Recommendations
from the WHO Technical Advisory Group on Safe Schooling During the COVID-19 Pandemic

Revised version following the eighth TAG meeting 20 January 2022
ABSTRACT
The WHO Technical Advisory Group (TAG) on Safe Schooling During the COVID-19 Pandemic was set up by the WHO Regional Director for Europe in August 2020. The TAG’s eight recommendations taken together represent a framework for action for schools across the WHO European Region. This document was developed to inform discussion on the recommendations at the TAG’s eighth meeting on 20 January 2022.

Keywords
CHILD
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COVID-19
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SCHOOL TEACHER
INFECTION CONTROL

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It is important to note that the recommendations represent the views and points of agreement of the TAG experts and do not necessarily denote WHO’s position or recommendations.
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Introduction

The WHO Technical Advisory Group (TAG) on Safe Schooling During the COVID-19 Pandemic was set up by the WHO Regional Director for Europe in August 2020. The task of the group (comprising a wide range of stakeholders, including young people) was to advise the WHO Regional Office for Europe on how best to secure the continuity of schooling during the pandemic and minimize the negative impacts associated with school closures on a wide range of child and adolescent outcomes.

To-date the TAG has produced eight recommendations which taken together represent a framework for action for schools across the WHO European Region. They have been developed following discussions on a wide range of available evidence and knowledge presented across eight TAG meetings and have been updated as necessary to reflect changes in the epidemiological situation. The TAG believes their implementation provides the best possible opportunity for countries to secure positive outcomes in relation to education, social development, well-being and health for children and adolescents during and beyond the COVID-19 pandemic.

Fuller details of the terms of reference and activities of the TAG can be found in the Annex.

Setting the context for the recommendations

The work to produce the TAG recommendations was complex. During 2020 and 2021, the nature of COVID-19 and the pandemic and responses to it changed. New variants have emerged, with strategies developed to mitigate their impact. Evidence to inform decisions about the best means of preventing transmission has also been emerging, sometimes changing, and rarely definitive.

In 2020, when populations were still unvaccinated, COVID-19 was reported less frequently in children than in adults. With increased vaccination in other age groups and the emergence of highly transmissible variants of concern, children and adolescents now make up an increasing proportion of notified cases in many countries.

Variants of COVID-19 that show higher transmissibility and immune evasion have led to a wave of infection across the WHO European Region and involving all age groups (including children). The rise in case incidence has been driven by a number of factors, including high population susceptibility (particularly in children and young adults) due to varying rates of prior infection, variable vaccine uptake (particularly in vulnerable populations), vaccine waning, the relaxation of public health mitigation measures and changes in people’s behaviour. The impact of these factors varies across countries.

Despite this, transmission in education settings can be limited if effective mitigation and prevention measures are in place. The updated recommendations summarized in this report support the aim of ensuring the continuity of schooling during the pandemic.
There are a number of things to note when reading this document:

- The recommendations are applicable to all countries in the European Region, but it is recognized that ongoing risk assessment is required at country level – and potentially also at subnational level – to determine how best to apply the recommendations in each context. The consideration of good epidemiological data is key to this process. Country level implementation of these recommendations will also depend on the availability of financial resources and the capacities of the health and education sectors.

- While precautions must be taken to control the spread of COVID-19 in the community, including through school-based measures, a balance has to be struck between imposing such measures and ensuring that children are able to continue learning and socializing to the greatest extent possible. Mitigation measures in schools should be proportionate to ongoing strategies in the community. Schools may need to adapt measures to take account of different age groups or other characteristics of the population.

- The eight recommendations are interconnected; as such, they represent a multicomponent public health approach to the current challenge. As more evidence becomes available, it may be possible to determine the relative impact of certain strategies (such as mask-wearing) to allow countries to implement those that have the highest benefit at the lowest level of adverse effects on children and cost to society in their context.

The document reflects the current epidemiological position as it relates to children and adolescents. However, the recommendations and associated advice statements have been written in such a way as to retain their relevance, irrespective of future changes in the pandemic.

Each of the eight recommendations presented below provide a summary of the key issue and detail a number of associated key actions that should be implemented by schools across the Region to secure a range of positive health and educational outcomes during the pandemic. Recommendation 1 represents the group’s aspiration that to support the continuity of education, schools should be kept open or at least be the last structures in societies to close. Recommendation 2 highlights the need to take account of the wide range of poorer health and educational outcomes associated with school closures. Recommendations 3 and 4 set out two underpinning principles already utilized in mainstream public health. Namely, to ensure that: school-aged children are encouraged and supported to be active in decision making processes so that any actions taken reflect their perspectives; special attention is paid to those living in vulnerable situations so that health and related inequities are not exacerbated as a result of certain actions being taken. All actions taken during the implementation of the recommendations should be able to demonstrate that these principles have been considered. Recommendations 5–7 summarize actions that can be taken to minimize transmission in schools. Recommendation 8 confirms the importance of the school as a health-promoting environment that supports the achievement of health and related objectives.
Recommendation 1.  
Key issue: 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. 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, well-being, educational advancement and overall development 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. Recommendations 2–8 provide further details on how this can be achieved.

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, 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, providing appropriate distance learning is established for all; and
• measures to control transmission of SARS-CoV-2 in school settings should be implemented to allow schools to remain open.
Recommendation 2.
Key issue: Educational outcomes, mental and social well-being

Many infection control measures have the potential to have adverse effects on educational outcomes, mental health, social well-being and health-related behaviours. It is therefore necessary to balance carefully the positive and negative effects of their implementation.

Schools provide essential functions beyond education that cannot be delivered online, including the opportunity for real-life interactions with peers, which are essential for healthy development. 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 in countries where these are provided, and higher rates of domestic abuse have been reported when families are staying home during lock downs and school closures.

Routine vaccinations have been disrupted during school closures in countries where school health services are responsible for administering the vaccines.

In general, data show that adapting teaching to the new context, protecting child nutrition and maximizing contact time are all key factors associated with the maintenance of learning proficiency during the pandemic.

Understanding the potential impact on inequitable outcomes is crucial. For example, evidence suggests that learning loss and declines in school enrolment rates due to lockdown, school closures and associated distance learning are several times higher in schools in the most deprived areas compared to those in the least deprived. Students with disabilities have also shown to be disproportionally affected by COVID-19. There is therefore a need to ensure that teaching and learning are inclusive and accessible.

The TAG supports the above and advises that:

- when closing schools as a last resort, countries should 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 applicable);
- countries should secure sufficient support for teaching and learning 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 adapted technical solutions for children with special needs, functioning Internet connections for schoolchildren and teachers, regardless of whether schools are closed or open, and make sure students and teachers have sufficient digital skills;
- even when schools are open, remote learning readiness should be developed and secured for all, with an additional emphasis on children in vulnerable situations; and
- countries should establish hotlines for children and adolescents seeking psychological support.
Recommendation 3. 
Key issue: Children’s and adolescents’ involvement in decision-making

Children have different experiences arising from school closures, online learning and other measures. These range from reduced motivation, educational attainment and maintenance of a healthy daily routine and social life, to positive feelings of increased autonomy and timesaving. 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. Before the COVID-19 pandemic, and even during the pandemic, public authorities and administrations 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. For example, supporting effective communication about the risks and benefits of certain mitigation measures will enable them to participate in decision-making more easily; and
- youth organizations should be actively involved in the development of policies in the area of children’s health and education.
Recommendation 4.
Key issue: Children in vulnerable situations

Children in vulnerable situations, including those with disabilities, refugees, children living in conflict areas, forcibly displaced persons and children living in poor or rural areas, especially girls, have been highlighted as being most severely affected by school closures. Compared to their peers, children living in socially vulnerable situations are also affected disproportionately by changes to the structure of schooling and in-person learning. Schools provide critical services for children in addition to education, such as the provision of adult supervision during school hours and, in some countries, routine vaccinations and school meals. 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.

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 to assist in targeting additional support to help them;
- 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 and disability and the level of digital skills in their family;
- children with pre-existing health conditions should not routinely be excluded from on-site schooling, but rather be assessed individually for their specific risk; preventive measures, including access to COVID-19 vaccination, should be made available to children in vulnerable situations and their families; and
- countries should plan for minimizing harm during possible future pandemic waves by promoting and facilitating collaboration between communities and the health, education and social sectors;
Recommendation 5.
Key issue: Effectiveness of applied risk-mitigation measures on infection control

A range of measures, including social distancing within and between classes (e.g. reducing class size, implementing cohorting measures, ensuring a greater distance between desks), maintaining good ventilation (e.g. opening windows, enhancing mechanical ventilation), wearing masks (in classes and/or communal areas) and modifying activities (e.g. moving indoor play or sports activities outdoors, modifying canteen use), can help reduce the risk of transmission in schools. No single measure by itself can ensure safe schooling during COVID-19, but multiple measures implemented together can make schools a relatively safe place for education, social interaction and other school-related services. It should be ensured that such measures do not widen existing inequities.

Empirical studies of the effects of risk-mitigation interventions in schools, are emerging. A recently published Cochrane review systematically reviewed the range of interventions currently employed in schools and found some indication that the measures were able to reduce transmission. Findings were based largely on modelling studies and further work is required to assess the range of effects of different measures implemented in the school setting.

The implementation of known measures should be driven by a risk-based approach that considers community transmission and balances the possible benefits and harms of each measure. For example, mask-wearing in schools is a complex issue, but as part of a broad range of measures, it is likely to contribute to reducing transmission and is low-cost. Decisions regarding their use need to reflect compliance issues (adherence to and correct use of masks) and impacts on psychosocial development. Guidance published by WHO currently recommends mask-wearing for children aged 6–11 years inside buildings where there is poor ventilation and when distance cannot be maintained, and that mask-wearing for over-12s should follow adult recommendations.

The issue of mask wearing presents an opportunity to embrace the participation of young people by seeking their views.

Measures currently being adopted in some countries, such as spraying the school environment with disinfectant and excessively disinfecting (rather than cleaning) surfaces, have low or no value for infection control and may have adverse effects.

Overall, measures in schools should follow, and be proportionate to, ongoing measures in the community, although adaptations may be required for children.

The TAG supports the above and advises that:

- schools should have a risk-mitigation strategy in place and implement a range of preventive measures together to ensure the continuity of face-to-face learning and interaction;
- good ventilation and mask-wearing should be a part of this strategy
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;

any measure introduced by schools should follow standard protocols for implementation;

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; and

any measures introduced should be informed by the perspectives of young people.
Recommendation 6.  
Key issue: Testing strategy in the school setting

Testing strategies in school, form an important part of a multicomponent strategy that aims to keep schools safe and open for children and staff. Testing can help reduce the risk of new introductions of the virus in educational settings but needs to be considered in conjunction with recommendations 5, 7 and 8, which together all help to reduce in-school transmission.

All components of the strategy could be beneficial depending on both the current epidemiological situation and the range of other mitigation measures in place.

Therefore, testing in schools, used in combination with other measures, has a place in minimizing infection and transmission. The feasibility and affordability of implementation will always have to be considered.

A range of testing strategies exist to support reduced transmission include: diagnostic testing aimed at children showing symptoms of COVID-19 and close contacts of a confirmed case; routine screening of an asymptomatic school population; and surveillance testing involving sampling a fraction of the population to identify potential outbreaks.

Screening (or 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. A school-wide testing approach may be considered when there are clusters of pupils with confirmed COVID-19, but clear objectives for the testing activity are required and an agreed plan of action should be put in place following the test result.

No evidence is available to suggest that routine checks for symptoms and temperature checks of all children and school staff are useful for controlling the spread of infection in schools and the community.

Children or staff with symptoms of any acute respiratory infection should not attend school.

The TAG supports the above and advises that

in-school testing strategies need to be evaluated continuously based on their effectiveness, cost–effectiveness and feasibility and in relation to community transmission levels and vaccination uptake among pupils and staff. The following should be considered either separately or in combination:

- the implementation of testing strategies should take account of the frequency of testing, diagnostic accuracy, the need to test before infections spread and whether the student is isolated;
- cluster investigation in children in school settings should be organized in a way that enables continuity of learning;
• when the overall COVID-19 strategy is aimed at reducing community transmission, serial or systematic testing of asymptomatic students could be used.

• Test-to-Stay strategies can be used to avoid quarantine of close contacts of cases in the school environment (for example, daily rapid tests of all close contacts of a case, making continuity of schooling dependent on a daily negative test result);

• schools should have easy access to materials required for testing, training on taking tests (especially self-testing), follow-up measures for those testing positive and a system for monitoring positive and negative results; and

• routine temperature or symptom checking in schools should be avoided.
Recommendation 7.
Key issue: Vaccination strategies with the purpose of maintaining education as a societal good

Vaccination programmes to reduce transmission, severe disease and mortality have been ongoing globally for some time. The main risk factors for severe or fatal COVID-19 are increasing age and underlying medical conditions. Generally, population groups are prioritized for vaccination on the basis of age and vulnerability and the nature of their occupations (for example, high-risk groups such as front-line health and social 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 other groups of adults. Some authorities, 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. 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, particularly in countries where the vaccination rate is still low.

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 parents’ confidence that schools are safe places for their children.

Some vaccine trials have now been completed for use in children and adolescents and the WHO's global Strategic Advisory Group on Immunization (SAGE) has confirmed them to be safe for use with those aged 5 to 17. SAGE and the European Technical Advisory group on Immunization (ETAGE) recommended prioritizing vaccination for those 12-17 years old adolescents who had a health condition known to significantly increase the risk of severe COVID-19. Their view was that the vaccination of other children and adolescents was less urgent as they tended to have milder disease compared to adults. Several countries in the Region have already included these age groups in their national vaccination strategy. It is important to note however that evidence on the impact of vaccinating children on SARS-CoV-2 transmission is still evolving and the full range of risks and benefits, is still to be determined.

The TAG supports the above and advises that:

- not being vaccinated must not be used as an argument for withholding school attendance or after-school activities from any 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, where vaccination rates remain low should ensure teachers and other professionals working in schools are considered when prioritizing access to COVID-19 vaccinations; and
- teachers and other school staff should be fully vaccinated (including with boosters where applicable).
Recommendation 8.
Key issue: 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.

Improving the school environment has been the cornerstone of the concept of health-promoting schools for many years. The school environment has been 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.

The presence of well trained school nurses can also enhance the school environment. Under normal non-COVID-19 circumstances, school nurses may be on hand to respond to illness or injury, provide mental health support, direct children to support services and, in some countries, implement vaccination schemes. In a pandemic, they can also support the implementation of COVID-19-specific measures.

Promoting outdoor activities provide an opportunity to be together whilst reducing time spent in close contact. Encouraging active transport to school through walking and cycling can reduce exposure on crowded public transport. Both of which contribute to physical well-being.

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, school principals, 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 soap, sufficient and adequate toilet facilities and fresh-air ventilation;

• teachers should be adequately supported and capacitated to address their students’ learning losses 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.
Annex 1

WHO Technical Advisory Group on Safe Schooling During the COVID-19 Pandemic: terms of reference and activities

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 its members represent a wide range of stakeholders, including young people. 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 recommendations represent the work of the TAG between October 2020 and January 2022. The first set of seven recommendations was 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 the TAG in June 2021 and expanded to include an eighth recommendation on vaccination. These recommendations were 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 January 2022. Please note the recommendations have been renumbered in this document to provide a more logical and coherent flow (see section on ‘setting the context …’ for further details).
Annex 2
List of Technical Advisory Group (TAG) Members

Technical advisory group on Schooling during Covid-19 pandemic

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Czechia
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Italy
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Latvia
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Netherlands
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