



**World Health
Organization**

REGIONAL OFFICE FOR **Europe**

Schooling during **COVID-19**

**Recommendations from the
European Technical Advisory Group
for schooling during COVID-19**

June 2021

ABSTRACT

These recommendations from the Technical Advisory Group (TAG) on Schooling during the COVID-19 pandemic of the WHO Regional Office for Europe represent the work of the TAG between October 2020 and June 2021. The initial draft of the recommendations were considered at a WHO ministerial meeting on 8 December 2020, after which they were reviewed and updated. The revised recommendation have now been prepared for presentation to another WHO ministerial meeting on 2 July 2021. The recommendations are endorsed by the TAG to represent the best available evidence and expert advice on safe schooling, as at end of June 2021.

Keywords

CHILD
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COVID-19
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SCHOOL TEACHER
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Schooling during COVID-19.

Recommendations from the WHO European Region Technical Advisory Group

At the request of Member States of the WHO European Region at the high-level meeting on safe schooling at the time of COVID-19 on 31 August 2020, the WHO Regional Director for Europe established a Technical Advisory Group (TAG) on Schooling during the COVID-19 Pandemic. The TAG is independently chaired, and members represent a wide range of stakeholders. Possible conflicts of interests are reviewed and managed by the Secretariat at the WHO Regional Office for Europe.

The TAG was set up to:

- provide strategic and technical advice to the Regional Office on matters relating to schooling in times of COVID-19, including the epidemiology of school transmission, infection prevention and control and public health measures and their effects on the development and well-being of school-aged children;
- identify findings from the emerging evidence to inform policy decisions in terms of education, social, development and health outcomes for children and adolescents; and
- advise the Regional Office on issues around reopening and potential reclosure of schools within the context of the coronavirus response, and other measures and their prioritization for infection control, taking into consideration the latest available evidence and early experience of infection prevention measures being taken.

The following recommendations represent the work of the TAG between October 2020 and June 2021. Recommendations on key issues 1–7 were agreed at the second TAG meeting on 12 November 2020 and considered at a WHO ministerial meeting on 8 December 2020. These recommendations were reviewed and updated during the third TAG meeting on 26 January 2021. The recommendations were reviewed again at the fourth meeting of TAG in June 2021 and expanded to include an eighth recommendation on vaccination. These recommendations will be presented to another WHO ministerial meeting on 2 July 2021. The recommendations are endorsed by the TAG to represent the best available evidence and expert advice on safe schooling, as at end of June 2021.

The recommendations represent the views and points of agreement of the TAG experts and do not necessarily denote WHO's position or recommendations.

Children and adolescents in schools are not considered primary drivers of transmission of SARS-CoV-2^a

COVID-19 is reported less frequently in children than in adults. Transmission in education settings can be limited if effective mitigation and prevention measures are in place.¹⁻³ In school settings across the WHO European Region, more outbreaks are reported in secondary and high schools than in primary schools (settings with children up to 10–12 years of age).¹⁻³ Outbreaks in schools that involve only staff members are also observed. Data suggest that children and adolescents are followers, not drivers, of the pandemic, with a slower dynamic in younger children.^{1,3,4} There is to date no evidence that in-school transmission is a significant driver of increasing infection levels. However, the emergence of new variants of COVID-19, which have been shown to have increased transmissibility, require an ongoing risk assessment-based approach with appropriate in-school mitigation measures a prerequisite to keeping schools open.

While precautions must be taken to control the spread of COVID-19 in the community, including through school-based measures, a balance must be struck between imposing such measures and ensuring that children are able to continue learning and socializing to the greatest extent possible.

^a This brief does not include considerations for university settings.

Key issue 1.

Keeping schools open is a key objective

WHO, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations Children's Fund (UNICEF) have stressed that to support children's overall well-being, health and safety, the continuity of education should be at the forefront of all relevant considerations and decisions.^{1,5-8} Frequently observed negative impacts on the mental health of children and adolescents, including increased anxiety and depression rates, are of particular concern in this context. Given the adverse effects of school closures on the health and well-being of students, closures should be considered only as a measure of last resort. To achieve this goal, adequate public health and social measures should be implemented in communities and schools so that on-site schooling can continue. Examples include smaller class sizes, ensuring wider spaces between desks and staggering breaks.^{3,5,18-22} Longer school closures are likely to contribute to widening inequities in relation to education outcomes across the Region.^{6,7,23}

The TAG supports the above and advises that:

- schools should be among the last places to be closed, as school closures have been shown to be detrimental to child health and well-being and educational outcomes;
- if large outbreaks occur or transmission in the community cannot be controlled by any other measures, reactive school closures may be considered as a last resort; and
- measures to control transmission of SARS-CoV-2 in school settings should be specific to the needs of different age groups.

Key issue 2.

Testing strategy in the school setting

Testing strategies in school aim to keep schools safe and open for children and staff. Testing alone, however, cannot substitute for other structural and organizational measures to protect and support children, such as avoiding crowding (including during breaks and transportation), ensuring ventilation, using digital contact-tracing and providing health education.

With the aim of ensuring continuity and safe schooling, children or staff with symptoms of acute respiratory infection of any severity in areas with ongoing community transmission should attend school only if they have a negative test result; this will protect other children and staff from spread of disease and prevent reactive closures of classes or schools.

Screening (systematic serial testing) of children and staff for the early detection of infectious cases without symptoms (pre-/asymptomatic) may be considered, but the cost-effectiveness of this approach in low-prevalence settings is unclear. As countries are moving to widespread screening with rapid diagnostic tests, the value in specific school settings needs to be determined. When there are clusters of pupils with confirmed COVID-19, a school-wide testing approach may be considered, on the condition that clear objectives for the testing activity are determined and there is an agreed plan of action following the test result.^{14–19} Contact-tracing should be initiated promptly following the identification of a confirmed case and should include contacts in the school (classmates, teachers and other staff), households and other relevant settings.^{14–19} Further evidence is needed to enable better understanding of what specific actions should be taken to minimize both transmission and the harms to children associated with being out of school.

Routine checks for symptoms and temperature checks of all children and school staff appear not to be useful for controlling the spread of infection in schools and the community.^{14,15}

The TAG supports the above and advises that:

- the value of both polymerase chain reaction (PCR) and rapid diagnostic antigen tests in school settings in terms of opening schools and controlling transmission needs to be evaluated based on their effectiveness, cost-effectiveness and feasibility;

- testing should be prioritized for symptomatic children with acute respiratory infection of any severity if they belong to a vulnerable group, risk group or are in a special situation with a high risk of further spread, but asymptomatic high-risk exposure (close) contacts of cases should also be considered for testing;
- testing methods should consider diagnostic test accuracy, the need to test before infections spread, whether the student is isolated, frequency of testing, material for testing, support for testing (especially self-testing) and follow-up measures for a positive test;
- cluster investigation in children in school settings should be organized in a way that enables continuity of learning; and
- routine temperature or symptom checking in schools should be avoided, as no evidence is available to support their use.

Key issue 3.

Effectiveness of applied risk-mitigation measures on infection control

Studies on the effects of risk-mitigation interventions in schools, such as limiting contact between children, wearing masks (outside or in classes continuously), closing areas and activities (play, sports, canteens) and enhancing ventilation, are sparse. There is therefore an urgent need for well conducted empirical – rather than modelling – studies to assess the range of effects of different measures implemented in the school setting. Interventions need to be evaluated for their intended and potential adverse effects, and in different age groups.³⁰ Wearing masks is a complex issue and should be considered as one of a package of measures to protect and prevent transmission. Interim guidance published by WHO recommends that children up to the age of 5 should not wear masks.^{31,32} For children aged 6–11 years, a risk-based approach should be taken, considering community transmission levels, ability to maintain physical distancing and ventilation.^{31–33} Over the age of 12 years, the same principles should apply as those implemented for adults in any indoor space where people are together for long periods of time in the context of ongoing community transmission. WHO guidance on handwashing suggests how schools can best implement this simple but very effective measure.^{1,34} Measures currently being adopted in some countries – for example, spraying the school environment with disinfectant, excessive disinfection (rather than cleaning) of surfaces and excessive handwashing – have low or no value for infection control, and may have adverse effects.³⁵

The TAG supports the above and advises that:

- schools should have a risk-mitigation strategy in place; countries should ensure these strategies carefully balance the likely benefits for, and harms to, younger and older age groups of children when making decisions about implementing infection prevention and control measures;
- all the above needs to be balanced with the even worse alternative of schools being closed;
- any measure introduced by schools should follow standard protocols for implementation; and
- countries should review the package of measures regularly and update according to emerging evidence; measures deemed to have no effect or to be harmful should be discontinued, and all measures should be equity-proofed.

Key issue 4. Educational outcomes, mental and social well-being

All infection control measures have the potential to have adverse effects on educational outcomes, mental health, social well-being and health-related behaviours.^{6–8,36–43} It therefore is necessary to consider carefully the positive and negative effects of implementing them. Evidence suggests that learning loss and falls in school enrolment rates due to lockdown, school closures and even distance learning is several times higher in schools in the most deprived areas compared to those in less deprived.^{6,7,44} Schools deliver essential functions beyond education that cannot be delivered online, including the opportunity for real-life interactions with peers, which is essential for healthy development.^{7,8,38,41,45–48} Online teaching therefore remains a suboptimal alternative. In addition, there is evidence that more children are experiencing food insecurity due to lack of school meals, and levels of violence against children increase when staying home during lockdown and school closures. In general, data show that the factors influencing the impact of COVID-19 on learning proficiency are: adapting teaching to the new context; protecting child nutrition; and maximizing contact time.

The TAG supports the above and advises that:

- when closing schools, countries need to guarantee uninterrupted substitute and adapted services for those normally delivered in the school setting, such as special needs education, health services and school meals, where possible;
- countries should secure sufficient support for teaching to be adapted to the new situation and context to minimize learning losses;
- countries should guarantee affordable access to devices and facilities required for online learning and teaching, including functioning Internet connections for schoolchildren and teachers, regardless of whether schools are closed or open, and making sure students and teachers have sufficient digital skills; and
- countries should establish hotlines for children and adolescents seeking psychological support.

Key issue 5.

Children in vulnerable situations

Children in vulnerable situations have been highlighted as being most badly affected by school closures; these include children with disabilities, refugees, children living in conflict areas, forcibly displaced persons and those living in poor or rural areas, especially girls.^{5,7,8,19,58–60} Compared to their peers, children living in socially vulnerable situations, however, are affected disproportionately by changes to the structure of schooling and in-person learning.^{5,7,8,19,58–60} Schools provide critical services for children in addition to education, such as the provision of adult supervision during school hours and school meals.^{9,40,42,45,54,61–64} The absence of these services can put an additional financial burden on households, especially the most vulnerable. As children learn from home, parents and caregivers take on additional responsibilities that may impact on their ability to earn an income.^{8,55,56,65–81} Children with pre-existing health conditions might be at increased risk for severe disease but should not routinely be excluded from on-site schooling. Rather, they should be assessed individually for their specific risk. The objective must be to allow children to live as normal a life as possible.

The TAG supports the above and advises that:

- countries should assess strengths and weaknesses of local support measures and define the most vulnerable groups of children in their setting; this will assist in targeting support to help related investments in children, young people and education, and also help plan for minimizing harm during possible future pandemic waves; to reach this goal, countries should promote and facilitate collaboration of communities and the health, education and social sectors;
- countries should provide additional support to schools in deprived areas and for children living in vulnerable situations, and schools should implement additional measures to further protect children in socially vulnerable situations, including direct outreach to those at risk of dropping out of school;
- living in a vulnerable situation (and lack of access to computers and the Internet at home) should be among the criteria for allowing some children to continue to be physically present in schools when it is necessary to switch to hybrid schooling or full online learning; online learning, when obligatory, must be available to all children regardless of their economic situation, disability and level of digital skills in their family;
- on-site schooling should include education and not consist solely of supervision; and
- children with pre-existing health conditions should not routinely be excluded from on-site schooling, but rather be assessed individually for their specific risk.

Key issue 6.

Changes in the school environment that are likely to be of overall benefit to infection control AND child health

The principles of health promoting schools are even more important in a pandemic. The quality of the school environment is an important factor in schools' ability to improve infection control and overall child health and well-being.⁸³ Improving the school environment has been the cornerstone of the concept of health promoting schools for many years. The school environment is under particular scrutiny during the pandemic and additional investments are being made to ensure improved infection control. Measures that will have a beneficial effect on child health and well-being are equally important. Areas for improvements may include: water supply, sanitation and indoor air; health literacy of schoolchildren and staff through scheduled lessons that help them to enhance their understanding of the basis of the risk-mitigation measures and promote adherence by children, adolescents and school staff; and smaller class sizes in the school environment, which can help to reduce transmission.^{1,3,18,20,30,38,84–87} The presence of well trained school nurses can also enhance the school environment.^{78,88} Under normal non-COVID circumstances, school nurses may be on hand to respond to illness or injury, provide mental health support and direct children to support services. In a pandemic, they can also support the implementation of COVID-specific measures. Promoting outdoor activities and active transport to school through walking and cycling can reduce exposure on crowded public transport and contribute to physical well-being.³⁴

The TAG supports the above and advises that:

- countries should use their health promoting school networks to ensure sustained improvement in the school environment throughout the pandemic, and develop a strategy for preparedness for future outbreaks and crises;
- students, parents, teachers and other school staff should be informed about decisions on safety protocols and rationales and, if possible, involved actively in deciding at school level what risk-mitigation measures are feasible in their daily context;

- countries should ensure a sufficient number of teachers is sustained to reduce class sizes, which will serve to improve infection control as well as child health and educational outcomes;
- countries should ensure optimal collaboration between teaching staff and health and social workers within a resilience plan;
- schools should improve their infrastructure and associated maintenance, including ensuring handwashing facilities with running water and reliable supplies of, for instance, soap, sufficient and adequate toilet facilities and fresh-air ventilation;
- teachers are adequately supported and capacitated to address learning losses among their students and to incorporate digital technology in their teaching to close the digital divide;
- schools should ensure that students, parents, teachers and other school staff are empowered to implement the measures while being able to deliver their core functions; and
- access to online education is guaranteed for children who have to attend on-site schooling.

Key issue 7.

Children's and adolescents' involvement in decision-making

Children have different experiences arising from school closures, online learning and other measures. These range from a sense of heavy loss related to motivation, educational attainment, and maintenance of a healthy daily routine and social life, to positive feelings of increased autonomy and time-saving.^{81,89–94} Negative experiences and feelings dominate, however, particularly with longer school closures. Schoolchildren from all backgrounds often report that effective online learning is not taking place.^{8,9,41,46,81,89,95–97} Before the COVID pandemic, and even during the last year, public authorities and administrations have experienced the benefit of involving young people in making decisions that affect their life, well-being and health.

The TAG supports the above and advises that:

- countries are urged to recognize children's and adolescents' rights at every level and give weight to their voices in relation to schooling and interventions during the pandemic;
- children and adolescents from different age groups and all backgrounds, especially those who are more vulnerable, should be asked to provide their perspectives on the measures affecting them and whether they are helping or hindering them;
- children and adolescents should be enabled to participate actively in the decision-making process at school; and
- youth organizations should be actively involved in the development of policies in the area of children's health and education.

Key issue 8.

Vaccination strategies with the purpose of maintaining education as a societal good

Global vaccination programmes to reduce transmission, severe disease and mortality are ongoing. The main risk factors for severe or fatal COVID-19 are increasing age and underlying medical conditions. Population groups therefore generally are prioritized for vaccination on the basis of age and vulnerability and the nature of their occupations (including high-risk groups such as front-line health-care workers).

Evidence from multiple countries shows that education staff are not at increased risk of infection or severe or fatal COVID-19 compared to adults who are not teachers. Some groups, however, consider that teachers should be included in the prioritization process if the goal of keeping schools open longer is to be secured. This is more about enabling support for continued education rather than perceiving teachers as being at higher risk of infection. The WHO Strategic Advisory Group of Experts on immunization (SAGE) and the European Technical Advisory Group of Experts for vaccination (ETAGE) recommend the prioritization of target groups for vaccination against COVID-19 in three stages.⁷⁸ UNESCO, UNICEF and Education International also call for teachers to be prioritized to receive the COVID-19 vaccine once older and other high-risk populations are vaccinated.⁷⁹ Proposed benefits of vaccinating teachers and other professionals working in schools include ensuring continuity of teaching in person, which helps to keep schools open, and increasing confidence in parents that schools are safe places in which to be.⁷⁹ The consequences of missed or impaired education are severe, especially for the most marginalized.

Further evidence is required to ascertain the optimum set of mitigation strategies, including vaccination of adolescents and potentially younger children, that would achieve the full range of health, social and educational aspirations for entire populations, particularly younger generations.

The TAG supports the above and advises that:

- vaccine trials are needed urgently with respect to children of all ages so that vaccination strategies can be refined;
- a child not being vaccinated must not be seen as an argument for withholding either school attendance or after-school activities from the child;

- research should seek to determine the positive impact that vaccination programmes for children and young people can have on a full range of health, social and educational outcomes;
- national vaccination strategies should ensure teachers and other professionals working in schools are considered when prioritizing access to COVID-19 vaccinations; and
- vaccination strategies should consider how they can support schools to be open longer, maintaining positive education outcomes while minimizing and preventing negative mental and social outcomes.

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Annex 1

Results of the voting and comments from TAG members

Results from voting on TAG recommendations by 25.06.2021

Overview below shows that all 8 key issues in the TAG recommendations have been accepted by the TAG.

Key issue number	Number of accepts	Accepts in %
Key issue 1. Keeping schools open is a key objective	26	100
Key issue 2. Testing strategy in the school setting	23	88
Key issue 3. Effectiveness of applied risk-mitigation measures on infection control	Unchanged since last vote	100
Key issue 4. Educational outcomes, mental and social well-being	25	96
Key issue 5. Children in vulnerable situations	25	96
Key issue 6. Changes in the school environment that are likely to be of overall benefit to infection control AND child health	26	100
Key issue 7. Children's and adolescents' involvement in decision-making	25	96
Key issue 8. Vaccination strategies with the purpose of maintaining education as a societal good	22	85

26 out of 29 eligible votes were received (90%).

The bar for accepting a key issue was set to 75% of those who have voted.

Comments from TAG members who rejected a key issue

Key issue 2. Testing strategy in the school setting

- I suggest if it is possible to replace the term routine testing in the first sentence with the term group testing. Group testing of asymptomatic students can be organized from time to time depending on the epidemiological situation or a particular activity (for example, before a sports competition) in a particular environment or school. Routine testing, however, suggests regular testing at the national or regional level. The term group testing is broader than the term routine testing, so this replacement of the term would not lose the possibility of routine testing. If it is not possible to adopt this remark, I support the original proposal.
- I suggest adding that testing strategies need to be adapted to local epidemiology and vaccine coverage.

Key issue 4. Educational outcomes, mental and social well-being

- I personally believe it is an unrealistic expectation to expect countries to "guarantee" affordable access to devices.

Key issue 8. Vaccination strategies with the purpose of maintaining education as a societal good.

- There is no reason for prioritizing teachers for vaccinations ahead of other groups. There is no evidence that teachers are at increased risk of infection, morbidity or mortality compared to adults who are not teachers. Prioritizing based on profession would detract from the speed and efficiency of vaccine roll out. Thus prioritizing teachers would likely lead to a net decrease in prevention of serious morbidity and mortality. Therefore countries should not consider prioritizing teachers once older and other high-risk populations have been vaccinated.
- Feel this needs to at least mention the WHO DG's speech urging rich countries to consider the needs of other countries that have not even vaccinated their most vulnerable populations yet, before extending vaccination to children.
- Vaccination should be prioritized to those whose lives are at risk before schools – older aged and comorbidities. Teachers should only be vaccinated according to their population risk by age and comorbidity – not because they are teachers. Children should only be considered for vaccination once all those at risk worldwide have been offered the vaccine.

Annex 2

List of TAG members

Technical advisory group on Schooling during Covid-19 pandemic

Individual TAG members

Prof Antony MORGAN, TAG Chair, GCU School of Health and Life Sciences, Glasgow Caledonian University, London, United Kingdom

Mr Bruce ADAMSON, Children and Young People's Commissioner Scotland, Edinburgh, Scotland, United Kingdom

Dr Efrat AFLALO, Director of the Health Education and Promotion department, Ministry of Health, Jerusalem, Israel

Prof Freia DE BOCK, Head of Department Effectiveness and Efficiency of Health Education, Federal Centre for Health Education, Cologne, Germany

Prof Chris BONELL, Professor of Public Health Sociology / Associate Dean for Research

Faculty of Public Health & Policy, London School of Hygiene and Tropical Medicine, London, United Kingdom

Dr David EDWARDS, General Secretary, Education International, Brussels, Belgium

Dr Florian GÖTZINGER, Programme director for Paediatric Infectious Diseases, Vienna Healthcare Group, Vienna, Austria

Prof Walter HAAS, Head of the Unit for Respiratory Infections, Department for Infectious Disease Epidemiology, Robert Koch Institute, Germany

Dr Adamos HADJIPANAYIS, President, European Academy of Paediatrics, European University Cyprus, Nicosia, Cyprus

Prof Mark JIT, Department of Infectious Disease Epidemiology, London School of Hygiene and tropical medicine, London, United Kingdom

Prof Didier JOURDAN, UNESCO chair for health and education, Clermont-Auvergne University, Clermont-Ferrand, France

Dr Colette KELLY, Director, Health Promotion Research Centre, National University of Ireland Galway, Galway, Ireland

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Professor Leyla NAMAZOVA-BARANOVA, European Paediatric Association EPA/ UNEPSA - past president; Russian national Research Medical University – head of pediatrics department; Paediatrics and child health research institute – head; president of the Union of paediatricians of Russia; IPA SC member, Moscow, Russia

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The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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