



**Health  
Information  
and Quality  
Authority**

An tÚdarás Um Fhaisnéis  
agus Cáilíocht Sláinte

**Rapid review of public health guidance  
on identification and management of  
symptoms in children and young people  
attending school in the context of  
COVID-19**

**04 September 2020**

## ***Key points***

- The Roadmap for the full return to school in Ireland was published on 27 July 2020. This Roadmap sets out how schools will reopen for all students from the end of August, having been closed since 12 March.
- The evidence to date suggests that children and young people (CYP) experience mostly mild symptoms if infected by COVID-19. There is evidence that prolonged school closures are likely to harm the social, psychological, and educational development of CYP.
- In the context of the COVID-19 pandemic, 96 guidance documents in relation to identifying and managing symptoms in CYP attending school, were identified from 20 countries (15 European, two North American, two Australasian and one Asian), including eight guidance documents from international public health bodies (the World Health Organization (WHO) and the European Centre for Disease Prevention and Control (ECDC)).
- In general, the symptoms associated with COVID-19 are consistent across guidance documents, including the core symptoms of fever and cough, with or without additional symptoms. Of note, the majority of CYP diagnosed with COVID-19 are reported to have mild or no symptoms.
- The guidance documents are in agreement that universal health screening of CYP (that is, temperature and symptom screening) should not be conducted in schools. Singapore is the only included country that recommends daily temperature and symptom screening of CYP in schools.
- The guidance documents are in agreement that CYP should stay at home if unwell. Although there are differences as to what symptoms require a CYP to stay at home, all guidance documents recommend that children with fever should not to go to school.
- The guidance documents are in agreement that any CYP who becomes symptomatic in school, should be isolated rapidly and sent home or to a medical facility depending on the severity of the symptoms.
- There was limited guidance in relation to the identification and management of symptoms in clinically vulnerable CYP.

- The recommended minimum duration of isolation after testing positive for SARS-CoV-2 ranges from 7 to 14 days. Some guidance documents advise that children with some lingering symptoms (such as, a dry cough or loss of sense of smell or taste) may return to school provided they are otherwise well. However, where specified, all guidance documents stipulate that fever must be resolved before returning to school.
- Most guidance documents recommend that close contacts of a positive case should quarantine for 14 days after last exposure to the case, and monitor for symptoms. However, some guidance documents suggest that seven or 10 days may be adequate.
- Documents differ in their guidance regarding stay at home requirements for CYP if family members experience symptoms associated with COVID-19 and or test positive for COVID-19, and regarding requirements for the entire classroom to quarantine if a case is confirmed in that class.
- There was generally a requirement for schools to report symptoms and or absenteeism associated with COVID-19 to the relevant public health and or statutory body.
- There is agreement across guidance documents that schools should not make closure decisions without input from public health authorities. Guidance documents generally recommend that the local level of community transmission be a key consideration when deciding whether schools should open or close.
- Public health guidance on identification and management of symptoms in children and young people attending school will need to evolve as the underpinning evidence base emerges.

## **Background**

Due to the ongoing COVID-19 pandemic, the majority of schools globally have gone online or have been suspended, with the aim of limiting the spread of SARS-CoV-2 (the virus that causes COVID-19).<sup>(1)</sup> The United Nations Educational, Scientific and Cultural Organisation (UNESCO) has estimated that over 60% of the world's student population are currently impacted by these school closures.<sup>(1)</sup> The evidence to date suggests that SARS-CoV-2 causes fewer symptoms and less severe disease in children compared with adults, and that deaths are extremely rare in this age group.<sup>(2, 3)</sup> There is also limited evidence of child-to-child or child-to-adult transmission of SARS-CoV-2.<sup>(4)</sup> In contrast, the harms attributed to school closures to the social, emotional, and behavioural health and economic well-being, and academic achievement of children may be significant and have lasting effects.<sup>(5)</sup> Furthermore, as the lack of in-person educational options disproportionately harms low-income and minority children and those living with special needs and disabilities, school closures may exacerbate existing inequalities.<sup>(6)</sup> Therefore, governments are developing strategies to facilitate the safe re-opening of schools.

Given that there is no single symptom that is uniquely predictive of a COVID-19 diagnosis, one of the many challenges facing schools as they re-open is the ability to differentiate symptoms of COVID-19 from those of other viral illnesses, such as the common cold, that commonly occur in children.<sup>(7, 8)</sup> This issue is further compounded by the fact that many children with COVID-19 are asymptomatic.<sup>(7)</sup> As the viral load of SARS-CoV-2 peaks early in the disease trajectory and patients are infectious during this period,<sup>(9)</sup> rapid isolation of the suspected case, followed by prompt contact tracing is required in order to prevent outbreaks in schools. However, from a practical viewpoint, it may not be feasible nor appropriate to isolate and test all students with mild symptoms, and subsequently quarantine all close contacts, given the high prevalence of common viral illnesses in this population.<sup>(3)</sup>

The Roadmap for the full return to school in Ireland was published on 27 July 2020.<sup>(10)</sup> This Roadmap sets out how schools will reopen for all students from the end of August, having been closed since 12 March. To inform the work of the National Public Health Emergency Team (NPHE), the Health Information and Quality Authority (HIQA) undertook a rapid review to summarise published international public health guidance in relation to identifying and managing symptoms in children and young people (CYP) attending school in the context of COVID-19.

This review set out to identify international public health guidance in eight specific areas:

1. symptoms associated with COVID-19 in CYP
2. health screening protocols
3. stay at home protocols
4. isolation of symptomatic CYP protocols
5. return to school protocols
6. school and or classroom closure protocols
7. external reporting requirements for symptoms and or absence in students
8. related risk-based systems or frameworks.

## **Methods**

This rapid review was conducted in line with HIQA's *Protocol for the identification and review of new and updated relevant public health guidance – COVID-19*, available on [www.hiqa.ie](http://www.hiqa.ie). A detailed account of the methods used in this review is provided in the protocol. Relevant international resources were identified as per the protocol. This review is limited to guidance documents explicitly related to primary and secondary schools (or equivalent) in the context of COVID-19.

School closure status (that is, open, localised closures or country-wide closures) was identified using the UNESCO website that monitors the global impact of COVID-19 on education.<sup>(1)</sup> The most recent information was reported on 3 August 2020. Schools closed as part of the normal summer holiday break, but for which re-opening at the start of the academic school year is planned as normal, are considered 'open'.

For the purpose of this rapid review, adapted from the Centers for Disease Control and Prevention (CDC) definitions,<sup>(11)</sup> *isolation* was defined as separating those with symptoms of or diagnosed with COVID-19, from people who are not sick; *Quarantine* was defined as separating and restricting the movements of people who were exposed or potentially exposed to COVID-19, to see if they become sick.<sup>(1)</sup>

The information summarised from guidance documents included in this rapid review is correct as of 17 August 2020, but is subject to change.

## **Results**

Ninety-six guidance documents in relation to identifying and managing symptoms in CYP attending school during the COVID-19 pandemic were identified from 20 countries (15 European, two North American, two Australasian and one Asian), including eight guidance documents from international public health bodies (the World Health Organization (WHO) and the European Centre for Disease Prevention

and Control (ECDC)) (Appendix 1 and 2). Of the 20 countries whose guidance documents were included in this review, ten countries were reported as having their schools fully open (Iceland, Denmark, Austria, France, Norway, Sweden, Switzerland, Singapore, Australia and NZ), nine countries had localised school closures (England, Scotland, Wales, Northern Ireland), the United States (US), The Netherlands, Spain, Germany and Belgium) and one country had country-wide school closures (Canada), according to UNESCO (as of the 3 August 2020).<sup>(1)</sup>

Guidance documents from the following national or international public health bodies and national governmental departments were included in this rapid review:

### **International public health bodies**

- WHO<sup>(12-15)</sup>
- ECDC<sup>(16-19)</sup>

### **United Kingdom**

- England (Public Health England (PHE), The Department of Education)<sup>(20-24)</sup>
- Scotland (Scottish Government)<sup>(25, 26)</sup>
- Northern Ireland (NI) (Public Health Agency of NI, The Department of Education)<sup>(27-29)</sup>
- Wales (Welsh Government)<sup>(30-34)</sup>

### **Other European countries**

- Austria (Federal Ministry of Education, Science and Research of Austria)<sup>(35)</sup>
- Belgium (Ministry of Education and Training, The Flemish Government, Sciensano)<sup>(36-40)</sup>
- Denmark (The Danish Health Authority, Ministry of Children and Education)<sup>(41-47)</sup>
- France (Ministry of National Education, Youth and Sport)<sup>(48-50)</sup>
- Germany (Federal Ministry of Health, Robert Koch-Institut (RKI))<sup>(51-54)</sup>
- Iceland (Ministry of Education, Science and Culture, Ministry of Health)<sup>(55, 56)</sup>
- Norway (Norwegian Institute of Public Health (NIPH), Directorate for Education and Training)<sup>(57-62)</sup>
- Spain (Ministry of Health, Consumer Affairs and Social Welfare, Ministry of education and Vocational Training)<sup>(63-65)</sup>
- Sweden (The Public Health Agency of Sweden)<sup>(66)</sup>
- Switzerland (Federal Office of Public Health (FOPH))<sup>(67-70)</sup>
- The Netherlands (Ministry of Health, Wellbeing and Sports, National Institute for Public Health and the Environment)<sup>(71-74)</sup>

## **North America**

- Canada (Government of Canada)<sup>(75-78)</sup>
- United States (US) (Centers for Disease Control and Prevention (CDC))<sup>(79-90)</sup>

## **Australasia**

- Australia (Department of Health, Department of Education, Skills and Employment)<sup>(91-95)</sup>
- New Zealand (NZ) (Ministry of Education)<sup>(96-103)</sup>

## **Asia**

- Singapore (Ministry of Health, Ministry of Education)<sup>(104-106)</sup>

A summary of the guidance for the eight specific areas outlined in this rapid review is provided separately below.

## **Symptoms associated with COVID-19 in CYP**

The symptoms described as being associated with COVID-19 in CYP vary slightly across guidance documents, but generally comprise the same core symptoms of fever and cough, with or without additional symptoms. The US CDC guidance document recommends focusing on the following five symptoms in CYP:<sup>(79)</sup>

- temperature 38° Celsius (100.4 degrees Fahrenheit) or higher when taken by mouth
- sore throat
- new uncontrolled cough that causes difficulty breathing (for students with chronic allergic or asthmatic cough, a change in their cough from baseline)
- diarrhoea, vomiting, or abdominal pain
- new onset of severe headache, especially with a fever.

The Canadian guidance document states that CYP are more likely to report abdominal symptoms and skin changes or rashes.<sup>(77)</sup> The ECDC guidance document states that the most commonly reported symptoms of COVID-19 in CYP are fever and cough.<sup>(16)</sup> The Australian guidance document states that the most common symptoms in CYP are cough, fever, runny nose and gastrointestinal symptoms.<sup>(92)</sup> Some of the guidance documents acknowledge that CYP tend to have milder symptoms than adults, and are often asymptomatic.<sup>(14, 16, 37, 46, 66)</sup> The NZ guidance document states that the vast majority of CYP with symptoms consistent with COVID-19, will not have COVID-19.<sup>(100)</sup> Several guidance documents acknowledge

the overlapping symptoms between COVID-19 and colds, asthma, hay fever, allergies and other chronic conditions.<sup>(51, 57, 66, 74, 79, 100, 105)</sup>

In the remainder of guidance documents, the symptoms associated with COVID-19 in CYP are not differentiated from those experienced by adults (for example, fever, cough and loss of taste or smell).<sup>(21, 35, 50, 55, 64)</sup>

## **Health screening protocols**

The guidance documents are in agreement that universal health screening of CYP (that is, temperature and symptom screening) should not be conducted in schools.<sup>(21, 31, 79, 100)</sup> Singapore is the only included country that recommends daily temperature and symptom screening of CYP in schools.<sup>(104)</sup> Some guidance documents make no specific recommendation on universal health screening.

The WHO recommends that consideration is given to universal health screening (both temperature and symptom screening) depending on the local situation.<sup>(15)</sup> The Australian guidance recommends that consideration is given to universal symptom screening, but not temperature screening, in boarding schools,<sup>(107)</sup> and the Canadian guidance advises following directions from local public health authorities regarding universal health screening.<sup>(78)</sup> The US CDC outlines several limitations of health screening in schools, including:<sup>(79)</sup>

- mild symptoms of COVID-19 in CYP, which may not involve fever
- overlap between symptoms of COVID-19 and other common childhood illnesses
- presence of asymptomatic or pre-symptomatic cases
- ability to mask symptoms of fever with antipyretic agents
- resources and training required for implementation
- potential for a false sense of security which may lead to other more efficient preventive measures not being implemented correctly
- potential harm to CYP who are unnecessarily excluded from school
- psychological impact of daily screening on CYP
- management of CYP who have underlying chronic symptoms.

There is also a general agreement amongst the guidance documents that parents or caregivers should be encouraged to monitor or observe their children for symptoms associated with COVID-19 every morning before they go to school.<sup>(15, 31, 50, 63, 79)</sup>

Some guidance documents recommend providing checklists to parents or caregivers to help them decide whether or not they should bring their child to school.<sup>(15, 79)</sup> For example, the CDC has developed a checklist for parents which focuses on the presence of symptoms alongside close contact or potential exposure history of the

CYP, which may help to determine the risk of transmitting an infectious illness to other students or to school staff (Appendix 3).<sup>(90)</sup> Some guidance documents make no specific recommendation regarding parents or caregivers monitoring or observing their children for symptoms.

Three guidance documents recommend that school staff should observe CYP for signs of illness when they arrive at school, and monitor for any changes throughout the school day.<sup>(31, 100, 105)</sup> The NZ guidance document states that principals at state and state-integrated schools have the authority to stop a student from attending if they believe on reasonable grounds they may have a communicable disease under section 19 of the Education Act.<sup>(100)</sup> The Singaporean guidance document recommends that school staff and parents or caregivers observe CYP for fever or respiratory symptoms, such as sneezing, breathlessness, runny nose, loss of smell, cough, or sore throat.<sup>(105)</sup> Most guidance documents make no specific recommendation regarding school staff monitoring or observing CYP for symptoms.

### **Stay at home protocols**

The guidance documents are in agreement that CYP should stay at home if unwell. However, there are differences between guidance documents as to what symptoms constitute being unwell.

The CDC guidance document recommends that in CYP with chronic allergic or asthmatic cough, that only a change in cough from baseline should be considered a possible symptom of COVID-19.<sup>(79)</sup> The German guidance document states that CYP with a cough do not necessarily have COVID-19, and that the opinion of a paediatrician should be sought in cases of uncertainty.<sup>(51)</sup> The Norwegian guidance document recommends that CYP and staff with typical symptoms of pollen allergy (known pollen allergy, runny nose, runny or itchy eyes) may attend school. The Norwegian guidance document acknowledges that since many younger children often have runny noses without other symptoms of respiratory infection, and especially after they have been outside, that these children can come to school if the child does not have a fever and is otherwise healthy.<sup>(57)</sup> Guidance from The Netherlands and New Zealand recommends that school staff should inquire with the parents of a child presenting with symptoms of a cold, whether the child has any underlying illness (such as asthma, hay fever or allergies) which may explain the symptoms, before sending the child home.<sup>(71, 100)</sup> In the Netherlands, it is recommended that children with hay fever or a chronic cold with clinical presentation typical of their usual symptoms may go to school. However, if complaints are different to the usual presentation, the child should be kept at home until the complaints have passed or they have been tested.<sup>(71)</sup> In contrast, the Swedish guidance document recommends that people who suffer from allergies should stay

at home even if experiencing mild symptoms. However, if symptoms are subsequently relieved by the person's usual allergy medication and the judgment is that the symptoms are likely caused by the allergy, then they do not need to remain at home.<sup>(66)</sup>

The Swiss guidance document recommends that children under the age of 12 do not have to be tested in all cases of symptom onset. They recommend that the child's doctor will decide with the parents, whether a test is needed, taking account of national public health recommendations.<sup>(69)</sup> The Dutch guidance document acknowledges that young children often have a persistent cold. They recommend that children in groups 1 and 2 (aged 4 to 5) and children less than four years old, can go to school (or childcare facilities) with symptoms of a cold (runny nose, nasal cold, sneezing and sore throat) provided they do not have a fever and the child is not a close contact of a case, and no one else in the household has a fever and or shortness of breath.<sup>(71)</sup> The Singaporean guidance document recommends that for students aged 12 and younger who are feeling unwell, especially if they display respiratory symptoms such as runny nose, cough or sore throat, they should be assessed by a doctor as to whether a test is required. They may be issued a five day medical certificate in the first instance and required to stay home. If they are well at the end of the five day period, they can return to school. If they are still displaying respiratory symptoms at the end of this period they should return to the same doctor for follow-up assessment and they may be tested for SARS-CoV-2.<sup>(105)</sup>

There are nuances surrounding the recommendations as to whether CYP who have household members experiencing symptoms associated with COVID-19 and or tested positive for COVID-19 should stay at home. Guidance from several countries recommend that if any household member is experiencing any symptoms associated with COVID-19, then CYP should stay at home.<sup>(15, 17, 21, 25, 27, 31, 55)</sup> The Icelandic guidance document also requires the entire classroom to quarantine for 14 days, if there is a positive case in the household of any student or teacher connected to that classroom.<sup>(55)</sup> Other countries recommend that CYP should stay at home only if a household member tests positive for COVID-19,<sup>(57)</sup> or if household members have fever and or shortness of breath,<sup>(71)</sup> or if adult household members have symptoms.<sup>(105)</sup> The Norwegian guidance recommends that CYP should attend school even if household members have symptoms of a respiratory infection, but have not been tested for COVID-19. However, CYP must leave school if they subsequently become symptomatic themselves.<sup>(57)</sup> The Swedish guidance document recommends that a CYP can go to school as normal even if a household member is ill with suspected or confirmed COVID-19, provided that the CYP has no symptoms, but should they develop any symptoms they must stay at home.<sup>(66)</sup>

The remaining guidance documents make no specific recommendation regarding the need to stay at home if a household member is symptomatic and or tests positive for COVID-19.

### **Isolation of symptomatic CYP protocols**

There is agreement across all guidance documents that any CYP who becomes symptomatic in school, should be isolated rapidly and sent home or to a medical facility, depending on the severity of the symptoms. Detailed advice on procedures that should be undertaken in such a situation are provided in several guidance documents.<sup>(21, 25, 27, 31, 35, 46, 57, 63, 78, 83, 94)</sup> These protocols are activated in line with the accepted list of symptoms associated with COVID-19 in that jurisdiction as summarised earlier in this review.

The Scottish Government recommends that if the affected CYP has mild symptoms of COVID-19, and is over the age of 16, they should go home as soon as they notice symptoms and follow public health guidance (minimising contact with others, wearing a face mask and, where possible, using a private vehicle to go home). They also recommend that the following steps be undertaken in a situation where a symptomatic CYP is waiting in the school to be collected by a parent or caregiver (preferably another adult member of their household and not a grandparent) or the ambulance. Guidance covering how and where the symptomatic CYP should be isolated, respiratory hygiene measures, personal protective equipment (PPE) and communication with emergency services, is provided.<sup>(25)</sup>

English guidance documents recommend that PPE should be worn by staff caring for the child while they await collection if a distance of 2 metres cannot be maintained (such as for a very young child or a child with complex needs).<sup>(20)</sup> Several guidance documents recommend that symptomatic CYP should wear face masks while awaiting collection.<sup>(25, 50, 57, 78)</sup>

In order to minimise the risk of transmission after a case has been identified on the school grounds, the Austrian guidance document recommends that no one must be allowed to leave the school building until the public health officer has arrived to assess the situation. The health authorities will also decide who must stay in the school for further investigations to be carried out.<sup>(35)</sup> Some guidance documents recommend that in such a situation, testing may be done on-site after a suspected case has been in the school.<sup>(34, 35)</sup> In the case of an outbreak in a school (that is, two or more confirmed cases), the Welsh guidance recommends that antigen testing is undertaken by the local health board for everybody in the 'bubble' (that is, the small, consistent group of no more than eight CYP) that has been affected by the outbreak.

Everyone in the school will be tested if it has been established that guidelines have not been followed.<sup>(34)</sup>

Some guidance documents recommend that symptomatic students who are travelling home should not use public transport,<sup>(27)</sup> but if they have no alternative, then they should wear face masks and maintain physical distancing.<sup>(25, 57)</sup>

Recommendations regarding environmental decontamination of the isolation area are provided in several guidance documents.<sup>(25, 27, 31, 57, 78, 83)</sup> The CDC recommends waiting at least 24 hours before cleaning and disinfecting any isolation area, but if 24 hours is not feasible, they recommend waiting as long as possible.<sup>(83)</sup> Guidance from NI recommends waiting 72 hours before cleaning any isolation areas.<sup>(27)</sup>

The Australian and NZ guidance documents provide additional guidance on isolation of symptomatic students in boarding schools, particularly where it may not be practical or desirable for symptomatic CYP (and close contacts) to return home.<sup>(100, 107)</sup>

The remaining guidance documents do not make any specific recommendations regarding isolation of symptomatic students, other than the need to inform parents and caregivers that their child is sick.

### **Return to school protocols**

Return to school recommendations vary across guidance documents, and appear to be changing in line with new evidence regarding the incubation period and duration of infectivity (Table 1). Although it is not explicit in most of the included guidance documents, it is generally implied that CYP who test positive for SARS-CoV-2 or those who were close contacts of a positive case, should follow isolation or quarantine rules for the general population.

The recommended minimum duration of isolation after testing positive for SARS-CoV-2 varies and includes seven days,<sup>(39, 66, 72)</sup> eight days,<sup>(17, 19, 61)</sup> 10 days<sup>(12, 21, 25, 27, 29, 33, 53, 64, 66, 69, 88)</sup> and 14 days (Table 1).<sup>(56, 77)</sup> Guidance from Denmark advises that individuals can end their period of isolation 48 hours after symptoms (other than loss of sense of smell or taste) have disappeared; however asymptomatic cases must wait seven days from diagnosis.<sup>(44, 47)</sup> Guidance from Singapore stipulates that individuals can only end their period of isolation after they receive a negative test result.<sup>(106)</sup> There is also variation as to whether CYP with lingering symptoms can return to school. The guidance documents are in agreement that CYP must be fever-free before returning to school. However, this recommended fever-free period ranges from the time of returning to school<sup>(19, 21, 33)</sup> up to 72 hours before returning

to school;<sup>(39, 61)</sup> some guidance documents also stipulate that this fever-free period must be without using any fever-reducing medication such as paracetamol.<sup>(25, 79)</sup> The guidance documents are also in agreement that symptoms must have improved “significantly”,<sup>(39)</sup> or CYP must be symptom-free for up to 72 hours,<sup>(17, 19, 61)</sup> before they can return to school. However, guidance documents from several countries acknowledge that a cough or the loss of taste or smell can last for a prolonged period, and if these are the only symptoms present at the end of the minimum isolation period, then CYP can return to school.<sup>(21, 25, 27, 33, 44, 66)</sup> Several guidance documents recommend that medical certification or test results should not be a pre-requisite for CYP to return to school, once the minimum isolation period is undertaken by the student and they are otherwise well.<sup>(21, 46, 57)</sup> Guidance from Australia,<sup>(95)</sup> NZ<sup>(102)</sup> and France<sup>(50)</sup> stipulates that students can only return to school under the advice of a clinician or public health official.

In line with the WHO policy that the incubation period ranges from two to 14 days,<sup>(13)</sup> most guidance documents recommend that close contacts of a positive case should quarantine for 14 days and monitor for symptoms (Table 1).<sup>(13, 25, 29, 33, 39, 88, 95, 101, 106)</sup> However, some countries appear to deviate from this recommendation. Guidance documents from both Norway and Switzerland recommend that close contacts can return to school if they have no symptoms 10 days after the last contact with the positive case.<sup>(61, 70)</sup> Guidance documents from Denmark recommend that a child who is a close contact of a positive case can be sent back to school if they test negative on the first test and continue to show no symptoms. Danish guidance also recommend that if a decision is made not to test a child under the age of 12 (as it may be an uncomfortable procedure for young children), then the child can return to school seven days after the last contact with the index case, if they have no symptoms.<sup>(43)</sup> The CDC have updated their quarantine recommendation to take into account emerging evidence indicating that re-infection appears unlikely within three months of the initial infection. They recommend that quarantine is not required for a close contact who:<sup>(88)</sup>

- developed COVID-19 illness within the previous three months and
- has recovered and
- remains without COVID-19 symptoms (for example, cough, shortness of breath).

Similarly, Belgian guidance recommends that quarantine is not necessary for someone who has previously tested positive for SARS-CoV-2, though a time frame is not provided.<sup>(38)</sup>

**Table 1: Recommendations for the duration of isolation and quarantine in CYP in the context of COVID-19.\***

Country	Isolation period <sup>†</sup>	Quarantine period <sup>*</sup>
<b>INTERNATIONAL PUBLIC HEALTH GUIDANCE</b>		
WHO <sup>(12, 13)</sup>	<i>Symptomatic cases:</i> 10 days after symptom onset, PLUS at least 3 additional days without symptoms (including without fever and without respiratory symptoms) <i>Asymptomatic cases:</i> 10 days after positive test for SARS-CoV-2.	14 days
ECDC <sup>(17, 19)</sup>	8 days after the onset of symptoms AND resolution of fever AND clinical improvement of other symptoms for at least 3 days.	14 days
<b>EUROPE</b>		
Austria	-	-
Belgium <sup>(39)</sup>	7 days after the onset of symptoms, provided that there has been no fever for the last 3 days AND that the symptoms have improved significantly.	14 days (except if previously tested positive)
Denmark <sup>(43, 44)</sup>	<i>Symptomatic cases:</i> 48 hours after symptoms have disappeared, other than loss of sense of smell/taste <i>Asymptomatic cases:</i> 7 days	General population: 14 days Children <12 years: 7 days
France <sup>(50)</sup>	Under the advice of a clinician	Under the advice of a clinician
Germany <sup>(53)</sup>	<i>Symptomatic cases:</i> 10 days PLUS at least 48 hours free from symptoms <i>Asymptomatic cases:</i> 10 days	14 days
Iceland <sup>(56)</sup>	<i>Symptomatic cases:</i> 14 days since a positive SARS-CoV-2 test AND at least 7 days of no symptoms <i>Asymptomatic cases:</i> 14 days	14 days
Ireland <sup>(108, 109)</sup>	14 days AND no fever for 5 days	14 days
Norway <sup>(61)</sup>	8 days PLUS 3 days after full recovery	10 days
Spain <sup>(64)</sup>	<i>Symptomatic cases:</i> 10 days AND 3 days after the resolution of fever <i>Asymptomatic cases:</i> 10 days	14 days

*Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools*

Health Information and Quality Authority

Sweden <sup>(66)</sup>	7 days AND 2 days after resolution of fever AND improvement in symptoms	As decided by the county medical officer
Switzerland <sup>(69, 70)</sup>	10 days	10 days
The Netherlands <sup>(72)</sup>	7 days AND fever-free for a minimum of 48 hours and symptom-free for at least 24 hours	14 days
The United Kingdom <sup>(21, 25, 27, 29, 33)</sup>	10 days AND no symptoms other than cough or loss of sense of smell/taste	14 days
<b>NORTH AMERICA</b>		
Canada <sup>(77)</sup>	<i>Symptomatic cases:</i> 14 days or as directed by the public health authority <i>Asymptomatic cases:</i> 14 days or as directed by the public health authority	14 days
United States <sup>(88)</sup>	<i>Symptomatic cases:</i> 10 days AND at least 24 hours after the resolution of fever without the use of fever-reducing medications AND other symptoms are improving (other than loss of taste and smell) <i>Asymptomatic cases:</i> 10 days	14 days (However, anyone who has had close contact with someone with COVID-19 and who: developed COVID-19 illness within the previous 3 months AND has recovered AND remains without COVID-19 symptoms (for example, cough, shortness of breath) does not need to stay home).
<b>AUSTRALASIA</b>		
Australia <sup>(95)</sup>	Under the advice of the Public Health Unit	14 days
New Zealand <sup>(102)</sup>	Under the advice of a clinician	14 days
<b>ASIA</b>		
Singapore <sup>(106)</sup>	Until negative test result	14 days

\*In circumstances where guidance for educational settings did not explicitly state the recommended duration of isolation and quarantine, recommendations for the general population have been used.

Definitions for isolation and quarantine have been adapted from those used by the Centers for Disease Control and Prevention (CDC). Across the guidance documents, isolation begins at the onset of symptoms for symptomatic cases, or after a positive test for SARS-CoV-2 for asymptomatic cases. For quarantine, the time interval begins at the last known exposure to SARS-CoV-2 or potential exposure.

† Isolation separates people with a diagnosis of COVID-19 from people who do not have the disease.

‡ Quarantine separates and restricts the movement of people who were exposed or potentially exposed to SARS-CoV-2 to see if they develop symptoms associated with COVID-19. Those who do not develop symptoms by the end of the quarantine period can end quarantine. Those who develop symptoms associated with COVID-19 during the quarantine period will be required to isolate.

- Indicates relevant guidance documents not found.

Most included guidance documents do not clearly state whether a whole classroom or only those with a greater degree of exposure need to quarantine, if a positive case is identified in a classroom. Dutch guidance recommends that in a classroom situation, close contacts that are aged under 18 years of age, can continue to go to school, but their symptoms should be monitored over the next 14 days and promptly stay at home if any symptoms arise in this period. The only exception to this is if there is “frequent and intensive contacts” between the index case and other CYP, whereby the recommendation is that those contacts should quarantine at home for 14 days. The examples provided by the Dutch guidance document for “frequent and intensive contact” are “children who spend the night in the same bedroom and best friends who spend the day in close contact with each other”.<sup>(72)</sup> English, NI and French guidance states that a rapid risk assessment by public health authorities will be undertaken to confirm who has been in close contact with the confirmed case during the period that they were infectious, to ascertain who in the classroom needs to quarantine.<sup>(21, 27, 50)</sup> Belgian guidance recommends that all children in a cohort, who are younger than six years old must quarantine for 14 days if there is a second confirmed case within the cohort (that is, meeting the criteria for a cluster); however, classroom contacts who are six years and older do not necessarily have to quarantine.<sup>(38)</sup> Norwegian guidance recommends that close contacts (within two metres for more than 15 minutes) along with all in the same school cohort up to and including the 4<sup>th</sup> grade (nine years old) must quarantine.<sup>(61, 62)</sup> Conversely, guidance documents from the CDC and the ECDC recommend that if a CYP or staff member tests positive, the rest of their class, cohort or group within their childcare or education setting should be sent home and advised to quarantine for 14 days from last exposure to the positive case.<sup>(17, 80)</sup> The CDC guidance document allows for those close contacts to end their quarantine period and return to school if they receive a negative test result.<sup>(80)</sup> The Icelandic guidance document also requires the entire classroom to quarantine for 14 days, even if there is a positive case in the household of a student or teacher.<sup>(55)</sup> The remaining guidance documents do not clearly state whether or not the entire classroom should be treated as close contacts.

For several countries, the period of isolation and or quarantine may be decided on a case-by-case basis by local public health officials.<sup>(50, 66, 95, 102)</sup> No relevant Austrian guidance, relating to the recommended duration of isolation or quarantine, could be found.

In terms of CYP who present with mild respiratory symptoms where there is no or limited suspicion of exposure to SARS-CoV-2, several guidance documents offer advice to stay at home for short periods of time, usually until 24 to 48 hours after symptoms have improved.<sup>(47, 55, 57, 66, 71, 79)</sup> Guidance documents from Norway further

advise specifically for primary school children, that they may return to school after a mild respiratory infection even if residual symptoms remain (that is, nasal secretions regardless of colour, or an occasional cough) as long as they are otherwise well.<sup>(57)</sup> However, the Norwegian guidance document recommends that middle and high school students must be completely symptom-free before returning to school after a mild respiratory infection.<sup>(58)</sup> The Singaporean guidance document recommends that children under 12 may be sent home for five days in the first instance if displaying respiratory symptoms with the need for testing re-evaluated after five days, if symptoms do not improve.<sup>(105)</sup> Guidance from NI recommends that if everyone with symptoms who was tested in their household receives a negative result, CYP can return to school provided that they are well enough and have not had a temperature for 48 hours.<sup>(27)</sup> The remaining guidance documents do not provide any specific recommendations to deal with this scenario, although it is assumed that students are expected to follow the recommendations for the general population.

With regards to international boarding school students, NI guidance states that “while reducing the risk of the transmission of COVID-19 remains the priority, schools should consider the emotional wellbeing of students, especially those who are already vulnerable to mental health issues. This includes those who may have had to complete repeated periods of isolation (during one holiday period) in their 'home' country and then in the UK.”<sup>(27)</sup>

### **School and or classroom closure protocols**

There is a lot of uncertainty as to when a school or a classroom should be closed when cases are identified. Several guidance documents recommend closing the school or affected classroom for a short period of time (for a few days only) in order to undertake a deep clean and contact tracing.<sup>(25, 63, 81, 100, 105)</sup> Other guidance documents, recommend that a single confirmed case does not necessarily warrant closure of an entire school.<sup>(21, 31, 47, 80)</sup> Belgian guidance recommends closing classrooms for children under six years old if there are two or more cases within a 14-day period in the classroom; guidance for older children is not provided.<sup>(39)</sup> The ECDC guidance document advises that “reactive school closures following community outbreaks, and cases or outbreaks in schools are unlikely to be timely enough to have a significant impact on the dynamics of the local epidemic, but may need to be made due to absenteeism, or staff and parental concerns.”<sup>(16)</sup>

However, there is a general agreement that schools should not be expected to make decisions about closure on their own, and that this decision should be made in conjunction with local public health authorities.<sup>(15, 21, 31, 35, 52, 63, 72, 78, 80, 94, 100)</sup> The WHO recommends that school closure decisions should be guided by a risk management approach; considering factors such as the benefits and risks to CYP,

staff and the wider community of keeping schools open, the level of community transmission, the effectiveness of remote learning strategies, the impact of school closure on vulnerable populations and the effectiveness of local test-trace-isolate strategies.<sup>(15)</sup> In particular, the CDC advises that if community transmission levels cannot be decreased, school closures must be considered seriously. The CDC further recommends that if the transmission of the virus within a school is higher than that of the community, or if the school is the source of an outbreak, administrators should work collaboratively with local health officials to determine if a temporary school closure is necessary.<sup>(80)</sup>

### **External reporting requirements for symptoms and or absence**

Across guidance documents there is a requirement for schools to report cases of COVID-19 and absenteeism (particularly when these are suspected to be connected to COVID-19) to local public health authorities or other statutory bodies.<sup>(15, 21, 25, 27, 32, 35, 52, 63, 71, 78, 80, 100)</sup> English guidance recommends that schools contact local public health authorities when there are two or more confirmed cases in the school within 14 days, or an increase in absenteeism is observed, as this may indicate an outbreak.<sup>(21)</sup> Similarly, Dutch guidance requires schools to report clusters of three or more cases to the local public health authorities.<sup>(72)</sup> Guidance documents from NZ recommend that schools should contact the local medical officer if there are any concerns about someone believed on reasonable grounds to be ill with COVID-19 (or any communicable disease) but who is refusing to stay away from school.<sup>(100)</sup> Guidance from Iceland, England and Denmark highlights that attendance at schools is now mandatory, as attendance may not have been mandatory earlier in the pandemic, and that unjustified absences may be reported to the appropriate authorities.<sup>(21, 46, 55)</sup> In contrast, guidance from the US and Canada acknowledges that illness due to COVID-19 may impact on the usual level of absenteeism, and advises a flexible approach when reporting absenteeism to the relevant authorities.<sup>(78, 83)</sup>

### **Related risk-based systems or frameworks**

Several guidance documents describe risk-based systems or frameworks to guide the re-opening (or maintaining the open status) of schools throughout the COVID-19 pandemic.<sup>(15, 26, 27, 31, 37, 40, 49, 57, 75, 82, 100)</sup> Examples of these include traffic light systems in Belgium<sup>(40)</sup> and Norway,<sup>(57)</sup> alert levels in NZ<sup>(100)</sup> and a risk assessment tool in Canada.<sup>(75)</sup> However, the majority of these systems or frameworks have no bearing on how symptoms are identified and managed in CYP attending school. In fact, Belgian and NZ guidance documents explicitly recommend that the same approach to symptom identification and management (that is, a low threshold for suspicion) should be conducted regardless of the level of risk or alert level.<sup>(40, 100)</sup>

However, the CDC have recommended that the four defined levels of community transmission (ranging from no-to-minimal transmission to substantial, uncontrolled transmission) be central to the decision-making regarding school closures or introducing universal health screening for CYP.<sup>(80, 82)</sup> The remaining guidance documents do not describe a risk-based system or framework.

## ***Discussion***

This rapid review summarises published international public health guidance in relation to the identification and management of symptoms in CYP attending school in the context of COVID-19. Across the 96 guidance documents from the 20 included countries and the two international public health bodies, there is general agreement that universal health screening should not be conducted in schools, that symptomatic CYP should be isolated rapidly, that schools should not make closure decisions without input from public health authorities, and that symptoms and or absenteeism associated with COVID-19 should be reported to an appropriate external public health and or statutory body. However, there are differences in relation to the symptoms that require CYP to stay at home, whether illness in the household requires CYP to stay at home, on whom is considered a close contact in a classroom setting, the duration of isolation and quarantine, and what necessitates a whole-school closure. Risk-based systems or frameworks across included public health guidance documents appear to have limited connection to the identification and management of symptoms in CYP attending school, other than the acknowledgement that the local level of community transmission is a critical consideration in determining whether schools should open or close. There is also limited guidance regarding clinically vulnerable CYP, except the advice to consider a change in cough from baseline in CYP with underlying asthma, when deciding whether a CYP should stay at home or not.<sup>(79)</sup>

Differences in the guidance documents may reflect differences in the burden of COVID-19 and or the stage of the pandemic that countries are currently experiencing. Certain areas of divergence, particularly around school closure decisions, may also reflect socioeconomic differences between countries. For example, it may be easier for countries to shut schools if they are sufficiently resourced to provide online learning, whereas this may be more challenging if computers and reliable internet connection are not readily accessible by the student population.<sup>(6)</sup> Furthermore, some students rely heavily on school meals and so shutting schools may exacerbate food insecurity in disadvantaged jurisdictions.<sup>(6)</sup> Hence, it is not known if socioeconomic differences between countries impact the guidance around school closures.

Many governments across the world, including the Irish government, have declared that the safe and full re-opening of schools is a national priority.<sup>(10)</sup> The evidence to date would appear to suggest that CYP experience mostly mild symptoms of COVID-19,<sup>(2)</sup> whereas there is evidence that prolonged school closures are likely to harm CYP's social, psychological, and educational development, as well as have negative impacts on gender equality,<sup>(110)</sup> productivity and income in adults who cannot work because of childcare responsibilities.<sup>(111)</sup> Despite this, policy makers, still face many challenges as schools re-open.<sup>(112)</sup> Uncertainty remains regarding the role of children in the spread of SARS-CoV-2, with studies conducted in school settings early in the disease pandemic reporting little to no evidence of onward transmission from children,<sup>(113, 114)</sup> whereas some more recent studies have reported examples of outbreaks in schools.<sup>(115, 116)</sup> However, the evidence from contact tracing in schools and observational data from a number of countries suggest that re-opening schools has not been associated with significant increases in community transmission.<sup>(16)</sup> HIQA conducted an evidence review on the transmission of SARS-CoV-2 by children.<sup>(4)</sup> The evidence summary found that there is currently limited information on the contribution of children to the transmission of SARS-CoV-2. Very few definitive cases of virus transmission from children have been published to date. From the published studies identified, it appears that children are not, to date, substantially contributing to the household transmission of SARS-CoV-2. From six school-based studies investigating transmission of SARS-CoV-2 in children, it appears that rates in this setting are also low.<sup>(4)</sup>

A mathematical modelling study by Panovska-Griffiths et al. found that as schools re-open fully in the UK and broader relaxing of physical distancing measures occur, a comprehensive and effective test–trace–isolate strategy would be required to avoid a second COVID-19 wave.<sup>(117)</sup> Guidance documents from various countries strongly recommend involving local public health officials when cases are identified, absenteeism is higher than normal, and in decisions around potential school closures. This underlines the essential role that public health authorities plays in limiting the spread of the virus as lockdown measures continue to ease. Due to the prevalence of mild respiratory illnesses in children, particularly in winter months,<sup>(3)</sup> it is essential that public health authorities and schools are not overwhelmed. More evidence is needed to ascertain the predictive value of certain symptoms in CYP, potentially stratified by age-groups, so that there is a better understanding of when a CYP needs to stay at home, and when it is safe to return to school.

There is also uncertainty regarding isolation and quarantine rules for CYP, with the periods ranging from seven to 14 days for both, and some jurisdictions requiring whole-classroom quarantines and others not. The current Irish guidance for the general population is that people with COVID-19 can stop isolating once they have

had no fever for five days and it has been 14 days since symptom onset,<sup>(108)</sup> and that quarantine for close contacts lasts for 14 days from the last contact.<sup>(109)</sup>

There may be a challenge to implementing isolation and quarantine periods of 14 days as schools fully re-open. However, this has to be balanced with the risk of virus transmission due to the presence of infectious, potentially asymptomatic, individuals in school settings. An evidence review conducted by HIQA found a reduction in infectivity 7-10 days after onset of symptoms, though two studies reported virus isolation beyond 10 days.<sup>(9)</sup> Hence, there is still a lot of uncertainty regarding the optimal isolation period for COVID-19, which is reflected in the diverging approaches adopted by different countries. To address outstanding policy questions, HIQA is currently undertaking an evidence review to inform advice around the appropriate duration of isolation (including in children) after a diagnosis of COVID-19 is made.

A strength of this rapid review was the comprehensive nature of this report, which includes guidance documents from 20 countries and two public health bodies, and was not restricted to the English language. This comprehensiveness enables a useful overview of how other countries are dealing with this complex issue. A limitation of this rapid review is that some guidance documents needed to be translated into English, hence it is possible that some misinterpretation occurred. Additionally, some contradictions were noted between documents from the same country, which is possibly reflective of the nature of a rapidly evolving pandemic, whereby keeping all documents up-to-date may be administratively challenging.

## ***Conclusion***

Public health guidance in relation to the identification and management of symptoms in schools for children and young people (CYP), in the context of COVID-19, from 20 countries and two international public health bodies was reviewed. There is general agreement that universal health screening, including temperature screening, should not be conducted in schools, that symptomatic CYP should be isolated rapidly, that schools should not make closure decisions without input from public health authorities, and that symptoms and or absenteeism associated with COVID-19 should be reported to an appropriate external public health and or statutory body. However, there are differences in relation to the symptoms that require CYP to stay at home, whether illness in the household requires CYP to stay at home, on whom is considered a close contact in a classroom setting, the duration of isolation and quarantine, and when a whole-school closure is necessary. Guidance will need to evolve and take consideration of emerging evidence.

The information summarised from guidance documents included in this rapid review is correct as of 17 August 2020, but is subject to change.

**Appendix 1: Summary of recommendations from the included public health guidance documents regarding the identification and management of symptomatic children and young people in schools**

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
<b>INTERNATIONAL OR REGIONAL PUBLIC HEALTH GUIDANCE</b>						
ECDC	Variation in the status of schools across Europe.	<ul style="list-style-type: none"> <li>▪ Fever</li> <li>▪ Cough</li> <li>▪ sore throat</li> <li>▪ general weakness and fatigue</li> <li>▪ muscular pain.</li> </ul> <p>Severe cases:</p> <ul style="list-style-type: none"> <li>▪ severe pneumonia, acute respiratory distress syndrome, sepsis</li> <li>▪ septic shock.</li> </ul> <p>The most commonly reported symptoms in children are fever and cough. Other symptoms include gastrointestinal symptoms, sore throat/pharyngitis, shortness of breath, myalgia, rhinorrhoea/nasal congestion and headache, with</p>	NR	NR	<p>All students and staff showing symptoms compatible with COVID-19 should be tested for SARS-CoV-2 in accordance with ECDC’s testing strategy and current laboratory testing guidance.</p> <p>Contact tracing should be initiated promptly following identification of a confirmed case and should include contacts in the school (students, teachers and other staff), household and other settings as relevant, in accordance with ECDC or national guidance.</p>	NR

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
		<p>varying prevalence among different studies.</p> <p>Children are more likely to have a mild or asymptomatic infection.</p>				
WHO	Variation in the status of schools internationally.	<p>Fever, cough and shortness of breath.</p> <p>More severe cases: Pneumonia or breathing difficulties.</p> <p>Children generally have milder illness and fewer symptoms.</p> <p>Other symptoms:</p> <ul style="list-style-type: none"> <li>▪ tiredness</li> <li>▪ aches and pains,</li> <li>▪ nasal congestion,</li> <li>▪ headache,</li> <li>▪ conjunctivitis,</li> <li>▪ sore throat,</li> <li>▪ diarrhoea,</li> <li>▪ loss of taste or smell</li> <li>▪ rash on skin</li> <li>▪ Discoloration of fingers or toes.</li> </ul>	<p>Considerations:</p> <ul style="list-style-type: none"> <li>▪ Daily body temperature screening on entry;</li> <li>▪ Reporting of history of fever or feeling feverish in the previous 24 hours on entry.</li> <li>▪ Create a checklist for parents/students/staff to decide whether to go to school (taking into consideration the local situation).</li> </ul>	<p>Policy of “staying home if unwell”.</p> <p>Caregivers should alert the school and health care authorities if someone in their home has been diagnosed with COVID-19 and keep their child at home.</p>	<ul style="list-style-type: none"> <li>▪ Establish a procedure for students or staff who have symptoms of COVID-19 or are feeling unwell in any way to be sent home or isolated from others.</li> <li>▪ Inform parents/caregivers</li> <li>▪ Consult with healthcare providers/health authorities, wherever possible.</li> </ul>	<p>Checklist for parents/student s/staff to decide whether to go to school (taking into consideration the local situation) which could include:</p> <ul style="list-style-type: none"> <li>▪ underlying medical conditions/ vulnerabilities;</li> <li>▪ recent illness or symptoms suggestive of COVID-19;</li> <li>▪ special circumstances in the home environment;</li> <li>▪ Special considerations</li> </ul>

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
						ons regarding school transport as needed.
<b>EUROPE</b>						
<b>United kingdom</b>						
England PHE Department of Education	Localised closures (returned on a phased basis from 1 June)	Guidelines apply if anyone in the household develops: <ul style="list-style-type: none"> <li>a fever,</li> <li>or a new continuous cough,</li> <li>or a loss of, or change in, their normal sense of taste or smell (anosmia).</li> </ul>	Daily temperature screening in children is <u>not</u> recommended.	<p>If your child, or someone in your household, has symptoms you should not send them to school or college.</p> <p>If a child in a boarding school shows symptoms, they should initially self-isolate in their residential setting/household.</p>	<p><i>Symptomatic cases while at school:</i> When a child, young person or staff member develops symptoms compatible COVID-19, they should be sent home and advised to self-isolate for 10 days and arrange to have a test. Their fellow household members should self-isolate for 14 days.</p> <p>If a symptomatic child is awaiting collection they should be moved, if possible, to a room where they can be isolated behind a closed door, with appropriate adult supervision if required depending on the age of the child. Ideally, a window should be opened for ventilation. If it is not possible to isolate them, move them to an area which is at least 2 metres away from other people. PPE should be worn by staff caring for the child while they await collection if a distance of 2 metres cannot be maintained (such as for a very young child or a child with complex needs).</p> <p>Any members of staff who have helped someone with symptoms and any pupils who have been in close contact with</p>	NR

Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools

Health Information and Quality Authority

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
					them do not need to go home to self-isolate unless they develop symptoms themselves (in which case, they should arrange a test) or if the symptomatic person subsequently tests positive or they have been requested to do so by NHS Test and Trace.	
Scotland Scottish Government	Localised closures (retuned full-time since 11 August)	<ul style="list-style-type: none"> <li>▪ new continuous cough</li> <li>▪ fever/high temperature loss of, or change in, sense of smell or taste (anosmia)</li> </ul>	NR	It is essential that people do not attend school if symptomatic but instead self-isolate (along with their household) and follow public health guidance. †	<p>Individual &gt;16 years: If the affected person has mild symptoms, they should go home as soon as they notice symptoms and follow public health guidance (minimising contact with others and, where possible, using a private vehicle to go home).</p> <p>Individuals &lt;16 years: Parents/carers should be contacted and asked to make arrangements to pick the child or young person from school (preferably this should be another adult member of their household and not a grandparent) and follow public health guidance. †</p> <p>If a child or young person is awaiting collection try to find somewhere safe for them to sit which is at least 2 metres away from other people. If possible, and it is safe to do so, find a room or area where they can be isolated behind a closed door with appropriate adult supervision if required, depending on the age and needs of the child or young person. If it is possible to open a window, do so for ventilation. The individual should avoid touching people,</p>	NR

Country Public health body	Status schools*	of Symptoms associated COVID-19	with Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
					<p>surfaces and objects and be advised to cover their mouth and nose with a disposable tissue when they cough or sneeze, and then put the tissue in the bin. If no bin is available, put the tissue in a bag or pocket for disposing in a bin later. If you don't have any tissues available, they should cough and sneeze into the crook of their elbow. Where possible, a separate bathroom should be designated for the individual to use.</p> <p>Gloves, aprons and a fluid-resistant surgical mask should be worn by staff if a child or young person becomes unwell with symptoms of COVID-19 and needs direct personal care.</p> <p>Eye protection should also be worn if a risk assessment determines that there is a risk of splashing to the eyes such as from coughing, spitting, or vomiting.</p> <p>Gloves and aprons should be used when cleaning the areas where a person suspected of having COVID-19 has been.</p> <p>If an individual is so unwell that they require an ambulance, phone 999 and let the call handler know you are concerned about COVID-19.</p>	
Northern Ireland  Public Health	Localised closures (Plan to re-open 24 August (prioritising	<ul style="list-style-type: none"> <li>▪ new continuous cough</li> <li>▪ fever/high temperature</li> </ul>	NR	Children and young people who exhibit any symptoms associated with COVID-19 should not attend educational settings.	Symptomatic students must be sent home and advised to follow the PHA guidance for households with possible coronavirus infection. †	NR

Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools

Health Information and Quality Authority

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
Agency of NI, Department of Education	certain year groups and all vulnerable groups) and September (for all other years))	loss of, or change in, sense of smell or taste (anosmia).		As per PHE guidance, if your child, or someone in your household, has symptoms you should not send them to school or college.	A child awaiting collection should be moved, if possible, to a room where they can be isolated behind a closed door. Appropriate adult supervision should be provided as required. Ideally, a window should be opened for ventilation. If it is not possible to isolate the child, move them to an area which is at least 2m away from other people. A risk assessment should be undertaken by the school to address this. If a CYP develops symptoms whilst at school, he/she should be collected by their parents and must not use public transport. After 3 days of isolation an enhanced clean of the isolated location will be conducted, where any incidence of COVID-19 is likely to have happened.	
Wales Welsh Government	Localised closures (phased re-opening since 29 June, plan to be fully open on 1 September)	<ul style="list-style-type: none"> <li>▪ new continuous cough</li> <li>▪ fever/high temperature</li> <li>▪ loss of, or change in, sense of smell</li> <li>▪ loss of, or change in, sense of taste (anosmia)</li> </ul>	<p>The present advice is that it is <b>not necessary</b> to screen temperatures.</p> <p>Learners' parents/carers can check for signs of a high temperature.</p> <p>Staff should of course be vigilant for changes to</p>	<p>Under no circumstances should learners or staff attend schools/setting if they:</p> <ul style="list-style-type: none"> <li>▪ feel unwell, have any of the four identified COVID-19 symptoms or they have</li> <li>▪ tested positive to COVID-19 in the past 10 days</li> <li>▪ live in a household with someone who has symptoms of COVID-19 or has tested</li> <li>▪ positive to COVID-19 in the past 14 days</li> </ul>	<p>Those showing symptoms should be kept separate until they can be collected and taken home. Ideally, this should be in a separate room, supervised at a distance of two metres where possible, but recognising this may not be possible with younger learners.</p> <p>Gloves, aprons and a fluid-resistant surgical mask should be worn if a child or young person becomes unwell with symptoms of COVID-19 and needs direct personal care.</p> <p>Eye protection should also be worn if a risk assessment determines that there is</p>	NR

Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools

Health Information and Quality Authority

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
			learners' temperatures and signs of fever.		<p>a risk of splashing to the eyes such as from coughing, spitting, or vomiting.</p> <p>Gloves and aprons should be used when cleaning the areas where a person suspected of having COVID-19 has been.</p> <p>In the case of an outbreak (2 or more confirmed cases) antigen testing will be undertaken by the local health board for everybody in the 'bubbles' (small, consistent group of no more than 8) that have been effected by the outbreak. Everyone in the school will be tested if it has been established that Welsh Government guidelines for schools has not been followed</p>	
<b>Other European countries</b>						
Austria  Federal Ministry of Education, Science and Research of Austria	Open	<i>COVID-19 associated symptoms (general population):</i> An acute respiratory infection (with or without fever) with at least one of the following symptoms for which there is no other plausible cause: a cough, sore throat, shortness of breath, catarrh in the upper respiratory tract, sudden loss of the sense of taste/smell.	NR	NR	<p>The student should be accommodated in a separate room. The selected room must be well ventilated and disinfected.</p> <p>Testing should be conducted as recommended by the health authorities.</p> <p>In order to minimise the risk of transmission, no one should be allowed to leave the school building until the public health officer has arrived. The health authorities will also decide which people must stay in the school for further investigations to be carried out. It may be possible that people must remain at school for several hours outside of normal hours until the health authorities have made a decision.</p>	NR

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
					The school leadership team will identify contacts of the suspected case (e.g. using class lists, staff lists, timetables and room plans).	
Belgium Ministry of Education and Training The Flemish Government Sciensano	Localised closures  September 1 schools will open at yellow level (low risk).	Infection is usually asymptomatic.  Specific symptoms in children not reported.  A number of symptoms of the coronavirus also coincide with symptoms of allergy and hay fever (e.g. sniffing, sneezing, red eyes and an irritated throat).	Temperature screening <i>not</i> recommended.  Inquire with parents whether a child presenting with cold symptoms has hay fever or allergy. This information may also have been made available upon registration of the child.	Children who are sick should be kept at home.  If there is a suspicion that parents send their sick child to school, address the parents about the fact that you should keep sick children in isolation.  Children of parents or anyone living in the same household who tests positive should stay at home for 14 days.	<ul style="list-style-type: none"> <li>▪ If a child is sick at school, keep him/her in isolation.</li> <li>▪ The school or the parents report the suspected case to the CLB.</li> <li>▪ Tests are taken in consultation with the GP. Pending the test result, the tested student cannot go to school.</li> <li>▪ A certificate will be issued to justify the absence.</li> <li>▪ If there is a strong suspicion of transmission to others, the CLB doctor will decide not to bring the close contacts of the student to school temporarily, pending the test result.</li> </ul> <p>A step-by-step procedure following the identification of a case in school has been set out.</p>	NR
Denmark The Danish Health Authority Ministry of Children and Education	Open (First country to re-open childcare and primary education from 15 April).	Typical symptoms resemble those of the flu and other upper respiratory tract infections: <ul style="list-style-type: none"> <li>▪ Fever</li> <li>▪ dry cough</li> <li>▪ fatigue.</li> </ul> <p>Other early, but less common symptoms, include:</p>	NR	Children should basically follow the same recommendations as adults.  Students should stay at home if unwell.  The child's childcare institution/school should be informed so that parents of other children who may have	Children with symptoms of COVID-19 should also be isolated and tested, and follow the same precautions as adults when testing positive.  If a student becomes unwell during the school day they must go home.  If there is an outbreak of novel coronavirus in schools or daycare, management must be notified so the	NR

*Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools*

Health Information and Quality Authority

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
		<ul style="list-style-type: none"> <li>▪ Headache</li> <li>▪ muscle pain</li> <li>▪ a sore throat, nausea</li> <li>▪ loss of taste and smell.</li> </ul> <p>In many cases, you will not be able to distinguish mild symptoms of COVID-19 from those caused by the common cold or the flu.</p> <p>Most children develop only mild symptoms of COVID-19, but children should generally follow the same guidance as adults.</p>		been exposed to infection can be informed, and so that the other children can be tested.	parents of exposed children can be informed, and the children tested.	
France Ministry of National Education, Youth and Sport	Open (Returned 22 June)	<ul style="list-style-type: none"> <li>▪ Cough</li> <li>▪ Sneezing</li> <li>▪ shortness of breath</li> <li>▪ sore throat</li> <li>▪ fatigue</li> <li>▪ digestive problems</li> <li>▪ feeling of fever</li> </ul>	<p>Parents should monitor the appearance of symptoms in their children, in particular by taking the temperature before leaving for school.</p> <p>The health authorities consider that the</p>	Parents should not send their children to school, college or high school in the event of a fever (38 ° C or more) or in the event of the appearance of symptoms associated with COVID-19 in the student or in his/her family.	<p>In the event that a person presents symptoms within the establishment, the action to be taken is as follows:</p> <ul style="list-style-type: none"> <li>▪ Immediate isolation of the person:                             <ul style="list-style-type: none"> <li>○ If it is an adult: with a mask if the return home is not immediately possible</li> <li>○ If it is a pupil: with a mask for children of age to wear one, in the infirmary or in a dedicated room allowing their supervision while</li> </ul> </li> </ul>	NR

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
			virological or serological test of teachers and children prior to the reopening of schools and educational establishments is unnecessary.		<p>awaiting their return home or medical care.</p> <ul style="list-style-type: none"> <li>Imperative respect for barrier gestures.</li> <li>If it is a pupil, call without delay of the parents / legal guardians so that they come to collect the pupil while respecting the barrier gestures.</li> <li>Reminder by the school principal or the head of the establishment of the procedure to be followed, namely: avoid contact and consult the attending physician who will decide on the opportunity and methods of screening, if necessary.</li> </ul> <p>The methods of identifying and screening contacts and quarantine of potential cases will be defined by the health authorities in conjunction with the academic authorities.</p>	
Germany Federal Ministry of Health Robert Koch-Institut	Localised school closures (Began returning 3 August)	<p>The most frequent symptoms are:</p> <ul style="list-style-type: none"> <li>fever of over 38°C</li> <li>coughing</li> <li>runny nose</li> <li>headache</li> <li>aching limbs</li> <li>fatigue</li> <li>sore throat.</li> </ul> <p>Some people temporarily lose their</p>	NR	<p><i>Symptomatic students outside the school environment:</i> People with symptoms (even mild) are not allowed to enter the facility.</p>	<p><i>Symptomatic students in the school environment:</i> If symptoms present during a lesson an emergency isolation must take place and the family must be notified. Medical clarification should be sought, if necessary.</p> <p>Current contact details of the parental home or the custodian should be available.</p> <p>Quarantine measures for close contacts should be implemented promptly and</p>	NR

*Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools*

Health Information and Quality Authority

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
		<p>sense of smell and/or taste. Some people may experience pneumonia or shortness of breath.</p> <p>If a child has a cough it does not automatically mean that he/she is infected with the novel coronavirus. A paediatrician or family physician should be consulted in cases of uncertainty.</p>			consistently according to current recommendations.	
Iceland  Ministry of Education, Science and Culture  Ministry of Health	Open (Remained open throughout)	<ul style="list-style-type: none"> <li>▪ temperature above 38°C,</li> <li>▪ cough</li> <li>▪ bone and muscle pain</li> <li>▪ fatigue.</li> </ul>	NR	Primary school children and employees should not attend school if they have the flu or symptoms similar to COVID-19, such as a temperature above 38°C, a cough, bone and muscle pain or fatigue.	NR	NR
Norway.  NIPH and Directorate for Education and Training.	Open (phased reopening started in April)	The most commonly described symptoms of COVID-19 are initially sore throat, cold and mild cough, as well as malaise, headache and muscle	NR	<p>Sick persons must not be at school.</p> <p>Anyone with new-onset respiratory infection should be sent home and kept at home until the condition is clarified.</p>	It is important that students who get symptoms of a respiratory infection, go home (after notification to parents) or be picked up as soon as possible. Sick students should, if possible, not take public transport.	Decision-tree developed by NIPH

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
		<p>aches. Abdominal pain may also occur.</p> <p>Pupils and staff with typical symptoms of pollen allergy (known pollen allergy, runny nose, and runny / itchy eyes) may attend school.</p> <p>Many younger children often have runny noses without other symptoms of respiratory infection, and especially after they have been outside. These children can come to school if the child does not have a fever and is otherwise healthy.</p>		<p>Pupils (primary and secondary) and staff should not attend school even with mild respiratory symptoms and feelings of illness.</p> <p>If someone in the household has symptoms of a respiratory infection, but not confirmed COVID-19, the pupil and the employee must attend school as normal. However, these must go home from school if they get symptoms.</p> <p>If your child has hay fever or a chronic cold every year, you will recognise the symptoms. In that case, the child may go to school as usual. If you are uncertain whether the symptoms are different than usual, keep your child at home until the (new) symptoms go away.</p>	<p>The student who must be picked up must wait in a separate room with an employee or outside where there are no other children.</p> <p>If possible, the employee should keep a distance of two meters, but a balance must be struck in relation to the student's age and need for care.</p> <p>If it is not possible to keep a distance of two meters, and the student is comfortable with it, the student should wear a mask to reduce the spread of infection to others. If the student does not want to wear a mask, the adult should wear a mask if a distance of two meters cannot be observed. If a toilet is needed, this should not be used by others until it has been cleaned. Anyone who has been in contact with the student must wash their hands. Afterwards, rooms are cleaned.</p> <p><b>Boarding schools</b> must make arrangements to isolate sick students who are not allowed to return home immediately. These must not be associated with other students and must be in a separate room with access to a private bathroom / toilet. Food should be served in the room. Afterwards, rooms, toilets and other areas where the student has stayed with regular cleaning products are cleaned.</p>	

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
					Students and staff who are identified as close contacts (in boarding schools) and must be in quarantine should also travel home during the quarantine period. If they cannot go home, separate areas must be set aside for this. People in quarantine should not stay in common living rooms.	
Spain Ministry of Health, Consumer Affairs and Social Welfare  Ministry of education and Vocational Training	Localised closures.  Classes continued through distance learning.	General symptoms in all age groups: <ul style="list-style-type: none"> <li>fever</li> <li>cough</li> <li>feeling short of breath.</li> </ul> <p>In some cases there may also be:</p> <ul style="list-style-type: none"> <li>decreased smell and taste</li> <li>chills</li> <li>sore throat</li> <li>headache</li> <li>general weakness</li> <li>muscle aches</li> <li>diarrhea, or vomiting.</li> </ul>	Families should monitor for symptoms associated with COVID-19 every day before leaving home.	Children with symptoms compatible with COVID-19, diagnosed with COVID-19, or who are in a home quarantine period due to having had contact with someone with symptoms or diagnosed with COVID-19 cannot go to the educational centre.	<p><i>Symptomatic students in the educational facility:</i></p> <ul style="list-style-type: none"> <li>The educational centre should follow a previously planned protocol of action</li> <li>The student will be taken to a separate space for individual use (the room must have adequate ventilation and waste disposal facilities)</li> <li>a surgical mask will be used by both those who have become symptomatic and the adult taking care of him/her until their parents or guardians arrive</li> <li>the family should be contacted.</li> </ul> <p>In case of presenting with severe symptoms or respiratory distress, call the emergency services.</p>	NR
Sweden The Public Health Agency of Sweden	Open (Remained open throughout)	Symptoms include (all age groups) <ul style="list-style-type: none"> <li>Cough</li> <li>Fever</li> <li>Difficulty breathing</li> <li>Runny nose</li> </ul>	NR	Staff and children who have any symptoms of illness should stay at home.  As long as siblings or other members of the family do not show symptoms of disease they	NR	NR

Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools

Health Information and Quality Authority

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
		<ul style="list-style-type: none"> <li>▪ Blocked nose</li> <li>▪ Sore throat</li> <li>▪ Headache</li> <li>▪ Nausea</li> <li>▪ Muscle and joint pain.</li> </ul> <p>Difficult to distinguish between the disease and other types of illness, such as hay fever.</p> <p>Infected children only develop mild symptoms.</p>		<p>can go to school, preschool or their workplace.</p> <p><i>Individuals who suffer from allergy (general guidance):</i> Stay home even if you have mild symptoms like a runny or blocked nose, a slight cough or a sore throat.</p>		
Switzerland FOPH.	Open (Reopened May)	<p>Symptoms of an acute respiratory illness or sudden loss of sense of smell and/or taste</p> <p>Children under age of 12 do not have to be tested in all cases. The child's doctor will decide with the parents whether a test is needed, taking account of the FOPH's recommendations.</p>	NR	People showing symptoms of illness should stay at home and get tested.	NR	NR
The Netherlands	Localised closures.	<p>Main symptoms:</p> <ul style="list-style-type: none"> <li>▪ colds symptoms (such as runny</li> </ul>	NR	Children 0-18 years with complaints related to COVID-19 should stay at home and testing can be organised.	NR	NR

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
Ministry of Health, wellbeing and sports	(Partial reopened 11 May)	<p>nose, sneezing and sore throat)</p> <ul style="list-style-type: none"> <li>▪ cough</li> <li>▪ chest tightness</li> <li>▪ sudden loss of smell or taste</li> <li>▪ fever above 38 degrees.</li> </ul> <p>Young children often have a persistent cold. Children from 0 to 4 years old and children in groups 1 or 2 (age 4 to 5) of primary school can go to childcare or after-school care with a nose cold.</p>		<p>Until the test result is known, the person with complaints stays at home. If this person has a fever and / or shortness of breath, all housemates must also stay at home until after the test result.</p> <p><i>Circumstances in which a child cannot attend:</i></p> <ul style="list-style-type: none"> <li>▪ Children in groups 1 or 2 (age 4 to 5) can go to school with a cold, except if the child also has a <b>fever or other COVID-19 complaints;</b></li> <li>▪ If a child is a contact of a patient with a confirmed SARS-CoV-2 infection</li> <li>▪ If someone in the child's household has a fever above 38 degrees Celsius and/or shortness of breath.</li> </ul> <p><b>Rationale:</b> In the first two weeks of June 2020, 3,500 children aged 0 to 6 years old who had symptoms were tested. 0.5% of these children tested positive. That percentage was higher in children who were tested in the same period because they had been in</p>		

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
				contact with a COVID-19 patient: 14.3%.		
<b>NORTH AMERICA</b>						
Canada Government of Canada	Country-wide closures since March.	<p>Symptoms of COVID-19 can vary from person to person. Symptoms may also vary in different age groups. Some of the more commonly reported symptoms include:</p> <ul style="list-style-type: none"> <li>▪ new or worsening cough</li> <li>▪ shortness of breath or difficulty breathing</li> <li>▪ temperature equal to or over 38°C</li> <li>▪ feeling feverish</li> <li>▪ chills</li> <li>▪ fatigue or weakness</li> <li>▪ muscle or body aches</li> <li>▪ new loss of smell or taste</li> <li>▪ headache</li> <li>▪ gastrointestinal symptoms (abdominal pain, diarrhoea, vomiting)</li> <li>▪ feeling very unwell</li> </ul>	Follow directions from your PHA about entry screening of children/youth, staff and volunteers for symptoms of COVID-19 or for exposure to COVID-19 in the past 14 days, before allowing the child/youth, staff or volunteer to access the setting	Prohibit individuals who have symptoms of/or have had exposure to COVID-19 from entering the child/youth setting.	<p>Implement a procedure for isolating children/youth who become sick in the setting.</p> <p>For those who have symptoms consistent with COVID-19, it will be important to ensure:</p> <ul style="list-style-type: none"> <li>▪ The individual is quickly given a mask to wear, if not already wearing one, with a medical mask preferred over a NMM                             <ul style="list-style-type: none"> <li>○ Schools should plan to have masks available for situations of managing respiratory-like illness in the event that the ill individual does not have their own mask</li> <li>○ <b>masks should not be placed on</b> anyone who is unconscious, incapacitated or otherwise unable to remove the mask without assistance</li> </ul> </li> <li>▪ the individual is isolated and remains in a designated space (for example, sick room), while avoiding stigmatization and discrimination, until they can go home safely</li> </ul>	NR

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
		<ul style="list-style-type: none"> <li>▪ Children have been more commonly reported to have abdominal symptoms, and skin changes or rashes</li> </ul>			<ul style="list-style-type: none"> <li>▪ Additional consideration is given to individuals with disabilities, such as having someone wait with them to assist with specific needs</li> <li>▪ Plans address the potential if a private vehicle or walking is not an option. Plans must not include using public transit</li> <li>▪ A distance of 2 metres between the ill person and others is maintained, and staff know what to do if 2 meters cannot be maintained and/or direct care is unavoidable (for example, the use of personal protective equipment)                             <ul style="list-style-type: none"> <li>○ The PHA should be consulted for this advice</li> </ul> </li> <li>▪ Hand hygiene and respiratory etiquette are practiced while the ill person is waiting to be picked up/excused/transported                             <ul style="list-style-type: none"> <li>○ Tissues should be provided for the ill person to ensure their use with respiratory etiquette</li> <li>○ Proper disposal of the tissue and hand hygiene should be performed after coughing or sneezing</li> </ul> </li> <li>▪ Environmental cleaning of the designated space, other spaces</li> </ul>	

Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools

Health Information and Quality Authority

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
					or shared items used during the day (for example, bathroom, desk), and other medical items (for example, basin), should be conducted once the ill person has been picked up.	
United States CDC	Localised closures (the majority of states have mandated closures, including until the end of the academic year. Some states have recommended, but not mandated, school closures)	<ul style="list-style-type: none"> <li>▪ Temperature 100.4 degrees Fahrenheit (38° Celsius) or higher when taken by mouth</li> <li>▪ Sore throat</li> <li>▪ New uncontrolled cough that causes difficulty breathing (for students with chronic allergic/asthmatic cough, a change in their cough from baseline)</li> <li>▪ Diarrhoea, vomiting, or abdominal pain</li> <li>▪ New onset of severe headache, especially with a fever</li> </ul>	<ul style="list-style-type: none"> <li>▪ CDC does <u>not</u> currently recommend universal symptom screenings be conducted by schools.</li> <li>▪ Parents or caregivers should be strongly encouraged to <u>monitor</u> their children for signs of infectious illness every day.</li> </ul>	<p>Students who are sick should not attend school in-person</p> <p>The symptoms listed are considered in conjunction with close contact/potential exposure to determine whether a child should be excused in line with existing school policy or requires further evaluation by healthcare provider and possible testing.</p> <p>Anyone who tests positive for COVID-19 should stay home and self-isolate for the timeframe recommended by public health officials.</p>	<p>Symptomatic students should be placed in an isolation area separate from staff and other students. Staff who interact with ill students should use Standard and Transmission-Based Precautions. Schools should be mindful of appropriate safeguards to ensure that students are isolated in a non-threatening manner, within the line of sight of adults, and for very short periods of time.</p> <p>Students who are sick should go home or to a healthcare facility depending on how severe their symptoms are.</p> <p>If a school needs to call an ambulance or bring a student to the hospital, they should first alert the healthcare staff that the student may have been exposed to someone with COVID-19.</p> <p>Wait at least 24 hours before cleaning and disinfecting any isolation area. If 24 hours is not feasible, wait as long as possible.</p>	CDC have developed tools for schools that elect to encourage parents, guardians, or caregivers to conduct daily home screenings
<b>AUSTRALASIA</b>						
Australia.	Open	The most common symptoms of COVID-19 in children are	For boarding schools, consider daily	If your child is sick, they must not go to school. You must keep	Staff, children or young people at school experiencing symptoms compatible with COVID-19 (fever, cough or sore throat)	NR

Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools

Health Information and Quality Authority

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
Department of Health, Department of Education, Skills and Employment.		cough, fever, runny nose and gastrointestinal symptoms.	screening of symptoms using a questionnaire. Student checks should include both physical and mental health checks. Wide-scale temperature checking is not recommended however.  NR for all other students	them at home and away from others.  If a member of the school community is suspected or confirmed to have COVID-19, consider withdrawing any student with disability (and any siblings) from school.	should be isolated in an appropriate space with suitable supervision, and collected by a parent/carer as soon as possible.  For boarding school students, it may be impractical and/or undesirable (e.g. insufficient health infrastructure support in home environment, inappropriate for return to a vulnerable community whilst infectious) for symptomatic students or close contacts to return home.  Isolating/quarantining at the facility must meet expected criteria for any case in the community (i.e. single room, separation from others, PPE for staff consistent with health advice).	
New Zealand  Ministry of Education.	Open	The vast majority of children and young people with symptoms consistent with COVID-19 will not have COVID-19. Symptoms of COVID-19 can include new onset or worsening of one or more of the following: <ul style="list-style-type: none"> <li>▪ Cough</li> <li>▪ Fever</li> <li>▪ Sore throat</li> <li>▪ Runny nose</li> </ul>	Temperature screening is <b>not recommended</b>  School staff are to <b>observe</b> students on arrival into the classroom checking for symptoms and ask those presenting as unwell to go home (or arrange for parents and	Unless directed by the Medical Officer of Health, the only people who need to stay away from school are those who are: <ul style="list-style-type: none"> <li>▪ Unwell.</li> <li>▪ Self-isolating</li> <li>▪ Waiting for COVID test results.</li> </ul> Everyone else should be at school.  Before a child is sent home, they should be feeling unwell and there should always be a conversation with the caregiver to determine whether there is another explanation for their	Boarding schools: A hostel owner must take all reasonable steps to separate any boarder who is ill from other boarders and contact their public health authority.  Other settings: NR	NR

Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools

Health Information and Quality Authority

Country Public health body	Status of schools*	Symptoms associated with COVID-19	Identification of symptoms	Stay at home protocol	Isolation of symptomatic students	Symptom identification tools
		<ul style="list-style-type: none"> <li>Shortness of breath/difficulty breathing</li> <li>Temporary loss of smell</li> </ul> <p>Shortness of breath can indicate pneumonia, and requires urgent medical attention.</p> <p>Children with asthma, hay fever, allergies, ear infections or other acute or chronic conditions may have similar symptoms.</p>	<p>caregivers to come and pick up).</p> <p>Hostel staff are to <b>observe</b> boarders, checking for COVID-like symptoms and ask those presenting as unwell to go into an isolated area while medical advice is sought.</p>	<p>child's symptoms that may mean that they do not pose a risk to others and do not need to go home.</p> <p>Principals at state and state-integrated schools have authority to preclude a student from attending if they believe on reasonable grounds they may have a communicable disease under section 19 of the Education Act</p>		
<b>ASIA</b>						
Singapore. Ministry of Health, Ministry of Education	Open since 29 June	Watch out for students with fever or respiratory symptoms, such as sneezing, breathlessness, runny nose, loss of smell, cough, or sore throat.	Daily temperature-taking and visual screening for all students and staff.	Students and staff who are unwell, or who have household members on Home Quarantine Order/Stay Home Notice or have adult household members with flu-like symptoms such as fever and cough, are required to stay away from school.	NR	NR

**Key:** CDC - Centers for Disease Control and Prevention; CLB – centre for pupil guidance. COVID-19 – Coronavirus disease 2019; FOPH – Federal Office of Public Health; GGD – Municipal health service; NIPH – Norwegian Institute of Public Health; NR – not reported; PHA – Public Health Agency; PHE – Public Health England; SARS-CoV-2 – Severe acute respiratory syndrome coronavirus 2.

\* Information regarding school closures during the COVID-19 pandemic is based on the most up-to-date information published on the [UNESCO](https://www.unesco.org/en/sars-cov-2) website (Updated 03/08/2020). Each country is categorised into one of the following categories:

Country-wide closure: Government-mandated closures of educational institutions affecting at least 70% of the student population enrolled from pre-primary through to upper secondary levels.

Localised closures: Government-mandated closures of educational institutions affecting up to 70% of the student population enrolled from pre-primary through to upper secondary levels either at national level, or in at least one district/region/administrative unit of an education system with a decentralised governance structure such as Federal States.

Open: Governments have not closed educational institutions in the context of COVID-19, or have officially announced that schools are allowed to re-open following localised or country-wide closure.

<sup>†</sup> Specific clinical presentation in children is not described. It is assumed that symptom identification in children follows the same list of common symptoms reported for the general population.

**Appendix 2: Summary of recommendations from the included public health guidance documents regarding organisational issues associated with symptomatic children and young people in schools**

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
<b>INTERNATIONAL OR REGIONAL PUBLIC HEALTH GUIDANCE</b>				
ECDC	<p><u>Quarantine</u> Students and staff who have shared a classroom with the confirmed case and during the same time period, are considered high-risk exposure or close contacts. Quarantine is required for 14 days from last exposure to a COVID-19 case.</p> <p>Children who live in a household where someone has been confirmed as having COVID-19 should quarantine and not attend school.</p> <ul style="list-style-type: none"> <li>▪ If the household case is isolated or managed in hospital, quarantine for the child should be for 14 days following his/her last exposure to the case.</li> <li>▪ If the case is managed at home and not isolated, the 14 days of quarantine for the child should be counted from the day when all three of the following criteria are met for the case: eight days after the onset of symptoms AND resolution of fever AND clinical improvement of other symptoms for at least for three days.</li> </ul> <p><u>Isolation</u> 8 days after the onset of symptoms AND resolution of fever AND clinical improvement of other symptoms for at least for three days.</p>	Reactive school closures following community outbreaks, and cases or outbreaks in schools are unlikely to be timely enough to have a significant impact on the dynamics of the local epidemic, but may need to be made due to absenteeism, or staff and parental concerns.	NR	NR
WHO	<p><u>Quarantine</u> Ensure students who have been in contact with a COVID-19 case stay home for <u>14 days</u>.</p> <p><u>Self-isolation (all patients)</u> Criteria for discharging patients from isolation (i.e., discontinuing transmission-based precautions) without requiring retesting*:</p>	<p><i>Considerations for re-opening or keeping schools open:</i></p> <p>Decisions should be guided by a risk management approach to maximize the educational, well-being and health benefit</p>	<ul style="list-style-type: none"> <li>▪ Detection of new COVID-19 cases;</li> <li>▪ Success of contact tracing;</li> <li>▪ School attendance (Information on school drop-out, disaggregated for sex,</li> </ul>	Checklist for school administrators, teachers and staff.

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
	<ul style="list-style-type: none"> <li>For symptomatic patients: <u>10 days after symptom onset, plus at least 3 additional days without symptoms</u> (including without fever<sup>†</sup> and without respiratory symptoms<sup>‡</sup>)</li> <li>For asymptomatic cases<sup>§</sup>: <u>10 days after positive test</u> for SARS-CoV-2.</li> </ul> <p>These criteria apply to all COVID-19 cases regardless of isolation location or disease severity.</p> <p>Countries may choose to continue to use testing as part of the release criteria. If so, the initial recommendation of two negative PCR tests at least 24 hours apart can be used.</p>	<p>for students, teachers, staff, and the wider community.</p> <p>The local situation and epidemiology of COVID-19 may vary from one place to another within a country.</p> <ol style="list-style-type: none"> <li>Benefits and risks: what are the likely benefits and risks to children and staff of open schools? Including consideration of: <ul style="list-style-type: none"> <li>Disease trends: are COVID-19 cases being reported in the area?</li> <li>Effectiveness of remote learning strategies</li> <li>Impact on vulnerable and marginalized populations (girls, displaced, disabled, etc.)</li> </ul> </li> <li>Detection and response: are the local health authorities able to act quickly?</li> <li>Collaboration and coordination: is the school collaborating with local public health authorities?</li> </ol> <p>A careful assessment of the school setting and ability to maintain COVID-19 prevention and control measures needs to be included in the overall risk analysis.</p>	<p>age, disability and socio-economic status)</p> <p>Notify public health authorities in case of a positive COVID-19 case.</p> <p>Alert local health authorities about large increases in student and staff absenteeism due to respiratory illnesses.</p>	
<b>EUROPE</b>				
<b>United Kingdom</b>				
England  PHE	<p><u>Isolation</u></p> <p>Where the child, young person or staff member with suspected COVID-19 tests negative they can return to their setting and the fellow household members can end their self-isolation.</p>	<p>The local health protection team will advise if additional action is required based on outbreaks or increased absence rates,</p>	<p>If a school or college experiences an outbreak, either because they have 2 or more confirmed cases of</p>	<p>NR</p>

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
Departm ent of Educatio n	<p>Schools should not request evidence of negative test results or other medical evidence before admitting children or welcoming them back after a period of self-isolation.</p> <p>if someone tests positive, they should follow the 'stay at home: guidance for households with possible or confirmed coronavirus (COVID-19) infection' and must continue to self-isolate for at least <u>10 days</u> from the onset of their symptoms and then <u>return to school only if they do not have symptoms other than cough or loss of sense of smell/taste</u>. If they still have a high temperature, they should keep self-isolating until their temperature returns to normal.</p> <p><u>Quarantine</u> If someone in a class or group that has been asked to self-isolate develops symptoms themselves within their <u>14-day</u> isolation period they should follow 'stay at home: guidance for households with possible or confirmed coronavirus (COVID-19) infection'. They should get a test, and:</p> <ul style="list-style-type: none"> <li>▪ if the test delivers a negative result, they must remain in isolation for the remainder of the 14-day isolation period.</li> <li>▪ if the test result is positive, they should inform their setting immediately, and must isolate for at least 10 days from the onset of their symptoms. Their household should self-isolate for at least 14 days from when the symptomatic person first had symptoms.</li> </ul> <p>The health protection team will carry out a rapid risk assessment to confirm who has been in close contact with the person during the period that they were infectious, and ensure they are asked to self-isolate. Household members of those contacts who are sent home do not need to self-isolate themselves unless the child, young person or staff member who is self-isolating subsequently develops symptoms</p>	<p>though whole school closures will generally not be necessary.</p>	<p>COVID-19 among pupils or staff in their setting within 14 days, or they see an increase in pupil or staff absence rates due to suspected or confirmed cases of COVID-19, they will need to contact their local health protection team.</p>	

*Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools*

Health Information and Quality Authority

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
	<p>Other members of their household (including any siblings) should self-isolate for 14 days from when the symptomatic person first had symptoms.</p>			
<p>Scotland  Scottish Governm ent</p>	<p><u>Self-isolation</u> Students must complete recommended period of self-isolation/quarantine as per national stay at home guidance. † Everyone who develops symptoms of COVID-19, whether or not they have been tested, should self-isolate for 10 days.</p> <p>You can return to work and your usual activities if you haven't had a high temperature in 48 hours, without the need for medication to control fever</p> <p><u>Quarantine</u> People who have been in close contact with someone who has COVID-19 will be asked to self-isolate for 14 days.</p>	<p>In the event of a local outbreak of the virus, a school or a number of schools may be closed temporarily to help control transmission.</p> <p>Any discussion of possible school closures should take place between schools, local authorities and local health protection teams.</p>	<p>If schools have two or more confirmed cases of COVID-19 within 14 days, or an increase in background rate of absence due to suspected or confirmed cases of COVID-19, they may have an outbreak. In this situation schools should make prompt contact with their local HPT and local authority.</p>	<p>A strategic framework underpins the re-opening of schools and early learning and childcare provisions.</p>
<p>Northern Ireland  Public Health Agency of NI, Departm ent of Educatio n</p>	<p><u>Self-isolation</u> Students can return to school when they have completed the necessary period of isolation/quarantine as advised by the Test, Trace and Protect service. †</p> <p>If everyone with symptoms who was tested in their household receives a negative result, they can return to school providing they are well enough and have not had a temperature for 48 hours.</p> <p>Where the result is positive, they should follow PHA isolation guidance.†</p> <p><u>Quarantine</u> PHA guidance under the Test and Trace and Protect programme will be applied for all staff or pupils in contact with someone who tests positive for COVID-19. Test and Trace staff will contact anyone with a positive test and trace their contacts over a period determined by the Test, Trace and Protect staff seeking</p>	<p>A clinical risk assessment will be undertaken by the PHA duty officer (if two or more cases are reported within a 14 day period). The PHA duty room officer will advise what further action to take</p>	<p>If two or more children and/or staff are positive for COVID-19 within a 14 day period, the head teacher or person in charge of the setting must contact the PHA.</p>	<p>'New School day Framework' for re-opening schools.</p>

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
	<p>information on where that individual has been in contact with someone for 15 minutes or more and less than 2m social distance. Isolation guidance will then be provided that is context specific and may result in friendship groups, regular contacts and potentially an entire class or 'bubble' being instructed to self-isolate at home.</p> <p>Pupils can return to school when they have completed the necessary period of isolation as advised by the Test, Trace and Protect service.</p> <p>Staff or pupils who have been part of the same 'bubble' as anyone who has tested positive for COVID-19, must likewise follow PHA guidance and self-isolate and undertake a test under the Test and Trace and Protect system. They can return to school when they have a negative test result or have undertaken the necessary period of isolation after a positive test result.</p> <p>For international boarding school CYP - While reducing the risk of the transmission of COVID-19 remains the priority, schools should consider the emotional wellbeing of students, especially those who are already vulnerable to mental health issues. This includes those who may have had to complete repeated periods of isolation (during one holiday period) in their 'home' country and then in the UK</p>			
<p>Wales. Welsh Governm ent</p>	<p><u>Self-isolation</u> If you have had symptoms of COVID19, then you may end your self-isolation after <u>10 days</u> and return to your normal routine if <u>you do not have symptoms other than cough or loss of sense of smell or taste</u>. If you still have a high temperature, keep self-isolating until your temperature returns to normal, in line with public health guidance. †</p> <p><u>Quarantine</u> At the end of the 14-day household isolation period anyone in the household who has not become unwell can return to their normal routine in line with PH guidance. †</p>	<p>A positive test on site does not require closure of that site. If there are multiple cases of COVID-19 in a school then experts from across the NHS and local government will work together to prevent ongoing transmission within the school</p>	<p>NR</p>	<p>Hierarchy of risk controls</p>
<p><b>Other European Countries</b></p>				

*Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools*

Health Information and Quality Authority

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
Austria  Federal Ministry of Education, Science and Research of Austria	<p><u>Self-isolation</u> Individuals with signs and symptoms should not leave home and should contact health care professionals or emergency services by phone.</p>	<p>Decision is made under the instructions of the locally responsible health authority.</p> <p>If a case is confirmed, further measures will be taken (e.g. closure of the school, disinfection, etc.) on the basis of the Epidemics Act.</p>	<p>If a case is identified at the school the school management must inform the responsible directorate of education and locally responsible health authorities.</p>	<p>Checklists on how to deal with a suspected case at school:</p> <p>Scenario A: The person concerned is present at the school.</p> <p>Scenario B: The person concerned is not present at the school.</p>
Belgium  Ministry of Education and Training  The Flemish Government  Sciensano	<p><u>Self-isolation</u> Staff and students who test positive for the coronavirus must be quarantined for a minimum of 7 days.</p> <p><i>Children with confirmed COVID-19, with mild symptoms, without hospitalisation:</i> The child may return to school or childcare 7 days after the onset of symptoms, provided that during the last 3 they have not had a fever AND that the symptoms have improved significantly.</p> <p><i>Children with confirmed or potential COVID-19, with hospitalisation:</i> The child may return to school or childcare, in consultation with the doctor, and at least 7 days after the onset of symptoms.</p> <p><u>Quarantine</u></p> <ul style="list-style-type: none"> <li>▪ Pupils and school staff must self-isolate for a minimum of 14 days.</li> </ul>	<p>The school cannot be closed without consulting the CLB doctor.</p> <p>The decision to close or re-open the school is taken by the relevant health authorities in consultation with the CLB doctor.</p> <p>For children under 6 years old: If a second child in the same daycare bubble or from the same kindergarten class develops symptoms of COVID-19 within 14 days of the first confirmed case, that child should be tested. If the result is positive (that is, a second confirmed case), it is a cluster and: the bubble/kindergarten is closed and all children and staff must quarantine.</p>	<p>NR</p>	<p>Comprehensive plan for educational institutions at all levels of education. This plan uses 4 possible pandemic levels: from zero risk (green level), over low (yellow level) and moderate (orange level) risk to high risk (red level).</p>

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
	<ul style="list-style-type: none"> <li>▪ Those who do not become ill during the quarantine period return to school.</li> <li>▪ Those who become ill during quarantine stay at home as long as they are sick. The period of absence is extended with a disease certificate.</li> </ul> <p>For children under 6 years old: If a second child in the same daycare bubble or from the same kindergarten class develops symptoms of COVID-19 within 14 days of the first confirmed case, that child should be tested. If the result is positive (that is, a second confirmed case), it is a cluster and: the bubble/kindergarten is closed and all children and staff must quarantine. If the test is negative, the class can remain open and quarantine is not required.</p> <p>Individuals who have received a positive PCR test previously, should not be quarantine again.</p> <p><i>Children with parents or household members with confirmed COVID-19:</i> If they are asymptomatic, they may only return to school or childcare 14 days after the last risky contact with the infected family member OR 14 days after the infected family member was finished their home isolation period (if the child continues to have close contact with the family member as long as they were contagious). If the child shows symptoms, he/she should be tested. If:  <ul style="list-style-type: none"> <li>▪ the test is positive: the child is a confirmed case;</li> <li>▪ the test is negative: take measures such as for asymptomatic persons.</li> </ul> </p>			
Denmark The Danish	<p><u>Self-isolation:</u> Symptomatic: Do not take children to childcare institutions/school until <u>48 hours after symptoms have disappeared.</u></p>	The closure will depend on the probability of the spread of infection, which depends, among other things, on the physical and hygienic conditions and how much	A student will be registered as absent if the parents chose to keep the child at home or the child choses	NR

*Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools*

Health Information and Quality Authority

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
<p>Health Authority</p> <p>Ministry of Children and Education</p>	<p>Asymptomatic: Children who do not have any symptoms and who do not develop symptoms must stay at home for <u>7 days</u> after being tested.</p> <p>The child can attend daycare/school if the initial test is negative, and the child still shows no symptoms. If the child is tested positive, do not send the child to school/daycare.</p> <p>Students considered to be "close contacts" of a confirmed COVID-19 case must stay at home in self-isolation until a negative COVID-19 test is available. For children under 12 years of age, if they do not have symptoms and are not tested, one can choose to keep the child at home for <u>7 days</u> after the last close contact took place. If the child has not had symptoms in the 7 days, the child can again attend day care / school.</p> <p><u>Quarantine</u> Students must stay at home for <u>14 days</u> after an unnecessary trip to countries that they are discouraged from visiting.</p> <p><i>General guidance:</i> Any person with symptoms must stay home until 48 hours after he/she is no longer ill. However, symptoms such as loss of taste and smell can linger for a long time even though the person is no longer considered infectious. He/she can, therefore, end self-isolation if these are your only remaining symptoms. You do not need to be tested again in order to be regarded as having recovered.</p> <p>If you have no symptoms, you should still self-isolate until <u>7 days</u> after you have taken the test.</p>	<p>interaction the children have with each other. The delimitation should include the narrowest possible circle e.g. the playgroup, the classroom, several classroom if a toilet was used.</p> <p>The school must submit a justification for the application of emergency education regulations to the Danish Agency for Education and Quality.</p>	<p>to stay at home, and the reason for absence is not justified.</p> <p>Primary and lower secondary schools must report student absenteeism to the Agency, which may lead to a deduction in the child family benefit.</p>	
France	<p><u>Self-isolation</u> Parents should not send their children to school in the event of the appearance of symptoms suggesting Covid-19.</p>	<p>The need for school closure will vary depending on the geographic area and circulation levels of the virus.</p>	<p>Monitoring of absenteeism.</p>	<p>Educational continuity plan:</p>

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
Ministry of National Education, Youth and Sport	<p>The student will only be able to return to class after an opinion from the attending physician, the doctor from the Covid-19 platform or the national education doctor.</p> <p><u>Quarantine</u> Parents should not send their children to school in the event of a confirmed case in the child's family.</p> <p>The student will only be able to return to class after an opinion from the attending physician, the doctor from the Covid-19 platform or the national education doctor.</p>			<p>Hypothesis 1: active circulation of the virus, localized, requiring the reinstatement of a strict health protocol.</p> <p>Hypothesis 2: very active circulation of the virus, localized, requiring the closure of schools, colleges and high schools in a determined geographical area.</p>
Germany Federal Ministry of Health Robert Koch-Institut	<p><u>Self-isolation (general population)</u> <i>Patients with a severe course of COVID-19 (with a need for oxygen)</i></p> <ul style="list-style-type: none"> <li>▪ <u>At least 48 hours of freedom from symptoms</u> (defined as lasting improvement in acute COVID-19 symptoms according to a medical assessment)</li> </ul> <p><b>PLUS</b> <u>10 days after the onset of symptoms</u> at the earliest PCR test (negative result or high Ct value, which is associated with the non-cultivability of SARS-CoV-2)</p>	<p>Two possible approaches:</p> <ul style="list-style-type: none"> <li>▪ a synchronized national (or regional)</li> <li>▪ a local reactive.</li> </ul> <p>The choice of approach will be dependent on the epidemiological situation.</p>	Monitoring and documentation of the disease-related absences.	NR

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
	<p>2) <i>Patients with a mild course of COVID-19 (without need for oxygen)</i></p> <p><u>At least 48 hours of freedom from symptoms</u> (defined as lasting improvement in acute COVID-19 symptoms according to a medical assessment)</p> <p><b>PLUS</b></p> <p><u>At least 10 days</u> after the onset of symptoms</p> <p>3) <i>People with asymptomatic SARS-CoV-2 infection</i></p> <p><u>At the earliest 10 days</u> after the first detection of the pathogen</p> <p>4) <i>Special groups of people</i></p> <p><b>Immunosuppressed persons</b> A prolonged excretion of virus capable of replication can exist in patients with congenital or acquired immunodeficiencies or under immunosuppressive therapy. Here an individual assessment must be made, if necessary with the help of virus cultivation. Furthermore, severe disease courses can be associated with prolonged virus excretion.</p> <p><u>Quarantine (general population)</u> Those identified as someone suspected of being infected, though he/she is not sick must stay at home for <u>14 days</u>.</p>			
Iceland  Ministry of Education, Science and Culture	<p><u>Self-isolation</u> Primary school children and employees are expected to be <u>without a temperature for at least one day</u> before returning to school.</p> <p><u>Quarantine</u> If infection occurs in the home of a student or teacher, students and teachers in the class in question should quarantine for <u>14 days</u>.</p>	NR	As before the COVID-19 epidemic occurred, there must be valid reasons why children of primary school age do not attend school or do not study. If there are no valid reasons, the principal of the primary school shall notify Child Protection Services.	NR

*Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools*

Health Information and Quality Authority

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
Ministry of Health	<p><u>Isolation (general guidance):</u> Symptomatic case: At least 14 days have passed since a positive test result (diagnostic test) and at least 7 days of no symptoms. Asymptomatic cases: 14 days after testing positive for the virus</p>			
Norway  NIPH and Directorate for Education and Training.	<p>Some children may have residual symptoms after a respiratory infection such as runny nose (regardless of the colour of the nasal secretions) or occasional cough. These students can come to school if the general condition is good and the student is back in his usual form.</p> <p>Employees and secondary school students should stay at home until they are symptom-free, while primary school students should be kept at home until the general condition is good</p> <p><b>For cultural schools:</b> Students and staff can return to school when they have been asymptomatic for one day after undergoing a respiratory infection</p> <p><u>Self-isolation:</u> Students or staff who have confirmed covid-19:  <ul style="list-style-type: none"> <li>▪ Must be in isolation (The isolation lasts until <u>3 days after you are completely healthy</u> and at least <u>8 days</u> after you became ill). It is the health service that decides who should be in isolation and for how long on the advice given by the National Institute of Public Health.†</li> </ul> </p> <p><u>Quarantine</u> Students or employees who are close contacts / household member of a person with confirmed covid-19: The health service decides who will be in quarantine and for how long after advice given by the National Institute of Public Health (for <u>10 days</u> from the last exposure).</p>	Should there be a need for further measures, it is the task of the municipal health service to give the school an order to this effect.	NR	Traffic light system (green, yellow and red)

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
<p>Spain</p> <p>Ministry of Health, Consumer Affairs and Social Welfare</p> <p>Ministry of education and Vocational Training</p>	<p><b>Self-isolation (general guidance)</b> Any confirmed case must remain at home in isolation according to the COVID-19 Surveillance, Diagnosis and Control Strategy. All suspected cases will be kept in isolation pending a PCR result. In the case of a negative result, and there is no clinical suspicion, the case is considered ruled out and isolation ends.</p> <p><b>Primary care setting (home isolation)</b> Isolation will be maintained until <u>three days after the resolution of fever</u> and symptoms, with <u>a minimum of 10 days</u> from the onset symptoms. In asymptomatic cases, isolation will be maintained for <u>up to 10 days</u> from the date of taking the sample for diagnosis</p> <p><b>Hospital isolation</b> Isolation must be maintained at home with monitoring of their clinical situation at least <u>14 days</u> after discharge from hospital. <u>If 3 days have elapsed since the resolution of fever</u> and other symptoms, isolation may be terminated. If before these 14 days of home isolation from hospital discharge have passed, a PCR is performed and a negative result is obtained, the patient may be de-isolated.</p> <p><b>Quarantine (general guidance)</b> Surveillance and quarantine will be indicated for <u>14 days</u> after the last contact with a confirmed case.</p> <p>Active monitoring will be carried out throughout the maximum incubation period of the disease, which is 14 days, but it may be shortened to 10 days depending on whether or not a diagnostic test is performed. The particular strategy may differ in each CCAA (that is autonomous regions of Spain). Quarantine may be recommended for 10 or 14 days after the last risk exposure.</p>	<p>Temporary closure of classrooms and / or educational centres may be necessary in the event of an outbreak or increased community transmission.</p> <p>The Autonomous Community will assess the actions to follow in the event of an outbreak.</p>	<p>Monitoring of school absenteeism and the reasons for absence (health reasons or other justified reason)</p>	<p>NR</p>

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
<p>Sweden</p> <p>The Public Health Agency of Sweden</p>	<p><u>Self-isolation (general):</u> Confirmed cases of COVID-19 should stay at home for at least <u>7 days</u> after falling ill. A dry cough and loss of smell and taste may remain but if individuals feel well otherwise and seven days have passed since he/she fell ill, he/she can return to school.</p> <p>Individuals should be <u>free from fever for 2 days</u> and clearly feel well before returning to work or school.</p> <p>The same applies if a person has been ill, but not with COVID-19: he/she should stay at home for as long as he/she is ill.</p> <p><u>Quarantine</u> Anyone who has been, or is suspected to have been, exposed to a disease classified as dangerous to society (e.g. COVID-19) can be kept in quarantine as decided by the county medical officer (under the Swedish Communicable Diseases Act; 2004:168).</p> <p>If a member of household is ill with suspected or confirmed COVID-19, provided siblings or other family members have no symptoms they can carry on as normal and go to pre-school, school or work, but they should be on the lookout for symptoms and, if any arise, should stay at home</p> <p><u>Other</u> <i>Individuals who suffer from allergy (general):</i> Take the usual allergy medication. If symptoms do not get worse, the medication relieves the symptoms, and the judgement is that the symptoms are likely to be caused by allergy, individuals do not need to remain at home.</p> <p>If individuals experience new symptoms which they would not usually associate with allergy, or if they get a fever, they should stay home until they are free from symptoms, and then an additional 2 days.</p>	<p>The Swedish Parliament has passed a bill (2020:148) allowing temporary closure of schools and pre-schools due to extraordinary events, making it possible for the Government or the head of a school to close schools under particular circumstances.</p> <p>There is also a regulation (2020:115) regarding the provision of education for pupils during a school closure.</p>	<p>NR</p>	<p>NR</p>

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
Switzerland. FOPH	<p><u>Self-isolation:</u> The cantonal authority will inform you when your period of isolation ends. As a rule you can only leave your home 48 hours at the earliest after the symptoms of the disease have subsided. But whatever the case you may not leave home until at least <u>10 days</u> after your symptoms first appeared.</p> <p><u>Quarantine:</u> If your child has been in close contact with an infected person, the canton decides whether quarantine is necessary. This lasts <u>10 days</u> from the date of the last contact with this person. During quarantine, the child should not have any further contact with other persons outside of the family.</p>	<p>The cantonal authorities will assess each case individually before deciding whether or not the children in the class have to go into quarantine (if a student or teacher becomes infected with COVID-19)</p>	NR	NR
The Netherlands Ministry of Health, wellbeing and sports	<p><u>Self-isolation</u> Children who have a cough, shortness of breath or other symptoms that could indicate COVID-19 should stay home until the symptoms are gone. At 24 hours without complaints, children, parents/guardians and educational staff can return to school.</p> <p><i>SARS-CoV-2 negative patients</i> If the test is negative, everyone in the household (including the person with complaints) is allowed to do what they would normally do (for example to work or school). The child can go back to the childcare or school, even if not all complaints are yet disappeared.</p> <p><i>SARS-CoV-2 positive patients</i> The SARS-CoV-2 positive child must stay at home until they are at least 48 hours fever-free, 24 hours symptom free AND at least 7 days after the onset of symptoms</p> <p><u>Quarantine</u> Household contacts of SARS-CoV-2 positive patients Other persons in the household stay at home until 2 weeks after the last contact with the index.</p>	<p>Exactly what measures should be taken at the school and whether more people should be tested depends on the circumstances and is determined by the GGD. The GGD will contact the school about this.</p>	<p>In accordance with Article 26 of the Wpg, children's centers and primary schools report clusters of 3 or more children in one group with suspicion of COVID-19 to the GGD .</p> <p>Record if the reason for absence from school is related to SARS-CoV-2 in the student tracking system.</p> <p>The school does not have to report absenteeism for students who, due to urgent home quarantine advice, cannot go to school immediately after the summer holidays. The school also does not have to report absenteeism for</p>	NR

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
	<p>Doctors do not provide a medical certificate on the basis of which the child can still go to childcare / school.</p> <p><i>Contact tracing guidance:</i> Frequent and intensive contacts of positive cases must follow the policy of category 2 contacts (other close contacts): stay at home and active monitoring. It must be inquired with which other persons or groups of children the child has had contact without keeping a distance of 1.5 meters, such as primary school teachers, classmates or sports buddies. These persons follow the measures of category 3 contacts (other non-close contact): they do not have to stay at home, are not actively monitored, and do not have to be individually registered by the GGD.</p> <p><u>General advice (classroom contacts)</u> The GGD ensures that contacts are informed about the determination of COVID-19 in a person in their environment. The contacts are advised to:</p> <ul style="list-style-type: none"> <li>■ observe good cough and hand hygiene;</li> <li>■ take general measures to prevent COVID-19 (social distancing);</li> <li>■ during the 14 days after the last contact to be alert for complaints consistent with COVID-19 (cough and / or nose cold and / or fever), and             <ul style="list-style-type: none"> <li>○ if a fever is suspected, measure the temperature (rectally or through the ear) (fever is temperature <math>\geq 38.0^{\circ}</math> Celsius);</li> <li>○ immediately call the GGD in case of complaints for assessment and use of diagnostics;</li> <li>○ to stay at home when complaints arise.</li> </ul> </li> </ul>		<p>children who travel (with or without their parents) to a country where they are urgently advised to go into quarantine when they return home.</p>	
<b>NORTH AMERICA</b>				

*Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools*

Health Information and Quality Authority

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
Canada.  Governm ent of Canada	<p>Require that children/youth, staff and volunteers stay at home if ill with symptoms of COVID-19 until criteria to discontinue isolation have been met, in consultation with the local PHA or healthcare provider.</p> <p><b>Self-isolation:</b> If you've been tested for coronavirus and receive a positive test result, you must isolate at home, whether you have symptoms or not.</p> <p>If you have symptoms (symptomatic), you must</p> <ul style="list-style-type: none"> <li>▪ isolate at home (as soon as your symptoms start), and remain isolated for <u>14 days</u> or as directed by your public health authority</li> </ul> <p>If you do not have symptoms (asymptomatic) you must:</p> <ul style="list-style-type: none"> <li>▪ isolate at home as soon as you receive the confirmed laboratory test, and remain isolated for <u>14 days</u> or as directed by your public health authority</li> </ul> <p>if you did not have symptoms when you got tested, but then develop symptoms during your 14-day isolation period, you must restart your isolation time</p>	<p>School administrators should develop plans, in consultation with their PHA, to help guide their actions in the event of an outbreak of COVID-19 in their schools.</p>	<p>Notify the PHA promptly of unusual situations, such as when absenteeism of children/youth or staff is greater than would be expected, or when illness is observed or reported</p>	<p>Risk Assessment Tool (High, Medium and Low)</p>
United States  CDC	<p>At least 24 hours after they no longer have a fever (temperature of 100.4 Fahrenheit (38° Celsius) or higher) or signs of a fever (chills, feeling very warm, flushed appearance, or sweating) without the use of fever-reducing medicine.</p> <p>Schools should not require testing results as a part of return to school policies.</p> <p>Students who have received a negative test result should be allowed to return to school once their symptoms have otherwise improved in accordance with existing school illness management policies.</p> <p>If a student, teacher, or staff member tests positive for SARS-CoV-2, those in the same cohort/group should also be tested</p>	<p>Any decision about school dismissal or cancellation of school events should be made in coordination with local health officials. Schools are not expected to make decisions about dismissals on their own. The levels of community transmission and the extent of close contacts of the positive case should all be considered before closing. If there is substantial, uncontrolled community transmission, schools should work closely with local health officials to make decisions on whether to maintain school operations. If community transmission levels cannot be decreased, school closure is an important consideration.</p>	<p>If your school notices a substantial increase in the number of students or staff missing school due to illness, report this to your local health officials.</p> <p>School administrators should notify local health officials, staff, and families immediately of any case of COVID-19</p>	<p>Based on level of community transmission:</p> <ol style="list-style-type: none"> <li>1. No to minimal</li> <li>2. Minimal to moderate</li> <li>3. Substantial, controlled</li> <li>4. Substantial, uncontrolled.</li> </ol> <p>If minimal community transmission, universal</p>

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
	<p>and remain at home until receiving a negative test result or quarantine.</p> <p>Students must adhere to standard CDC guidance for self-isolation or quarantine, as appropriate before returning to school.†</p> <p><u>Self-isolation:</u> <u>Discontinuation of isolation in COVID-19 patients (non-healthcare settings)</u> At least <u>10 days</u> have passed since symptom onset and At least 24 hours have passed since resolution of fever without the use of fever-reducing medications and Other symptoms have improved (other than loss of smell or taste).</p> <p>For asymptomatic cases: 10 days</p> <p>For patients with severe illness, duration of isolation for up to 20 days after symptom onset may be warranted. Consider consultation with infection control experts.</p> <p><u>Quarantine:</u> CDC recommends <u>14 days</u> of quarantine after exposure based on the time it takes to develop illness if infected</p>	<p>If the transmission of the virus within a school is higher than that of the community, or if the school is the source of an outbreak, administrators should work collaboratively with local health officials to determine if temporary school closure is necessary</p> <p>Two possible approaches are provided by the CDC, however the final decision would likely depend on transmission levels at the time and in conjunction with local health officials.</p> <p>1) Administrators may need to temporarily dismiss school for 2-5 days, if a student or staff member attended school before being confirmed as having COVID-19.</p> <p>2) A single case of COVID-19 in a school would not likely warrant closing the entire school, especially if levels of community transmission are not high</p>		<p>symptom screening is more likely to identify non-COVID cases</p>
<b>AUSTRALASIA</b>				
Australia.  Department of Health, Department of Education	<p><u>Quarantine:</u> Students and staff who have been in contact with a confirmed case of COVID-19 must self-isolate at home for 14 days from the date of contact.</p> <p>You should not be required to present a medical certificate or written clearance from a GP for your child to return to school.</p>	NR	Where there is a suspected or confirmed case of COVID-19 in a school environment, schools should contact the National Coronavirus Helpline which operates 24 hours a day, 7	NR

*Rapid review of public health guidance on identification and management of symptoms in children and young people attending schools*

Health Information and Quality Authority

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
n, Skills and Employment.	<p>This applies for return to school after your child has been home with an illness, including COVID-19.</p> <p><u>Self-isolation:</u> A person with COVID-19 or suspected to have it must enter mandatory isolation. Your Public Health Unit will advise you when you are clear to end isolation and return to normal activities</p>		days a week for further advice.	
New Zealand  Ministry of Education.	<p><u>Isolation:</u> <u>Duration determined by local health authorities.</u> Stringent self-isolation of those who display relevant symptoms of COVID-19, test positive for COVID-19 (duration of self-isolation at the advice of a public health clinician), have been in close contact with someone who tests positive for COVID-19, or have been overseas in the last 14 days.</p> <p><u>Quarantine:</u> A close contact of someone confirmed with COVID-19 will be asked by health authorities to self-isolate for 14 days from when they last had contact with the confirmed case. Anyone who is a contact of a 'close contact' is not required to self-isolate. If you show no symptoms, your household contacts do not need to self-isolate.</p>	<p>Local health authorities through the Medical Officer of Health will make the decision about whether a school or service needs to close for a period of time.</p> <p>Upon advice from the local medical officer of health, any educational facilities connected to a confirmed or probable case of COVID-19 must close on an individual or group basis for 72 hours to allow contact tracing, and then potentially for a further 14 days.</p>	<p>Weekly attendance collection provides timely information to Government for its COVID-19 response, and identifies schools that require additional support from the Ministry.</p> <p>If you have a probable case or confirmed case of COVID-19 in your school, cases will be notified to you by the Medical Officer of Health or your local public health authority.</p> <p>Contact the local medical officer of health if there are any concerns about someone believed on reasonable grounds to be ill, refusing to stay away.</p>	There are 4 alert levels
<b>ASIA</b>				
Singapore.  Ministry of	<p><u>Quarantine:</u> MOE will closely monitor the students and staff who were in contact with the confirmed case(s). As a precautionary measure, they will be issued a <u>14-day</u> Leave of Absence, to minimise the risks of further transmission in schools.</p>	If there is a new confirmed case in the school, face-to-face lessons will be suspended for 3 days at the first instance while we work with MOH to establish whether there is a link between the new	NR	NR

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
Health, Ministry of Education	<p>Students and staff with adult household members who are feeling unwell with flu-like symptoms should inform their schools as soon as possible. They will be placed on approved absence and be required to stay at home for the duration of the household member's medical leave</p> <p>Staff and students who have ended the 14-day isolation period without developing any symptoms do not need any certification from a doctor before resuming their normal activities. Schools also do not require these individuals to produce a doctor's note to allow them to return to the schools at the end of the 14-day period.</p> <p>For students aged 12 and below (who are feeling unwell, especially if they display respiratory symptoms such as runny nose, cough or sore throat), they will be assessed by the doctor on whether a test is required. They may be issued a 5-day medical certificate in the first instance, and be required to stay home. If they are well at the end of the medical certificate period, they can return to school. If they are still displaying respiratory symptoms at the end of their MC period, they should return to the same doctor for follow-up assessment and they may be tested for SARS-CoV-2.</p> <p>Students will be placed on LOA:</p> <ul style="list-style-type: none"> <li>▪ when they are in close contact with confirmed cases but are not placed on Home Quarantine Order (HQO); or</li> <li>▪ if members in their households are serving the HQO at their place of residence.</li> </ul> <p>With effect from 31 July 2020, LOAs would no longer be issued to students just because members of their household are serving SHN at their place of residence. As MOH has explained, individuals returning from select countries would already be</p>	<p>and the previous confirmed case. If there is a link between the cases, MOE will immediately implement Full Home-based Learning (HBL) for all students in that school, while we conduct an additional round of thorough cleaning and disinfection of school premises. Students will continue on Full HBL for about two weeks, or one cycle of transmission, and any staff or students who show any symptoms will be required to go to their nearest doctor for treatment and, if necessary, swab tests.</p>		

Country Public health body	Return to school protocol	School/classroom closure protocol	External reporting of COVID-19-associated symptoms or absences	Frameworks
	<p>required to serve their SHN at dedicated facilities, instead of, for example, their own homes.</p> <p>Students can be placed on AA when they are staying in the same household as adults (18 years and above) with flu-like symptoms, for the duration of the unwell individual's medical leave or until the adult is informed of a negative COVID-19 swab result.</p> <p>Staff and students who have ended the 14-day LOA/SHN period without developing any symptoms do not need any certification from a doctor before resuming their normal activities.</p> <p><u>Isolation:</u> Patients who are clinically fit for discharge but are still COVID-19 positive will be isolated and safely cared for in a facility until they are tested negative for COVID-19.</p>			

**Key:** CCAA - Autonomous communities of Spain; CDC - Centers for Disease Control and Prevention; CLB – centre for pupil guidance; COVID-19 – Coronavirus disease 2019; ECDC – European Centre for disease prevention and control; GGD – Municipal health service; HPT – health protection team; NI – Northern Ireland; FOPH – Federal Office of Public Health; MC – Medical certificate; MOE -Ministry of Education; MOH – Ministry of Health; NIPH – Norwegian Institute of Public Health ; NR – not reported; PHA – Public Health Agency; PHE – Public Health England SARS-CoV-2 – Severe acute respiratory syndrome coronavirus 2; WHO – World Health Organisation.

\* Countries can choose to continue to use a laboratory testing algorithm as part of the release criteria in (a subset of) infected individuals if their risk assessment gives reason to do so.

† Without the use of any antipyretics.

‡ Some patients may experience symptoms (such as post viral cough) beyond the period of infectivity. Further research is needed. For more information about clinical care of COVID-19 patients, see our Clinical Management Guidance.

§ An asymptomatic case is an individual who has a laboratory confirmed positive test and who has no symptoms during the complete course of infection.

### Appendix 3: CDC Daily Home Screening for Students

*Parents: Please complete this short check each morning and report your child’s information in the morning before your child leaves for school.*

#### SECTION 1: Symptoms

If your child has any of the following symptoms, that indicates a possible illness that may decrease the student’s ability to learn and also put them at risk for spreading illness to others. Please check your child for these symptoms:

	Temperature 100.4 degrees Fahrenheit or higher when taken by mouth
	Sore throat
	New uncontrolled cough that causes difficulty breathing (for students with chronic allergic/ asthmatic cough, a change in their cough from baseline)
	Diarrhea, vomiting, or abdominal pain
	New onset of severe headache, especially with a fever

#### SECTION 2: Close Contact/Potential Exposure

	Had close contact (within 6 feet of an infected person for at least 15 minutes) with a person with confirmed COVID-19
	Traveled to or lived in an area where the local, Tribal, territorial, or state health department is reporting large numbers of COVID-19 cases as described in the <a href="#">Community Mitigation Framework</a>
	Live in areas of high community transmission (as described in the <a href="#">Community Mitigation Framework</a> ) while the school remains open



If the student/parent/caregiver answers YES to any question in Section 1 but NO to any questions in Section 2, the student would be excused from school in accordance with existing school illness management policy (e.g., until symptom-free for 24 hours without fever reducing medications).

If the student or parent or caregiver answers YES to any question in Section 1 and YES to any question in Section 2, the student should be referred for evaluation by their healthcare provider and possible testing. CDC strongly encourages local health departments to work with local school systems to develop a strategy to refer symptomatic individuals to an appropriate healthcare provider or testing site. State, Tribal, territorial, and local health officials and/or healthcare providers will determine when viral testing for SARS-CoV-2 is appropriate. Schools should not require testing results as a part of return to school policies. Students who have received a negative test result should be allowed to return to school once their symptoms have otherwise improved in accordance with existing school illness management policies.

Students diagnosed with COVID-19 or who answer YES to any question in Section 1 and YES to any question in Section 2 without negative test results should stay home, isolate themselves from others, monitor their health, and follow directions from their state or local health department. Students and their families should be advised that the local health department may contact the family for contact tracing. If contacted, families should notify the contract tracer that the student attended school.

Students diagnosed with COVID-19 or who answer YES to any component of Section 1 and YES to any component of Section 2 without negative test results should be permitted to return to school should be in line with current CDC recommendations in "When Can I Be Around Others". A negative test or doctor's note should **not** be required for return. Questions regarding return to school should be jointly decided in consultation with parents or caregivers, school personnel, and the student's healthcare provider.

## References

1. UNESCO. COVID-19 Impact on Education 2020 [updated 2 Aug 2020; cited 2020 7 Aug]. Available from: <https://en.unesco.org/covid19/educationresponse>.
2. Ludvigsson JF. Systematic review of COVID-19 in children shows milder cases and a better prognosis than adults. *Acta Paediatrica*. 2020;109(6):1088-95.
3. Zimmermann P, Curtis N. Coronavirus Infections in Children Including COVID-19: An Overview of the Epidemiology, Clinical Features, Diagnosis, Treatment and Prevention Options in Children. *The Pediatric infectious disease journal*. 2020;39(5):355-68.
4. HIQA. Evidence summary of potential for children to contribute to transmission of SARS-CoV-2 2020 [updated 23 Jun 2020; cited 2020 13 Aug]. Available from: <https://www.hiqa.ie/reports-and-publications/health-technology-assessment/evidence-summary-spread-covid-19-children>.
5. CDC. The Importance of Reopening America's Schools this Fall 2020 [updated 23 July; cited 2020 7 Aug]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/reopening-schools.html>.
6. Van Lancker W, Parolin Z. COVID-19, school closures, and child poverty: a social crisis in the making. *The Lancet Public Health*. 2020;5(5):e243-e4.
7. Assaker R, Colas A-E, Julien-Marsollier F, Bruneau B, Marsac L, Greff B, et al. Presenting symptoms of COVID-19 in children: a meta-analysis of published studies. *British Journal of Anaesthesia*.
8. Struyf T, Deeks JJ, Dinnes J, Takwoingi Y, Davenport C, Leeflang MMG, et al. Signs and symptoms to determine if a patient presenting in primary care or hospital outpatient settings has COVID-19 disease. *Cochrane Database of Systematic Reviews*. 2020(7).
9. Walsh KA, Jordan K, Clyne B, Rohde D, Drummond L, Byrne P, et al. SARS-CoV-2 detection, viral load and infectivity over the course of an infection. *Journal of Infection*. 2020;81(3):357-71.
10. Department of Education and Skills. Reopening Our Schools: The Roadmap for the Full Return to School 2020 [updated 27 July 2020; cited 2020 7 August]. Available from: <https://www.gov.ie/en/publication/b264b-roadmap-for-the-full-return-to-school/>.
11. CDC. Quarantine and Isolation 2017 [updated 29 September 2017; cited 2020 10 Aug]. Available from: <https://www.cdc.gov/quarantine/index.html>.
12. WHO. Criteria for releasing COVID-19 patients from isolation 2020 [updated 17 June 2020; cited 2020 17 Aug ]. Available from: <https://www.who.int/publications/i/item/criteria-for-releasing-covid-19-patients-from-isolation>.
13. WHO. Q&A on coronaviruses (COVID-19) 2020 [updated 17 April 2020; cited 2020 17 Aug]. Available from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/q-a-coronaviruses>.
14. WHO. Key messages and actions for COVID-19 Prevention and Control in Schools 2020 [updated March 2020; cited 2020 17 Aug]. Available from:

- [https://www.who.int/docs/default-source/coronaviruse/key-messages-and-actions-for-covid-19-prevention-and-control-in-schools-march-2020.pdf?sfvrsn=baf81d52\\_4](https://www.who.int/docs/default-source/coronaviruse/key-messages-and-actions-for-covid-19-prevention-and-control-in-schools-march-2020.pdf?sfvrsn=baf81d52_4).
15. WHO. Considerations for school-related public health measures in the context of COVID-19 2020 [updated 10 May 2020; cited 2020 17 Aug]. Available from: <https://www.who.int/publications/i/item/considerations-for-school-related-public-health-measures-in-the-context-of-covid-19%20%E2%BB%BF>.
  16. ECDC. COVID-19 in children and the role of school settings in COVID-19 transmission 2020 [updated 6 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.ecdc.europa.eu/en/publications-data/children-and-school-settings-covid-19-transmission>.
  17. ECDC. Objectives for COVID-19 testing in school settings 2020 [updated 10 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-objectives-school-testing.pdf>.
  18. ECDC. Contact tracing: public health management of persons, including healthcare workers, having had contact with COVID-19 cases in the European Union – second update 2020 [updated 9 April 2020; cited 2020 17 Aug]. Available from: <https://www.ecdc.europa.eu/en/covid-19-contact-tracing-public-health-management>.
  19. ECDC. Guidance for discharge and ending isolation in the context of widespread community transmission of COVID-19 – first update 2020 [updated 8 April 2020; cited 2020 17 Aug]. Available from: <https://www.ecdc.europa.eu/en/publications-data/covid-19-guidance-discharge-and-ending-isolation>.
  20. Department for Education England. Coronavirus (COVID-19): implementing protective measures in education and childcare settings 2020 [updated 1 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.gov.uk/government/publications/coronavirus-covid-19-implementing-protective-measures-in-education-and-childcare-settings/coronavirus-covid-19-implementing-protective-measures-in-education-and-childcare-settings>.
  21. Department for Education England. Guidance for full opening: schools 2020 [updated 7 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.gov.uk/government/publications/actions-for-schools-during-the-coronavirus-outbreak/guidance-for-full-opening-schools#section-5-contingency-planning-for-outbreaks>.
  22. Department for Education England. Supporting children and young people with SEND as schools and colleges prepare for wider opening 2020 [updated 24 Jul 2020; cited 2020 17 Aug]. Available from: <https://www.gov.uk/government/publications/coronavirus-covid-19-send-risk-assessment-guidance/coronavirus-covid-19-send-risk-assessment-guidance>.
  23. Department for Education England. What parents and carers need to know about early years providers, schools and colleges in the autumn term 2020 [updated 31 Jul 2020; cited 2020 17 Aug]. Available from: <https://www.gov.uk/government/publications/what-parents-and-carers-need>

- [to-know-about-early-years-providers-schools-and-colleges-during-the-coronavirus-covid-19-outbreak/what-parents-and-carers-need-to-know-about-early-years-providers-schools-and-colleges-in-the-autumn-term.](#)
24. Department for Education England. Safe working in education, childcare and children's social care settings, including the use of personal protective equipment (PPE) 2020 [updated 21 July 2020; cited 2020 17 Aug]. Available from: <https://www.gov.uk/government/publications/safe-working-in-education-childcare-and-childrens-social-care/safe-working-in-education-childcare-and-childrens-social-care-settings-including-the-use-of-personal-protective-equipment-ppe>.
  25. Scottish Government. Coronavirus (COVID-19): guidance on preparing for the start of the new school term in August 2020 2020 [updated 12 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.gov.scot/publications/coronavirus-covid-19-guidance-preparing-start-new-school-term-august-2020/>.
  26. Scottish Government. Coronavirus (COVID-19): strategic framework for reopening schools, early learning and childcare provision 2020 [updated 21 May 2020; cited 2020 17 Aug]. Available from: <https://www.gov.scot/publications/excellent-equity-during-covid-19-pandemic-strategic-framework-reopening-schools-early-learning-childcare-provision-scotland/>.
  27. Northern Ireland Department of Education. Northern Ireland Re-opening School Guidance - New School Day 2020 [updated 13 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.education-ni.gov.uk/publications/northern-ireland-re-opening-school-guidance-new-school-day-revised>.
  28. Northern Ireland Department of Education. Guidance to support safe working in educational settings - June 2020 2020 [updated 23 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.education-ni.gov.uk/publications/guidance-support-safe-working-educational-settings-june-2020>.
  29. Public Health Agency of Northern Ireland. COVID-19: Information for the public 2020 [updated not reported; cited 2020 17 Aug]. Available from: <https://www.publichealth.hscni.net/covid-19-coronavirus/covid-19-information-public>.
  30. Welsh Government. Back to school plans from September: coronavirus 2020 [updated 17 Jul 2020; cited 2020 17 Aug]. Available from: <https://gov.wales/schools-increasing-operations-29-june-coronavirus#section-43661>.
  31. Welsh Government. Operational guidance for schools and settings from the autumn term: Keep Education Safe (COVID-19) 2020 [updated 11 Aug 2020; cited 2020 17 Aug]. Available from: <https://gov.wales/operational-guidance-schools-and-settings-autumn-term-covid-19>.
  32. Welsh Government. Recording attendance in schools and settings from 29 June: coronavirus 2020 [updated 15 Jun 2020; cited 2020 17 Aug]. Available from: <https://gov.wales/recording-attendance-schools-and-settings-29-june-coronavirus>.
  33. Welsh Government. Self-isolation: stay at home guidance for households with possible coronavirus 2020 [updated 4 Aug 2020; cited 2020 17 Aug]. Available from: <https://gov.wales/self-isolation-stay-home-guidance-households->

- [possible-coronavirus](#).
34. Welsh Government. Guidance on testing and contact tracing in education settings 2020 [updated 30 July 2020; cited 2020 17 Aug]. Available from: <https://gov.wales/guidance-testing-and-contact-tracing-education-settings.html>.
  35. BMBWF Austria. [Recommendations and information for schools in dealing with suspected cases at the school location] 2020 [updated not reported; cited 2020 17 Aug]. Available from: [https://www.bmbwf.gv.at/Themen/schule/beratung/corona/corona\\_empf.html](https://www.bmbwf.gv.at/Themen/schule/beratung/corona/corona_empf.html).
  36. Sciensano Belgium. [COVID-19 - Procedures] 2020 [updated not reported; cited 2020 17 Aug]. Available from: <https://covid-19.sciensano.be/nl/covid-19-procedures>.
  37. Flemish Ministry of Education and Training. [Start of school year in pandemic level yellow] 2020 [updated 14 Aug 2020; cited 2020 17 Aug]. Available from: <https://onderwijs.vlaanderen.be/nl/start-schooljaar-in-pandemieniveau-geel>.
  38. Sciensano Belgium. [MEASURES FOR CONTACTS OF A PERSON WITH COVID-19] 2020 [updated 14 Aug 2020; cited 2020 17 Aug]. Available from: [https://covid-19.sciensano.be/sites/default/files/Covid19/COVID-19\\_FAQ%20contact%20tracing\\_NL.pdf](https://covid-19.sciensano.be/sites/default/files/Covid19/COVID-19_FAQ%20contact%20tracing_NL.pdf).
  39. Sciensano Belgium. [COVID-19 MEASURES FOR CHILDREN IN COLLECTIVES] 2020 [updated 14 Aug 2020; cited 2020 17 Aug]. Available from: [https://covid-19.sciensano.be/sites/default/files/Covid19/COVID-19\\_procedure\\_children\\_NL.pdf](https://covid-19.sciensano.be/sites/default/files/Covid19/COVID-19_procedure_children_NL.pdf).
  40. Flemish Ministry of Education and Training. [Coronavirus] 2020 [updated 7 Jul 2020; cited 2020 17 Aug]. Available from: <https://onderwijs.vlaanderen.be/nl/nl/coronavirus>.
  41. Danish Health Authority. [COVID-19: Prevention of the spread of infection] 2020 [updated 7 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.sst.dk/da/Udgivelser/2020/COVID-19-Forebyggelse-af-smittespredning>.
  42. Danish Health Authority. [Materials for the reopening of schools and leisure schemes] 2020 [updated 4 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.sst.dk/da/Udgivelser/2020/Genaabning-af-skoler>.
  43. Danish Health Authority. [For you who are in close contact with someone infected with new coronavirus] 2020 [updated 9 Jul 2020; cited 2020 17 Aug]. Available from: <https://www.sst.dk/da/Udgivelser/2020/Til-dig-der-er-naer-kontakt-til-person-med-ny-coronavirus>.
  44. Danish Health Authority. [For you who have tested positive for new coronavirus] 2020 [updated 28 Jul 2020; cited 2020 17 Aug]. Available from: <https://www.sst.dk/-/media/Udgivelser/2020/Corona/Overs%C3%A6ttelser/testet-positiv-engelsk.ashx?la=da&hash=9F7371BEF96630436FE2EC71C145BF972C38B843>.
  45. Danish Ministry of Children and Education. [The youth education for young people with special needs (STU)] 2020 [updated 3 July 2020; cited 2020 17 Aug]. Available from: <https://www.uvm.dk/aktuelt/i-fokus/information-til-uddannelsesinstitutioner-om-coronavirus-covid-19/spoergsmaal-og-svar/stu>.

46. Danish Ministry of Children and Education. [New guidelines for day care, schools and institutions are in place] 2020 [updated 19 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.uvm.dk/aktuelt/nyheder/uvm/2020/jun/200619-nye-retningslinjer-for-dagtilbud-skoler-og-institutioner-er-paa-plads>.
47. Danish Health Authority. [Information on precautions in case of COVID-19 in schools, day care and other services for children and young people] 2020 [updated 29 May 2020; cited 2020 17 Aug]. Available from: <https://www.sst.dk/da/Udgivelser/2020/Info-om-forholdsregler-ved-tilfaelde-af-COVID-19-i-skoler-dagtilbud-og-andre-tilbud-til-boern-og-unge>.
48. French Ministry of National Education Youth and Sport. [Practical arrangements for the start of the 2020 school year] 2020 [updated July 2020; cited 2020 17 Aug]. Available from: <https://www.education.gouv.fr/modalites-pratiques-de-la-rentree-2020-305259>.
49. French Ministry of National Education Youth and Sport. [School year 2020 - Pedagogical continuity plan] 2020 [updated 4 Aug 2020; cited 2020 17 Aug]. Available from: <https://eduscol.education.fr/cid152893/rentree-scolaire-2020-plan-de-continuite-pedagogique.html>.
50. French Ministry of National Education Youth and Sport. [Coronavirus - COVID-19: information and recommendations for schools, staff and families] 2020 [updated Jul 2020; cited 2020 17 Aug]. Available from: <https://www.education.gouv.fr/coronavirus-covid-19-informations-et-recommandations-pour-les-etablissements-scolaires-les-274253>.
51. German Federal Ministry of Health. [Recognizing symptoms and taking correct action] 2020 [updated not reported; cited 2020 17 Aug]. Available from: <https://www.zusammengegen corona.de/en/inform/recognize-symptoms/#faqitem=f639fc37-83d3-569a-a773-289a27130d40>.
52. Robert Koch Institut. [Reopening Educational Institutions - Considerations, Basis for Decision-Making, and Requirements] 2020 [updated 7 May 2020; cited 2020 17 Aug]. Available from: [https://www.rki.de/DE/Content/Infekt/EpidBull/Archiv/2020/19/Art\\_03.html?nn=13490888](https://www.rki.de/DE/Content/Infekt/EpidBull/Archiv/2020/19/Art_03.html?nn=13490888).
53. Robert Koch Institut. [COVID-19 : Release criteria from isolation] 2020 [updated 17 Jul 2020; cited 2020 17 Aug]. Available from: [https://www.rki.de/DE/Content/InfAZ/N/Neuartiges\\_Coronavirus/Entlassmanagement.html?nn=13490888](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Entlassmanagement.html?nn=13490888).
54. Robert Koch Institut. [Home quarantine (ordered by the health department): Flyer for contact persons] 2020 [updated 4 Jun 2020; cited 2020 17 Aug]. Available from: [https://www.rki.de/DE/Content/InfAZ/N/Neuartiges\\_Coronavirus/Quarantaene/Inhalt.html?nn=13490888](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Quarantaene/Inhalt.html?nn=13490888).
55. Government of Iceland. Q&A about school restrictions due to COVID-19 2020 [updated 6 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.government.is/topics/education/q-a-about-school-restrictions-due-to-covid-19/#compulsary-school>.
56. Government of Iceland. [HOW DOES ISOLATION WORK?] 2020 [updated not reported; cited 2020 17 Aug]. Available from:

- <https://www.covid.is/categories/how-does-isolation-work>.
57. Norwegian Directorate for Education and Training. [Guide on infection control for school levels 1-7. steps during the covid-19 eruption 2020] 2020 [updated 26 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.udir.no/kvalitet-og-kompetanse/sikkerhet-og-beredskap/informasjon-om-koronaviruset/smittevernveileder/skoletrinn-1-7/>.
  58. Norwegian Directorate for Education and Training. [Guide on infection control for upper secondary school and upper secondary school during the covid-19 outbreak in 2020] 2020 [updated 26 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.udir.no/kvalitet-og-kompetanse/sikkerhet-og-beredskap/informasjon-om-koronaviruset/smittevernveileder/ungdomsskole-vgo/>.
  59. Norwegian Directorate for Education and Training. [Infection control supervisor cultural school] 2020 [updated 6 Aug 2020; cited 2020 17 Aug]. Available from: <https://kulturskoleradet.no/smittevernveileder-kulturskole>.
  60. Norwegian Institute of Public Health. [Information for schools, after school programmes and childcare centres] 2020 [updated 4 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.fhi.no/en/op/novel-coronavirus-facts-advice/advice-and-information-to-other-sectors-and-occupational-groups/info-to-schools-childcare/?term=&h=1>.
  61. Norwegian Institute of Public Health. [Distance, quarantine and isolation] 2020 [updated 14 Aug 2020; cited 2020 17 Aug ]. Available from: <https://www.fhi.no/nettpub/coronavirus/fakta/avstand-karantene-og-isolering/>.
  62. Norwegian Institute of Public Health. [Definitions of case and close contact] 2020 [updated 14 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.fhi.no/nettpub/coronavirus/testing-og-oppfolging-av-smittede/definisjoner-av-mistenkte-og-bekreftede-tilfeller-med-koronavirus-coronavir/>.
  63. Spanish Ministry of Health. [EARLY DETECTION, SURVEILLANCE AND CONTROL STRATEGY OF COVID-19] 2020 [updated 11 Aug 2020; cited 2020 17 Aug]. Available from: [https://www.mscbs.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov-China/documentos/COVID19\\_Estrategia\\_vigilancia\\_y\\_control\\_e\\_indicadores.pdf](https://www.mscbs.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov-China/documentos/COVID19_Estrategia_vigilancia_y_control_e_indicadores.pdf).
  64. Spanish Ministry of Health. [How to act in case of symptoms of COVID-19] 2020 [updated 22 Jun 2020; cited 2020 17 Aug]. Available from: [https://www.mscbs.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov-China/documentos/20200325\\_Decalogo\\_como\\_actuar\\_COVID19.pdf](https://www.mscbs.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov-China/documentos/20200325_Decalogo_como_actuar_COVID19.pdf).
  65. Spanish Ministry of Health Consumer Affairs and Social Welfare. [Information for citizens] 2020 [updated 22 May 2020; cited 2020 17 Aug]. Available from: <https://www.mscbs.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov-China/ciudadania.htm>.
  66. Public Health Agency of Sweden. FAQ about COVID-19 2020 [updated 17 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.folkhalsomyndigheten.se/the-public-health-agency-of->

- [sweden/communicable-disease-control/covid-19/](https://www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/novel-cov/empfehlungen-fuer-die-arbeitswelt.html).
67. Federal Office of Public Health Switzerland. New coronavirus: Precautionary measures 2020 [updated 31 Jul 2020; cited 2020 17 Aug]. Available from: <https://www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/novel-cov/empfehlungen-fuer-die-arbeitswelt.html>.
  68. Federal Office of Public Health Switzerland. New coronavirus: Frequently Asked Questions (FAQs) - A student or teacher has become infected with coronavirus. 2020 [updated 3 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/novel-cov/faq-kontakte-downloads/haeufig-gestellte-fragen.html?faq-url=/en/children-and-school-isolation-and-quarantine/student-or-teacher-has-become-infected-coronavirus-does>.
  69. Federal Office of Public Health Switzerland. New coronavirus: What to do in the event of symptoms and possible infection 2020 [updated 1 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/novel-cov/isolation-und-quarantaene.html>.
  70. Federal Office of Public Health Switzerland. New coronavirus: Frequently Asked Questions (FAQs) - My child has been in close contact with someone 2020 [updated 3 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/novel-cov/faq-kontakte-downloads/haeufig-gestellte-fragen.html?faq-url=/en/infection-and-risks-children-and-school-isolation-and-quarantine/my-child-has-been-close-contact>.
  71. Dutch Ministry of Education CaS. [The coronavirus and primary and special education] 2020 [updated 22 Jul 2020; cited 2020 17 Aug]. Available from: <https://www.rijksoverheid.nl/onderwerpen/coronavirus-covid-19/ouders-scholieren-en-studenten-kinderopvang-en-onderwijs/basisonderwijs-en-speciaal-onderwijs>.
  72. Dutch National Institute for Health and Environment. [Guide to COVID-19 contact and outbreak investigation in children (0 to 18 years)] 2020 [updated 5 Aug 2020; cited 2020 17 Aug]. Available from: <https://lci.rivm.nl/Handreiking-contact-en-uitbraakonderzoek-kinderen>.
  73. Dutch National Institute for Health and Environment. [Protocol source and contact investigation COVID-19] 2020 [updated 5 Aug 2020; cited 2020 17 Aug]. Available from: <https://lci.rivm.nl/COVID-19-bco>.
  74. Dutch National Institute for Health and Environment. Children and COVID-19 2020 [updated 20 Jul 2020; cited 2020 17 Aug]. Available from: <https://www.rivm.nl/en/novel-coronavirus-covid-19/children-and-covid-19>.
  75. Government of Canada. Risk mitigation tool for child and youth settings operating during the COVID-19 pandemic 2020 [updated 20 Jul 2020; cited 2020 17 Aug]. Available from: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/guidance->

- [documents/covid-19-risk-mitigation-tool-child-youth-settings-operating-during-pandemic.html](#).
76. Government of Canada. Community-based measures to mitigate the spread of coronavirus disease (COVID-19) in Canada 2020 [updated 30 May 2020; cited 2020 17 Aug]. Available from: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/public-health-measures-mitigate-covid-19.html# Child and youth>.
  77. Government of Canada. Coronavirus disease (COVID-19): Symptoms and treatment 2020 [updated 14 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/symptoms.html#s>.
  78. Government of Canada. COVID-19 guidance for schools Kindergarten to Grade 12 2020 [updated 12 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/guidance-schools-childcare-programs.html>.
  79. CDC. Screening K-12 Students for Symptoms of COVID-19: Limitations and Considerations 2020 [updated 23 July 2020; cited 2020 17 August]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/symptom-screening.html>.
  80. CDC. Preparing K-12 School Administrators for a Safe Return to School in Fall 2020 2020 [updated 1 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/prepare-safe-return.html#fn25>.
  81. CDC. K-12 Schools and Child Care Programs 2020 [updated 23 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/schools-faq.html>.
  82. CDC. Implementation of Mitigation Strategies for Communities with Local COVID-19 Transmission 2020 [updated 27 May 2020; cited 2020 17 Aug]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/community/community-mitigation.html>.
  83. CDC. Considerations for Schools Operating Schools During COVID-19 2020 [updated 19 May 2020; cited 2020 17 Aug]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/schools.html>.
  84. CDC. School Decision-Making Tool for Parents, Caregivers, and Guardians 2020 [updated 23 Jul 2020; cited 2020 17 Aug ]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/decision-tool.html>.
  85. CDC. Symptoms of Coronavirus 2020 [updated 13 May 2020; cited 2020 17 Aug]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>.
  86. CDC. Interim Guidance for Administrators of US K-12 Schools and Child Care Programs 2020 [updated 10 Apr 2020; cited 2020 17 Aug]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-schools.html>.

87. CDC. K-12 Schools and Child Care Programs: FAQs for Administrators, Teachers, and Parents 2020 [updated 3 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/schools-faq.html>.
88. CDC. When You Can be Around Others After You Had or Likely Had COVID-19 2020 [updated 16 Aug 2020; cited 2020 17 Aug]. Available from: [https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/end-home-isolation.html?CDC\\_AA\\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fprevent-getting-sick%2Fwhen-its-safe.html](https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/end-home-isolation.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fprevent-getting-sick%2Fwhen-its-safe.html).
89. CDC. Considerations for K-12 Schools: Readiness and Planning Tool 2020 [updated not reported; cited 2020 17 Aug]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/downloads/community/School-Admin-K12-readiness-and-planning-tool.pdf>.
90. CDC. Daily Home Screening for Students 2020 [updated not reported; cited 2020 17 Aug]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/downloads/community/schools-childcare/Daily-Home-Screening-for-Students-Checklist-ACTIVE-rev5A.pdf>.
91. Australian Department of Education SaE. Coronavirus (COVID-19) — Help stop the spread – resource for teachers and school staff 2020 [updated 29 May 2020; cited 2020 17 Aug]. Available from: <https://www.dese.gov.au/document/coronavirus-covid-19-help-stop-spread-resource-teachers-and-school-staff>.
92. Australian Department of Health. Coronavirus (COVID-19) and children 2020 [updated 20 Jul 2020; cited 2020 17 Aug]. Available from: <https://www.health.gov.au/resources/publications/coronavirus-covid-19-and-children>.
93. Australian Department of Health. Return to School for Students with Disability COVID-19 Risk Management Plan 2020 [updated 26 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.health.gov.au/resources/publications/return-to-school-for-students-with-disability-covid-19-risk-management-plan>.
94. Australian Department of Health. Australian Health Protection Principal Committee (AHPPC) advice on reducing the potential risk of COVID-19 transmission in schools 2020 [updated 17 April 2020; cited 2020 17 Aug]. Available from: <https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-advice-on-reducing-the-potential-risk-of-covid-19-transmission-in-schools>.
95. Australian Department of Health. Isolation for coronavirus (COVID-19) 2020 [updated 7 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/how-to-protect-yourself-and-others-from-coronavirus-covid-19/isolation-for-coronavirus-covid-19>.
96. Independent Schools of New Zealand. Coronavirus: What schools need to know 2020 [updated not reported; cited 2020 17 Aug]. Available from: <https://www.isnz.org.nz/news/coronavirus-what-schools-need-to-know/>.
97. Ministry of Education New Zealand. Advice for schools/kura 2020 [updated 17 Aug 2020; cited 2020 17 Aug]. Available from:

- <https://www.education.govt.nz/covid-19/advice-for-schoolskura/#Schools-confirmed-probable-case>.
98. Ministry of Education New Zealand. COVID-19 Information and advice for students, whānau, and the education sector 2020 [updated 17 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.education.govt.nz/covid-19/>.
  99. Ministry of Education New Zealand. Alert Level 1 FAQs for Schools and Early Learning Centres 2020 [updated 3 Jul 2020; cited 2020 17 Aug]. Available from: <https://www.education.govt.nz/covid-19/alert-level-1-faqs-for-schools-and-early-learning-centres/>.
  100. Ministry of Education New Zealand. Guidance for schools for Alert Levels 1 - 4 2020 [updated 16 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.education.govt.nz/covid-19/advice-for-schoolskura/guidance-for-schools-for-alert-levels-1-4/>.
  101. Ministry of Health New Zealand. COVID-19: Self-isolation for close contacts 2020 [updated 22 Jul 2020; cited 2020 17 Aug]. Available from: <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-health-advice-general-public/covid-19-self-isolation-close-contacts-and-travellers>.
  102. Ministry of Health New Zealand. Caring for yourself and others who have, or may have, COVID-19 at home 2020 [updated 24 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-health-advice-general-public/caring-yourself-and-others-who-have-or-may-have-covid-19-home>.
  103. Ministry of Health New Zealand. Case definition and testing guidance for COVID-19 2020 [updated 13 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-resources-health-professionals/case-definition-and-testing-guidance-covid-19>.
  104. Ministry of Education Singapore. Arrangements for Schools and Institutes of Higher Learning in Phase Two 2020 [updated 17 Jun 2020; cited 2020 17 Aug]. Available from: <https://www.moe.gov.sg/news/press-releases/arrangements-for-schools-and-institutes-of-higher-learning-in-phase-two>.
  105. Ministry of Education Singapore. FAQs FOR COVID-19 INFECTION IN SINGAPORE 2020 [updated 7 Aug 2020; cited 2020 17 Aug]. Available from: <https://www.moe.gov.sg/faqs-covid-19-infection>.
  106. Ministry of Health Singapore. FAQs on the COVID-19 Situation 2020 [updated 20 Jul 2020; cited 2020 17 Aug]. Available from: <https://www.moh.gov.sg/covid-19/faqs>.
  107. Australian Department of Health. Australian Health Protection Principal Committee (AHPPC) statement on risk management for re-opening boarding schools and school-based residential colleges 2020 [updated 2 May 2020; cited 2020 17 Aug]. Available from: <https://www.health.gov.au/news/australian-health-protection-principal-committee-ahppc-statement-on-risk-management-for-re-opening-boarding-schools-and-school-based-residential-colleges>.
  108. HSE. Self-isolation 2020 [updated 7 Aug 2020; cited 2020 17 Aug]. Available from: <https://www2.hse.ie/conditions/coronavirus/managing-coronavirus-at-home/self-isolation.html>.

109. HSE. Restricted movements for close contacts 2020 [updated 7 July 2020; cited 2020 17 Aug]. Available from: <https://www2.hse.ie/conditions/coronavirus/managing-coronavirus-at-home/if-you-live-with-someone-who-has-coronavirus.html>.
110. Alon TM, Doepke M, Olmstead-Rumsey J, Tertilt M. The impact of COVID-19 on gender equality. National Bureau of Economic Research, 2020 0898-2937.
111. Coibion O, Gorodnichenko Y, Weber M. The cost of the covid-19 crisis: Lockdowns, macroeconomic expectations, and consumer spending. National Bureau of Economic Research, 2020 0898-2937.
112. Edmunds WJ. Finding a path to reopen schools during the COVID-19 pandemic. *The Lancet Child & Adolescent Health*. 2020.
113. Heavey L, Casey G, Kelly C, Kelly D, McDarby G. No evidence of secondary transmission of COVID-19 from children attending school in Ireland, 2020. *Eurosurveillance*. 2020;25(21):2000903.
114. Macartney K, Quinn HE, Pillsbury AJ, Koirala A, Deng L, Winkler N, et al. Transmission of SARS-CoV-2 in Australian educational settings: a prospective cohort study. *The Lancet Child & Adolescent Health*. 2020.
115. Fontanet A, Tondeur L, Madec Y, Grant R, Besombes C, Jolly N, et al. Cluster of COVID-19 in northern France: A retrospective closed cohort study. *medRxiv*. 2020:2020.04.18.20071134.
116. Stein-Zamir C, Abramson N, Shoob H, Libal E, Bitan M, Cardash T, et al. A large COVID-19 outbreak in a high school 10 days after schools' reopening, Israel, May 2020. *Eurosurveillance*. 2020;25(29):2001352.
117. Panovska-Griffiths J, Kerr CC, Stuart RM, Mistry D, Klein DJ, Viner RM, et al. Determining the optimal strategy for reopening schools, the impact of test and trace interventions, and the risk of occurrence of a second COVID-19 epidemic wave in the UK: a modelling study. *The Lancet Child & Adolescent Health*. 2020.

**Published by the Health Information and Quality Authority (HIQA).**

**For further information please contact:**

**Health Information and Quality Authority**

**George's Court**

**George's Lane**

**Smithfield**

**Dublin 7**

**D07 E98Y**

**Phone: +353 (0)1 8147400**

**[info@hiqa.ie](mailto:info@hiqa.ie)**

**[www.hiqa.ie](http://www.hiqa.ie)**

**© Health Information and Quality Authority 2020**