

PHIRI Rapid Exchange Forum: Ad-Hoc question

Asked by: Belgium

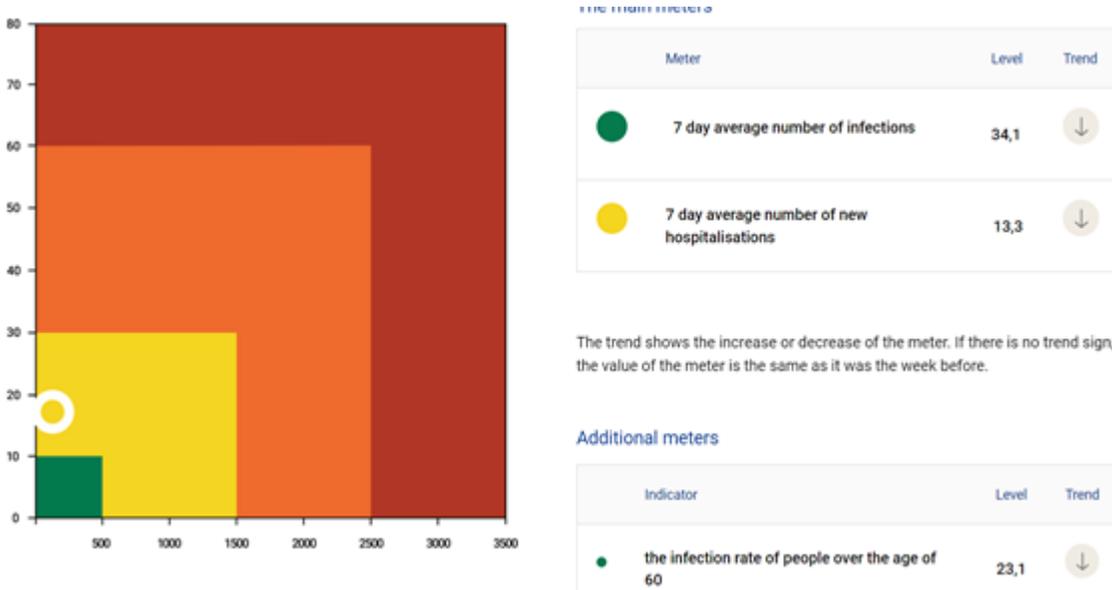
Asked on: Wednesday, May 10, 2023

Disclaimer: The data contained in this document have been provided by members of the PHIRI network. Due to the diverse and heterogeneous nature of the questions and dynamic situations they pertain to, some of the information might be incomplete or only correct for the time being. The data do not have any legally binding value.

Table 1: Country responses

Country	Topic: COVID-19 management tool Questions: <ul style="list-style-type: none"> • Did your country use, during the COVID-19 pandemic, a specific tool to determine the level of severity of the pandemic, at national level (e.g., level 1, level 2, level 3)? • If yes, <ul style="list-style-type: none"> - was this tool linked to public health measures (e.g. different testing, isolation, quarantine, mask wearing, ..., measures depending on the level) ? - what were the different indicators included in that tool? - is this tool still applicable today? Why?
Austria	Austria has been using a risk assessment tool throughout the pandemic: https://corona-ampel.gv.at/ . The risk levels, indicators and thresholds have been adapted several times. In the latest version there are five risk levels (traffic light colours from green to dark red), and the indicators for the risk assessment include COVID-19 hospitalisations, hospital staff capacities and incidence of infections (R(eff) from waste water monitoring). A detailed manual describing the calculation and use of the indicators is available in German: https://corona-ampel.gv.at/sites/corona-ampel.gv.at/files/Manual%20Ampelsystem_V.8_202212.pdf . The risk assessment was taken into consideration by decision makers in the pandemic management, but was never directly and automatically linked to policy measures. The tool is still active and updated regularly, but will be suspended by the end of June.
Belgium	Belgium used a management level tool, based on different indicators. Based on that tool and a more qualitative discussion, the Risk Assessment Group (RAG) defined/determined the management level at the national level as well as at provincial level (level 1, level 2, level 3) on a weekly basis. In theory, this tool was linked to public health measures, but in practice it was rarely the case. Currently, it depends on the public health measure; mask wearing measures are linked to the management levels but isolation and testing strategy among the general population are not. The choice of the different indicators has changed over the pandemic; based on the relevance of the data collected. Today, the tool is based on the following indicators: hospitalizations incidence on 7 days, ICU occupancy, GPs consultations for COVID-19, PR among symptomatic, Rt of infections and number of GPs consultations for flu-like-symptoms. Other indicators are also reported and taken into consideration during the RAG discussion.

	<p>This tool is still applicable today. Discussion are ongoing regarding the perspectives and future of the management tool in order to potentially develop a more integrated tool, involving other respiratory viruses.</p> <ul style="list-style-type: none"> - 20211215_Advice_RAG_Thresholds_riskmanagement_Update_FR.pdf (sciensano.be) - 08022023_RAG_Integrated_thresholds.pdf (sciensano.be) - 20230403_RAG_Update_Integrated_thresholds.pdf (sciensano.be)
<p>Bulgaria</p>	<p>In Bulgaria, the Ministry of Health introduced a system for evaluation of the level of severity of the Pandemic of COVID—19 on municipality and regional levels based on the number of newly registered COVID -19 cases on 100 000 for a period of 14 days https://covid19.ncipd.org/ in line with the incidence thresholds according to the nomenclature of the European Center for Disease Control (ECDC) after 01.08.2022.</p> <p>After 15.07.2021, thresholds for the 14-day morbidity per 100,000 population are applied, according to the NATIONAL PLAN TO DEAL WITH THE PANDEMIC OF SARS-CoV-2 (Table 2, page 48) https://www.mh.government.bg/media/filer_public/2021/07/09/threat_assessment_brief_final_08072021.pdf. According to the National Plan assessment of the epidemic situation and planning of anti-epidemic measures are based on the following criteria (4.2. Assessment of the epidemic situation and planning of anti-epidemic measures):</p> <p>The main criteria for assessing the epidemic situation are those already established:</p> <ol style="list-style-type: none"> 1. 14-day morbidity per 100,000 population (total number of newly reported cases of COVID-19 in the last 14 days in the country). This indicator is monitored daily for the previous 14 days. 2. Weekly test positivity (the average percentage of positive samples from all tests performed for SARS-CoV-2 infection in the last week): below 1%, between 1-4%, above 4%. This indicator is also monitored daily for the previous 7 days. 3. Intensity of testing in the country (number of tests performed for SARS-CoV-2 infection per 100,000 population in the last week). 4. Spread of "future concern" variants of SARS-CoV-2, e.g. Delta variant, also considering the sequencing volume. 5. Number of hospitalized patients on a daily basis <p>On the basis of observations on the course of epidemic outbreaks since the beginning of the pandemic in Bulgaria, depending on the registered 14-day morbidity per 100,000 people of the population, the following 4 threshold levels of expected morbidity can be distinguished:</p> <ul style="list-style-type: none"> • Level 1: the number of newly reported cases of COVID-19 per 100,000 population in the last 14 days is less than 100 per 100,000 • Level 2: the number of newly reported cases of COVID-19 per 100,000 population in the last 14 days is 100 to 250 per 100,000 • Level 3: the number of newly reported cases of COVID-19 per 100,000 population in the last 14 days is 250 to 500 per 100,000 • Level 4: the number of newly reported cases of COVID-19 per 100,000 population in the last 14 days is 500 or more per 100,000 <p>After 12/27/2020, the graphical analysis includes all new reported cases (confirmed by RT-PCR or antigen test). Registration in the national information system of cases confirmed by a test for the presence of antigens began on 24.12.2020.</p> <p>After 12.07.2022, the public health measures, defined in 5 levels (1,2,3,4 +0 level) are applied according to https://coronavirus.bg/bg/1215 There is no upgrade of the levels of measures and they are still valid and in use in the Unified Information Portal.</p> <p>Data source:</p>

	<p>Daily data from the National Information System https://coronavirus.bg/ to fight against COVID-19 published on the website of the Ministry of Health https://www.mh.government.bg/ and in the Unified Information Portal.</p> <p>The population according to the data of the National Statistical Institute https://www.nsi.bg/bg For 2020, the population as of 31.12.2019 is used. For 2021, the population as of 31.12.2020 is used. For 2022, the population as of 31.12.2021 is used.</p>
Croatia	Croatia did not implement a tool for pandemic severity assessment.
Estonia	<p>Estonia was using a traffic light system in order to determine the level of severity of the pandemic. During different phases of the pandemic risk level chart had different thresholds. One risk level chart existed before omicron wave and currently existing risk level chart was developed during omicron wave.</p> <p>Risk level chart has different components:</p> <ul style="list-style-type: none"> - The main meters are the number on people infected with COVID-19 and the number of people hospitalised. - The vertical column shows the average number of new COVID-19 hospitalisations (0 to >60) in the last 7 days, and the horizontal line the average number of people infected with COVID-19 (0 to > 2500) in the last 7 days. The white ring notes the risk level in Estonia. 

	<p>More detailed information in English can be found from special web page - https://kriis.ee/en/covid-crisis-management-qa/crisis-management/levels-risk</p> <p>In everyday life this tool is not used so much anymore as WHO declared that the COVID-19 pandemic is no longer a public health emergency of international concern (PHEIC)—the highest possible level of alarm that mandates countries to act under international health regulations and Health Board (national organisation dealing with COVID-19) cancelled the COVID-19 emergency threat in Estonia. Health Board will continue to monitor the spread of COVID-19, as well as other infectious diseases, and is collecting information on patients that require hospital treatment. The spread of COVID-19 is still extensive but is no longer posing an acute emergency threat to health care as a whole.</p>
<p>Germany</p>	<p>There was no tool, but different indicators to determine the level of severity of the pandemic in Germany. Initially, it was primarily the number of new infections per 100,000 inhabitants within seven days - the seven-day incidence - that was considered an essential parameter for assessing the corona situation. In view of the increasing COVID-19 vaccination coverage rate, it was necessary to use other indicators in addition to the seven-day incidence in order to adequately assess the infection situation. The severity of the disease is particularly suitable for this purpose, which can be represented by the number of hospitalisations or the 7-day hospitalisation incidence, among other things. The hospitalisation incidence shows the hospitalised COVID-19 cases among the cases reported in the last 7 days in relation to 100,000 people.</p> <p>The tool was linked to public health measures and the actions were based on the following thresholds:</p> <p>a) Seven-day incidence: locally, stricter rules had to apply if the values of 35 or 50 new infections per 100,000 people in a week were exceeded in regions. Accordingly, "comprehensive protective measures" were required from an incidence of 50, and "broad-based" measures were initially required above 35.</p> <p>b) Hospitalisation rate: According to the Federal-Länder decisions, from a hospitalisation rate of 3 onwards, the 2G rule applied nationwide. If the value exceeded 6, the 2G-plus rule came into effect. If the threshold value was higher than 9, further measures such as contact restrictions could be imposed.</p> <p>The different indicators included in that tool were:</p> <p>a) Seven-day incidence b) Hospitalisation rate/incidence</p>
<p>Ireland</p>	<p>Yes, Ireland implemented a number of “tools” and frameworks over the course of the pandemic, these evolved over time in response to the ever-changing nature of the pandemic. These are described below.</p> <p>There are no active mandated public health measures currently in place and as such the tools and frameworks described below are in place. However, these frameworks etc. remain relevant in the context of Ireland’s “Enhanced Response” strategy, as developed in the Department of Health’s Strategic Approach for the Management of COVID-19 2022/23. The enhanced response, should it be required, envisages a point-in-time assessment of a constellation of disease indicators (in line with those previously relied upon) that also takes account of all relevant factors (personal, ethical, and public health perspectives), and is proportionate to the risk faced.</p>

Response to questions A and B:

Ireland has pursued a public-health led, whole-of-government response to COVID-19, involving cohesive decision-making, a partnership approach, expert public health advice, and clarity of communications. Ireland has consistently based its decisions in respect of our national response on the best information available at a given point in time.

The Irish Government was supported by a multidisciplinary National Public Health Emergency Team (NPHE) for COVID-19, chaired by Ireland's Chief Medical Officer at the Department of Health. The NPHE continuously monitored the impact of COVID-19 on population health, and provided direction, guidance, support and expert advice across the health service and the wider public service for the overall national response.

With specific regard to the application or gradual stepwise easing of population-wide public health measures, including social distancing, masks and restrictive measures, the NPHE, in providing its strategic public health advice to Government, relied on a number of key COVID-19 disease indicators concerning the national epidemiological situation/severity of the pandemic as set out in its *Public Health Framework Approach in providing advice to Government in relation to reducing social distancing measures*¹ (May 2020). As with other countries, in Ireland these indicators included, but depending on the overall prevailing disease profile at any given point in time may not have been limited to:

1. Trajectory in incidence of disease;
2. Trajectory in number of cases & clusters in residential healthcare settings;
3. Trajectory in number of deaths;
4. Hospitalisation and ICU occupancy;
5. Programme to consistently sample, test and contact trace.

*and other criteria as may arise in the future.

Essential health data sources included: epidemiological data and modelling; incidence of outbreaks in residential settings; testing and contact tracing; health service capacity. Non-health information sources included: transportation data and data and information on mobility and congregation. This framework informed the Government of Ireland's *Roadmap for Reopening Society and Business*², published on 1st May 2020.³

On 23rd July 2020, the NPHE adopted a new *Framework for Future COVID-19 Pandemic Response*⁴, central to which was the recognition that it was no longer sustainable for the pandemic response to remain primarily an emergency response. This framework was underpinned by a Monitoring Framework and a Risk Communication and Community Engagement Strategy and the Public Health Checklist. The Monitoring Framework⁵ was based on guidance from the ECDC which identified key indicators under eight pillars.⁶ The Framework set out four phases of

¹ <https://www.gov.ie/en/publication/7450cc-advice-provided-by-nphet-to-the-minister-for-health/>

² <https://www.gov.ie/en/news/58bc8b-taoiseach-announces-roadmap-for-reopening-society-and-business-and-u/?referrer=http://www.gov.ie/roadmap/>

³ Note: This Roadmap followed *Ireland's National Action Plan in response to COVID-19 (Coronavirus)*, March 2020, <https://www.gov.ie/en/publication/47b727-government-publishes-national-action-plan-on-covid-19/>

⁴ <https://assets.gov.ie/197054/eb786f44-93d5-4163-9b1f-8eb5345d0e8f.pdf>

⁵ <https://assets.gov.ie/235398/c8c5a4cb-26ce-46d6-8ee5-3bdb31c29a26.pdf>

⁶ <https://www.ecdc.europa.eu/en/publications-data/covid-19-monitoring-and-evaluation-framework-response-activities>

response to COVID-19 (blue, yellow, orange, red) in which indicators for escalation, objectives, and priority actions were outlined. On 12th August, the Government announced a nationwide colour-coding alert system to replace phases of re-opening, as advised by NPHET, as follows:

Yellow Phase (times when risk is medium): 1. Single or isolated clusters or outbreaks, with origins understood in the majority of cases 2. 14-day cumulative incidence and related indicators low and stable 3. Indicators of viral transmission (including the number of cases, positivity rate and reproduction number) 4. Incidence of cases in residential healthcare settings stable or decreasing, indicating suppression of community transmission 5. Number of deaths stable or decreasing, indicating suppression of community transmission 6. Admissions to hospital and critical care stable or decreasing, indicating suppression of community transmission 7. Disease remains uncontrolled overseas, but cases related to overseas travel here remain in the minority.

Orange Phase (times when risk is greater): 1. Multiple clusters, with secondary spread 2. 14-day cumulative incidence and related indicators show significant or increasing level of disease 3. Indicators of viral transmission (including the number of cases, positivity rate and reproduction number) indicate community transmission no longer effectively suppressed 4. Incidence of cases in residential healthcare settings increasing 5. Admissions to hospital and critical care increasing 6. Number of deaths increasing 7. Capacity to undertake testing and contact tracing constrained in the context of current demand.

Red Phase (times with risk is greatest): 1. Multiple clusters, with secondary and tertiary spread 2. 14-day cumulative incidence and related indicators show high or rapidly increasing level of disease 3. Indicators of viral transmission (including the number of cases, positivity rate and reproduction number) indicate significant community transmission 4. Incidence of cases in residential healthcare settings rapidly increasing 5. Number of deaths high and / rapidly increasing 6. Significant or rapid increase in admissions to hospital and critical care, with likelihood of hospital or critical care capacity being exceeded 7. Capacity to undertake testing and contact tracing constrained in the context of current demand.

Blue Phase (emergency response stood down): Indicators not applicable.

On 3rd September 2020, the NPHET further refined the 4-phase Framework developed in July 2020 into a 5-Level Framework for Restrictive Measures to provide further clarity, consistency, and certainty in relation to the application of public health measures. This was based on learnings from the application of escalating restrictive measures over the course of August 2020. On 15th September 2020, the Government published *Resilience & Recovery 2020-21: Plan for Living with COVID-19*, which detailed the new five-level framework for restrictive measures in response to COVID-19.⁷ Under this new plan, the NPHET continued to monitor the risk level associated with COVID-19 based on a monitoring framework of key indicators which supported risk assessment at local, regional and national level and underpinned decision making and responses to the epidemiological situation as it evolved. The criteria for assessment included:

1. The number, location and dispersion, and characteristics of cases and clusters, including the extent of secondary/tertiary spread.



This project has received funding from the European Research and Innovation Programme under grant agreement No 101018317. *Resilience & Recovery 2020-21: Plan for Living with COVID-19, September 2020:* <https://www.gov.ie/en/publication/e5175-resilience-and-recovery-2020-2021-plan-for-living-with-covid-19/>

	<ol style="list-style-type: none"> 2. 14-day and 7-day cumulative incidence, 5 day rolling average of cases by county and nationally. 3. Indicators of viral transmission (including the number of cases, positivity rate(s) and reproduction number). 4. Incidence, protective and outbreak management capacity in at risk settings and vulnerable groups. 5. The capacity and performance of the programme of sampling, testing, contact tracing and disease surveillance. 6. The capacity and resilience of the health service in terms of <ol style="list-style-type: none"> a. Hospital occupancy and; b. new admissions Critical care occupancy and new admissions. 7. Numbers of deaths. 8. Other measures including infection prevention and control data and uptake of seasonal flu vaccine and the international situation. <p>These criteria were considered collectively, in context and along with WHO and ECDC guidance to guide recommendations. A description of the combined trigger points for each level are set out at page 29 of the <i>Plan for Living with COVID-19</i>, available here.</p> <p>on 23rd February 2021, the Government announced an update to ‘<i>Resilience & Recovery 2020-21: Plan for Living with COVID-19</i>’ entitled ‘<i>COVID-19 Resilience & Recovery 2021: The Path Ahead</i>’.⁸ This plan documented learnings from the experience of managing the pandemic to date, a range of measures introduced to manage the economic and social impacts of the pandemic, and set out the short-term plan for easing measures, primarily focused on the reopening of education and childcare. The de-escalation of public health restrictive measures was subject to improvement in COVID-19 disease indicators as set out in the <i>Plan for Living with COVID-19</i>, as listed above.</p> <p>In August 2021, the Government published its final Plan titled <i>Reframing the challenge: Continuing our recovery and reconnecting</i>. This Plan acknowledged the significant progress made in the first half of 2021 in reducing infection levels following the peak of the wave of infection in late 2020 and early 2021 due to the sustained efforts of the population. The Plan also took account of progress made in Ireland’s Vaccination Programme. The Plan signalled a change in approach to the management of the pandemic. This phase saw the majority of public health restrictions lifted and replaced by guidance and advice.⁹ The Government agreed that during the interim period between 1st September and 22nd October 2021, the country would continue its careful and gradual approach to reopening, while supporting maximum reach of the vaccination programme.</p>
Italy	<p>In Italy, the Ministry of Health launched several Orders for the classification of Regions/ Autonomous Provinces (https://protezionecivileitalia.it/covid-19/classificazione-regioni-e-province-autonome). In accordance with the provisions Legislative Decree 22 April 2021, n. 52(1) (see Circular TES/IND 105/21), the Ministry of Health has published a series of Ordinances (2,3,4,5) which establish to which one Regions/Autonomous Provinces the provisions of the so-called zones must be applied the "red", "orange", "yellow", and "white" rules and disposals defined by the Law Decree (https://www.federchimica.it/docs/default-source/emergenza-coronavirus/maggio-2021/2021-05-10-tes-ind-n-116---coronavirus---ordinanze-regioni.pdf?sfvrsn=4474893_6). The updated situation is available at the Ministry of Health dedicated</p>

⁸ ‘COVID-19 Resilience & Recovery 2021: The Path Ahead, February 2021, available here: <https://www.gov.ie/en/publication/c4876-covid-19-resilience-and-recovery-2021-the-path-ahead/>’ <http://www.gov.ie/ThePathAhead/>



⁹ All remaining mandatory public health measures were removed from 28th February 2022.

	<p>website (https://www.salute.gov.it/portale/nuovocoronavirus/dettaglioContenutiNuovoCoronavirus.jsp?area=nuovoCoronavirus&id=5351&menu=vuoto).</p> <p>The tool for the classification of the Regions according to the severity of the pandemic is based on 21 indicators for the spread of Covid. They were prepared by the DPCM of 4 November 2020. Based on these parameters, the government decides whether to classify a region as a red zone, orange zone or yellow zone.</p> <p>The 21 Covid-19 indicators concern the spread of the virus and the capacity of the hospital system (https://www.controcampus.it/2020/11/indicatori-covid-zona-rossa-arancione-gialla-per-classificare-le-regioni/). Based on these data, the classification of the regions is then decided (red, orange, yellow, white). The government periodically reviewed the indicators and based on the result it decides, on a weekly basis, whether to maintain or change the zones in the country. Of the 21 Covid-19 indicators in Italy, 16 are mandatory and 5 are optional, and are used to evaluate three elements: probability of the epidemic spreading, impact on health systems and territorial resilience.</p> <p>The well-known RT index is related to the probability of the epidemic spreading. The RT indicates, in simple terms, how many healthy people can be infected by a positive person. The impact on health systems and territorial resilience concern the maintenance of hospital facilities. Reference is made to the territory's capacity to welcome those in need of assistance or shelter.</p> <p>The 21 Covid-19 indicators in Italy are classified in 3 groups and decide whether the regions will be classified as a red, orange, yellow or white zone; all together, they contribute to classify, according to a monitoring system updated every week, the percentage of risk in each region. Consequently, they also serve to understand which rules must be followed.</p> <p>The first group includes six parameters (of which, however, only four are mandatory); they serve to ascertain the quality of data and surveillance systems. The indicators provided here are: the number of symptomatic cases notified per month (and those notified in which the municipality of domicile or residence is reported). Then the number of cases notified per month with a history of hospitalization. Finally that of cases notified by month with a history of transfer/hospitalization in the intensive care unit.</p> <p>The second group also includes six parameters, five mandatory; these are responsible for verifying the diagnostic assessment capacity, i.e. the ability of a region to trace the positives and organize individual quarantines. The first two indices are the percentage of positive swabs and the correlated time between the onset date of symptoms and the date of diagnosis. This is followed by the number of people who work on tracking, the number of people employed in the laboratories and finally the number of cases detected thanks to an epidemiological survey.</p> <p>The third and final group concerns the transmission of infections and the maintenance of the health system; here the parameters are nine. Of these, only seven are mandatory. The first three are: the number of cases reported to the Civil Protection in the last 14 days, the RT index and the number of new cases reported daily. Then follow the number of active outbreaks and the number of Covid infections not associated with any known chain of transmission. Finally, the occupancy rate of intensive care units and the occupancy rate of total beds in the medical areas reserved for the Coronavirus.</p> <p>From 1st April 2022 the system of colored zones (red, orange, yellow, white) which indicated the risk classification of the regions and the restrictive measures to be implemented based on colours, is no longer in force (Decree Law 24 March 2022, no. 24)</p>
Latvia	<p>In Latvia there was a risk classification systems in pandemic time to assess the current epidemiological situation (“traffic light” systems). Measures were related with 14-day cumulative incidence rate. https://www.vm.gov.lv/lv/jaunums/covid-19-drosibas-pasakumus-mazinas-saskana-ar-luksofora-principu (in Latvian)</p> <p>Now all restrictions are lifted, no more classifications or specific measures are in place.</p>

Norway	<p>There has been several types of COVID-19 management tools elaborated in Norway. One example is a Handbook for municipal doctors to deal with corona outbreak with detailed guidelines: Håndbok for oppdaging, vurdering og håndtering av covid-19-utbrudd i kommunen - FHI (in Norwegian)</p> <p>In general the so called TISK: testing, isolation, infection tracking, quarantine was practiced as in other EU countries: Testing, isolasjon, smittesporing og karantene (TISK) - Helsedirektoratet (in Norwegian)</p> <p>In addition, there has been recommended or mandatory: use of masks, hand hygiene, reduced physical contact, vaccination, corona certificate. More on this website: Coronavirus - facts, advice and measures - NIPH (fhi.no) (in English) as well as traffic lights for schools and kindergartens: Regjeringen gjeninnfører trafikklysmodellen i skoler og barnehager - regjeringen.no (in Norwegian)</p> <p>The levels of severity have been determined differently. In the first phase based on number of deaths, infections and in later stages on number of hospitalizations and deaths. There is still ongoing reporting on COVID19 infections that is integrated in the database for all reportable infectious diseases in Norway. FHI MSIS statistikkbank</p> <p>For the moment COVID19 vaccines are recommended for vulnerable groups: Coronavirus immunisation programme - NIPH (fhi.no) and there are provided guidelines regarding travelling abroad containing more general information: Travel advice - NIPH (fhi.no)</p>
Romania	<p>Romania did not have a specific COVID-19 Management tool to determine the level of severity of the pandemic.</p>
UK	<p>UK alert levels and rationale can be found in: https://www.gov.uk/government/publications/uk-covid-19-alert-level-methodology-an-overview/uk-covid-19-alert-level-methodology-an-overview#:~:text=The%20alert%20levels%20are%3A,general%20circulation%20in%20the%20UK</p> <p>As of 29 March 2023, the UK COVID-19 alert level system has been suspended.</p>