care facilities should rigorously apply measures to minimise the risk of transmission of COVID-19 [21]. Detailed information on measures, for both long-term care facilities and national public health institutes, can be found in the fifth update of ECDC's guidance 'Infection prevention and control and preparedness for COVID-19 in healthcare settings' [21].

Long-term care facilities should designate lead persons or teams to ensure accountability, proper management of resources and implementation of procedures regarding (1) infection prevention and control measures; (2) supplies of personal protective equipment and training; (3) COVID-19 surveillance; (4) SARS-CoV-2 testing for the timely identification and control of outbreaks; (5) access to medical and psychosocial care; and (6) management of visitors.

B. Ensuring access to healthcare

Essential services, primary care facilities and hospitals should ensure appropriate surge capacity, given the possibility of an exponential growth in transmission in some areas. Moreover, the demand for healthcare could further increase with the start of the influenza season. Therefore, public health efforts should focus on strengthening healthcare capacity to manage potentially high numbers of COVID-19 patients, while reducing the risk of collateral harm from sequelae as a result of deferred care. Lessons learned from the first peak of COVID-19 in March–May 2020 should lead to appropriate changes in procedures for infection prevention and control and patient management (e.g. management of respiratory distress [22] with preference for high-flow nasal cannula oxygen in patients with no indications for endotracheal intubation.)

ECDC has developed a checklist for hospitals preparing to treat COVID-19 patients [23]. Countries should also try to ensure that they have adequate supplies of medical equipment and personal protective equipment. Further information can be found in ECDC's 'Health emergency preparedness for imported cases of high consequence infectious diseases' [24], WHO's 'Hospital emergency response checklist' [25], the 'Rapid hospital readiness checklist: harmonised health facility assessment modules in the context of the COVID-19 pandemic' [26], and the US CDC's 'Coronavirus Disease 2019 (COVID-19) Hospital Preparedness Assessment Tool' [27].

C. Protecting healthcare workers

Healthcare workers in hospitals and the community are key front-line workers in the management of the pandemic. Therefore, public health authorities should ensure clear information channels on the local epidemiological situation and access to up-to-date protocols on the management of COVID-19 cases. They should also ensure that ample personal protective equipment and appropriate training is available, and that diagnostic testing is easily accessible [28,29].

Risk communication

The dynamic epidemiological situation needs to be clearly communicated to the populations of all EU/EEA Member States.

Pandemic fatigue – defined by WHO as “demotivation to follow recommended protective behaviours” – has developed into a significant threat to pandemic control [30]. Government and public health officials, as well as other influential people in EU/EEA Member States, need to urgently re-motivate their citizens to follow recommendations [31,32] by making clear that there will be a substantial impact on public health, the economy and society if the epidemiological situation continues to deteriorate. People must be reminded that high infection rates in the general population will significantly increase the strain on healthcare capacity, especially for ICUs. High infection rates will also further the spread to those at greater risk of severe disease, as well as increasing the likelihood of even stricter measures being implemented in the near future to control the spread of the virus.

An urgent call for collective action is needed, reminding the populations of EU/EEA Member States of their key role in bringing the pandemic under control. Messages must be presented in an accessible and emotionally engaging manner and in terms that people can easily relate to. Some specific points are set out below.

- Messages should follow the standard principles of risk communication: be consistent, transparent about uncertainty, and simple to grasp.
- Visualisations may be useful as means of explaining the epidemiological data.
- In line with national recommendations, people should be reminded of activities, situations and places to avoid due to the increased risk of transmission, in particular the 3Cs: crowded places, close contact situations and confined and enclosed spaces [33].
- People who experienced first-hand the stresses of the pandemic earlier in the year (e.g. health workers such as ICU nurses, patients, etc.) can be engaged to tell compelling stories of what they witnessed, and why our individual actions today are so important to ensure that this does not happen again [34].
- Messages should acknowledge the difficulties and strains faced by populations because of the pandemic and the control measures.
- It is also important to provide hope, and to reassure people that the situation will eventually improve: there have been significant developments in our understanding and treatment of the virus, and the deployment of vaccines can be expected in the future.
- The existence of available financial and logistical support mechanisms should be well publicised in order to help people to manage throughout the duration of any stay-at-home or other restrictive measures.

Limitations

This assessment is undertaken on the basis of information known to ECDC at the time of publication and has several key limitations.

The epidemiological data used in this assessment are dependent on availability from Member States through surveillance reporting or publicly available websites. The data not only reflect the epidemiological situation but are also dependent on local testing strategies and local surveillance systems.

It is also important to consider the lag time between infection, symptoms, diagnosis, case notification, death, and death notification. The effects and impact of lifting or imposing response measures may take weeks to be reflected in the population's disease rates.

Assessing the impact of response measures is complex as many countries have lifted or relaxed multiple measures simultaneously. Changes in individual behaviour, compliance with measures, and cultural, societal, and economic factors all play a role in the dynamics of disease transmission.

The assessment of the epidemiological situation and of the effectiveness of the control measures should therefore be interpreted with caution. Moreover, such assessment requires careful consideration of the national and sub-national contexts.

Source and date of request

ECDC internal decision, 19 October 2020.

Consulted experts

ECDC experts (in alphabetic order): Erik Alm, Eeva Broberg, Nick Bundle, Orlando Cenciarelli, Scott Chiossi, Dragoslav Domanovic, Erika Duffell, Tjede Funk, Kari Johansen, Tommi Kärki, John Kinsman, Favelle Lamb, Katrin Leitmeyer, Lorenzo Lionello, Angeliki Melidou, Nathalie Nicolay, Aurea Oradini Alacreu, Emmanuel Robesyn, Andreea Salajan, Ettore Severi, Gianfranco Spiteri, Emma Wiltshire, Andrea Würz.

Disclaimer

ECDC issues this risk assessment document based on an internal decision and in accordance with Article 10 of Decision No 1082/13/EC and Article 7(1) of Regulation (EC) No 851/2004 establishing a European centre for disease prevention and control (ECDC). In the framework of ECDC's mandate, the specific purpose of an ECDC risk assessment is to present different options on a certain matter. The responsibility on the choice of which option to pursue and which actions to take, including the adoption of mandatory rules or guidelines, lies exclusively with the EU/EEA Member States. In its activities, ECDC strives to ensure its independence, high scientific quality, transparency and efficiency.

This report was written with the coordination and assistance of an Internal Response Team at the European Centre for Disease Prevention and Control. All data published in this risk assessment are correct to the best of our knowledge at the time of publication. Maps and figures published do not represent a statement on the part of ECDC or its partners on the legal or border status of the countries and territories shown.

References

1. EuroMOMO. [updated 21 October 2020]. Available at: <https://www.euromomo.eu/>
2. European Centre for Disease Prevention and Control (ECDC). Weekly COVID-19 country overview [cited 21 October 2020]. Available at: <https://www.ecdc.europa.eu/en/covid-19/country-overviews>
3. Government of Ireland, Department of the Taoiseach. Ireland is moving to Level 5 [updated 21 October 2020]. Available at: <https://www.gov.ie/en/publication/2dc71-level-5/>
4. Federal Public Service, Health, Foodchain safety and Environment, Belgium. info-coronavirus.be. Niveau d'alerte 4 de la COVID-19: des règles plus strictes à partir du lundi 19 octobre [updated 16 October 2020]. Available at: <https://www.info-coronavirus.be/fr/news/occ1610/>
5. Ministère des Solidarités et de la Santé, France. Indicateurs de l'activité épidémique [updated 17 October 2020]. Available from: <https://solidarites-sante.gouv.fr/soins-et-maladies/maladies/maladies-infectieuses/coronavirus/etat-des-lieux-et-actualites/article/indicateurs-de-l-activite-epidemique>
6. Regione Autonoma Valle d'Aosta, Italy. Decreti e Ordinanze [cited 21 October 2020]. Available at: https://www.regione.vda.it/pressevda/Eventi/decreti_ordinanze_i.aspx
7. Vlada Republike Slovenije. 36. redna seja Vlade Republike Slovenije [updated 14 October 2020]. Available at: <https://www.gov.si/novice/2020-10-14-36-redna-seja-vlade-republike-slovenije/>
8. Boletín Oficial Del Estado - Spain. Real Decreto 900/2020, de 9 de octubre, por el que se declara el estado de alarma para responder ante situaciones de especial riesgo por transmisión no controlada de infecciones causadas por el SARS-CoV-2 [updated 9 October 2020]. Available at: <https://www.boe.es/boe/dias/2020/10/09/pdfs/BOE-A-2020-12109.pdf>
9. Gov.uk. Local COVID alert levels: what you need to know [updated 12 October 2020]. Available at: <https://www.gov.uk/guidance/local-covid-alert-levels-what-you-need-to-know?priority-taxonomy=774cee22-d896-44c1-a611-e3109c8e8eae>
10. European Centre for Disease Prevention and Control (ECDC). Operational tool on rapid risk assessment methodology [cited 20 October 2020]. Available at: <https://www.ecdc.europa.eu/sites/default/files/documents/operational-tool-rapid-risk-assessment-methodology-ecdc-2019.pdf>
11. European Centre for Disease Prevention and Control (ECDC). COVID-19 testing strategies and objectives [updated 18 September 2020]. Available at: <https://www.ecdc.europa.eu/en/publications-data/covid-19-testing-strategies-and-objectives>
12. European Centre for Disease Prevention and Control (ECDC) and World Health Organization (WHO) Regional Office for Europe. Operational considerations for influenza surveillance in the WHO European Region during COVID-19: interim guidance 2020 [updated 16 October 2020]. Available at: <https://www.ecdc.europa.eu/en/publications-data/operational-considerations-influenza-surveillance-european-region-during-covid-19#no-link>
13. European Centre for Disease Prevention and Control (ECDC). Contact tracing for COVID-19: current evidence, options for scale-up and an assessment of resources needed [updated 5 May 2020]. Available at: <https://www.ecdc.europa.eu/en/publications-data/contact-tracing-covid-19-evidence-scale-up-assessment-resources>
14. European Centre for Disease Prevention and Control (ECDC). Guidance for discharge and ending of isolation of people with COVID-19 [updated 16 October 2020]. Available at: <https://www.ecdc.europa.eu/en/publications-data/guidance-discharge-and-ending-isolation-people-covid-19>
15. Van Walle I, Leitmeyer K, Broberg EK. Meta-analysis of the clinical performance of commercial SARS-CoV-2 nucleic acid, antigen and antibody tests up to 22 August 2020. medRxiv. 2020. 10.1101/2020.09.16.20195917
16. Foundation for Innovative New Diagnostics (FINN). Rapid Diagnostic Tests for COVID-19 [cited 21 October 2020]. Available from: https://www.finddx.org/wp-content/uploads/2020/05/FINN_COVID-19_RDTs_18.05.2020.pdf
17. Dinnes J, Deeks JJ, Adriano A, Berhane S, Davenport C, Dittrich S, et al. Rapid, point-of-care antigen and molecular-based tests for diagnosis of SARS-CoV-2 infection. The Cochrane Database of Systematic Reviews. 2020;8:CD013705. Available at: <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013705/information>
18. World Health Organization (WHO). Antigen-detection in the diagnosis of SARS-CoV-2 infection using rapid immunoassays [updated 11 September 2020]. Available at: <https://www.who.int/publications/i/item/antigen-detection-in-the-diagnosis-of-sars-cov-2infection-using-rapid-immunoassays>
19. European Centre for Disease Prevention and Control (ECDC). Strategies for the surveillance of COVID-19 [updated 9 April 2020]. Available at: <https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-surveillance-strategy-9-Apr-2020.pdf>

20. Stowe J, Tessier E, Zhao H, Guy R, Muller-Pebody B, Zambon M, et al. Interactions between SARS-CoV-2 and Influenza and the impact of coinfection on disease severity: A test negative design. medRxiv. 2020. 10.1101/2020.09.18.20189647
21. European Centre for Disease Prevention and Control (ECDC). Infection prevention and control and preparedness for COVID-19 in healthcare settings - fifth update [updated 6 October 2020]. Available from: <https://www.ecdc.europa.eu/en/publications-data/infection-prevention-and-control-and-preparedness-covid-19-healthcare-settings>
22. US Department of Health and Human Services. National Institutes for Health (NIH). Care of Critically Ill Patients With COVID-19 [updated 9 October 2020]. Available at: <https://www.covid19treatmentguidelines.nih.gov/critical-care/>
23. European Centre for Disease Prevention and Control (ECDC). Checklist for hospitals preparing for the reception and care of coronavirus 2019 (COVID-19) patients [updated 26 February 2020]. Available at: <https://www.ecdc.europa.eu/en/publications-data/checklist-hospitals-preparing-reception-and-care-coronavirus-2019-covid-19>
24. European Centre for Disease Prevention and Control (ECDC). Health emergency preparedness for imported cases of high-consequence infectious diseases [updated 22 October 2020]. Available at: <https://www.ecdc.europa.eu/en/publications-data/health-emergency-preparedness-imported-cases-high-consequence-infectious-diseases>
25. World Health Organization (WHO). Hospital emergency response checklist [updated 9 September 2011]. Available at: <https://www.who.int/publications/i/item/hospital-emergency-response-checklist>
26. World Health Organization (WHO). Rapid hospital readiness checklist: Interim Guidance [updated 26 June 2020]. Available at: <https://www.who.int/publications/i/item/WHO-2019-nCoV-hospital-readiness-checklist-2020.1>
27. US Centers for Disease Control and Prevention (CDC). Preparedness Tools for Healthcare Professionals and Facilities Responding to Coronavirus (COVID-19) [updated 29 July 2020]. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/preparedness-checklists.html>
28. European Centre for Disease Prevention and Control (ECDC). Guidelines for the implementation of non-pharmaceutical interventions against COVID-19 [updated 24 September 2020]. Available at: <https://www.ecdc.europa.eu/en/publications-data/covid-19-guidelines-non-pharmaceutical-interventions>
29. European Centre for Disease Prevention and Control (ECDC). COVID-19 infection prevention and control measures for primary care, including general practitioner practices, dental clinics and pharmacy settings: first update [updated 19 October 2020]. Available at: <https://www.ecdc.europa.eu/en/publications-data/covid-19-infection-prevention-and-control-primary-care>
30. World Health Organization (WHO) Regional Office for Europe. Pandemic fatigue - Reinvigorating the public to prevent COVID-19, September 2020 [updated 20 October 2020]. Available at: <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/publications-and-technical-guidance/2020/pandemic-fatigue-reinvigorating-the-public-to-prevent-covid-19,-september-2020-produced-by-who/europe>
31. Press and Information Office of the Federal Government of Germany. Merkel A. Wir sind jetzt in einer sehr ersten Phase der Corona-Pandemie [updated 17 October 2020]. Available at: <https://www.bundesregierung.de/breg-de/mediathek/kanzlerin-podcast/podcast-coronavirus-1799292>
32. Government of Ireland, Department of the Taoiseach. Statement of An Taoiseach Micheál Martin announcing Ireland moving to Level 5 [updated 20 October 2020]. Available at: <https://www.gov.ie/en/speech/f122e-statement-of-an-taoiseach-micheal-martin-announcing-ireland-moving-to-level-5/>
33. World Health Organization Western Pacific Region (WHO-PAHO). Avoid the Three Cs [updated 20 October 2020]. Available at: https://www.who.int/images/defaultsource/wpro/countries/malaysia/infographics/three-3cs/final-avoid-the-3-cs-poster.jpg?sfvrsn=638335c1_2
34. Government of Victoria – Australia. Families and health workers featured in Victorian coronavirus ad campaign speak up to spark change [updated 26 July 2020]. Available at: <https://www.abc.net.au/news/2020-07-26/faces-behind-emotional-coronavirus-ad-campaign-speak-out/12492936>

Annex 1. Criteria for epidemiological assessment

Epidemiological situation is 'of concern'

A country with at least two of the following:

1. High ($\geq 60/100\ 000$) or sustained increase¹ (≥ 1 week) in 14-day case notification rates
2. High ($\geq 3\%$) or sustained increase (≥ 1 week) in test positivity
3. High ($\geq 60/100\ 000$) or sustained increase (≥ 1 week) in 14-day case notification rates in the older age groups (65-79yr AND/OR 80+yr)
4. High ($\geq 10/1\ 000\ 000$) or sustained increase (≥ 1 week) in 14-day death notification rates.

Epidemiological situation is 'of serious concern'

A country whose epidemiological situation is 'of concern' and in which at least one of criteria 3–4 are met.

Countries whose epidemiological situation does not meet the criteria for being either 'of concern' or 'of serious concern' are categorised as having a 'stable' situation although, as seen in Annex 2, countries in this category may still be reporting high or rising rates for at least one of the parameter values used as criteria.

¹ Definitions of increases for each indicator can be found at <https://covid19-country-overviews.ecdc.europa.eu/>

Annex 2. Epidemiological summary

Figure 5. EU/EEA and the UK: country summary table, data to week ending 18 October 2020

Country	Case rate		Death rate		Positivity (%)		Testing rate		65+yr		Hospital admissions		Hospital occupancy		ICU admissions		ICU occupancy	
	Value	Trends	Value	Trends	Value	Trends	Value	Trends	Value	Trends	Value	Trends	Value	Trends	Value	Trends	Value	Trends
Austria	186		11.1		7.6		1,464		138.3				7.1				1.3	
Belgium	875.1		30.9		12.1		2,691				15.5		17.1				2.9	
Bulgaria	108.4		18.1		14.7		509						19.3				1	
Croatia	180.6		15.2		12.3		962		64.2		8.3		10.4					
Cyprus	64.8		3.4		1.6		2,758											
Czechia	828.4		60.2		26.3		1,955		585.4		8.2		29.3				5.2	
Denmark	97.1		4.3		1.2		4,250		57.4		2.5		1.9				0.3	
Estonia	35.9		0.8		2		765		25.2		0.4		2.6		0.3		0.2	
Finland	52.4		1.1		1.8		1,592		10.9				0.8				0.1	
France	388.8		17.8		12		1,843				7.2		14.4		2		2.6	
Germany	75.6		3		3.4		1,406											
Greece	49.6		8.9		2.4		1,116								0.4			
Hungary	160.8		32.7		12.3		716		105.9				16.2				1.7	
Iceland	315.4		2.8		3.9		3,860		143.9									
Ireland	224.5		8		6.2		2,287		148.2		3.1		5		0.2		0.6	
Italy	132.2		8.4		5.4		1,617						10.7				1	
Latvia	71.5		2.1		2.7		1,517		31.6		2.6		3.6		0.2			
Liechtenstein	244.9		0															
Lithuania	70.1		6.4		2.2		1,724											
Luxembourg	287		13		2.3		7,731		139.3				4.7				0.4	
Malta	231.6		16.2		3.3		3,694		137.8									
Netherlands	509.5		16.7		26		1,150		337.5		1.6				1.5		2.1	
Norway	37.3		0.6		1.6		1,083		12.1				0.5					
Poland	181.9		24.2		15.3		786		12.6				15.1					
Portugal	192.7		16.3		6.9		1,767		101.5		1.6		9.5				1.4	
Romania	218.4		44.6		13.4		924		143.3		94.4						3.6	
Slovakia	292.6		5.1		13.6		1,280		151.8				9					
Slovenia	292.5		6.2		13.6		1,475		109.9		4.1		10.6				1.9	
Spain	312.4		36		11.4		1,406		206.5		7.5				0.6			
Sweden	95.2		2.9		3.7		1,449		41.1						0.2			
United Kingdom	338.2		18.9		5.8		108		119.7		10		8.4					

Notes: Colour of the sparkline denotes the trend in the indicator, based on a comparison of its value with that seven days earlier. Red colour of the sparkline indicates a sustained increasing trend of at least one week duration. Values in the column next to the sparkline are the current value of the indicator for the week shown. No value is shown where data for the most recent week are not available.

Please see also: ECDC COVID-19 country overviews report: <https://covid19-country-overviews.ecdc.europa.eu/>