Fifth and sixth meeting of the Technical Advisory Group on Safe Schooling During the COVID-19 Pandemic

Copenhagen, Denmark
21 May 2021 and 8 June 2021
ABSTRACT

The Technical Advisory Group (TAG) on Safe Schooling During the COVID-19 Pandemic was set up to provide strategic and technical advice to the WHO Regional Office for Europe 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. The TAG aims to identify findings from emerging evidence to inform policy decisions in terms of education, social, development and health outcomes for children and adolescents. This report is of the fifth and sixth TAG meetings, held in Copenhagen, Denmark, on 21 May 2021 and 8 June 2021.

Keywords

CHILD
SCHOOL
COVID-19
SARS-COV-2
SCHOOL TEACHER
INFECTION CONTROL

WHO/EURO: 2021-2790-42548-59131
© World Health Organization 2021

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO: https://creativecommons.org/licenses/by-nc-sa/3.0/igo).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: “This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition: Fifth and sixth meeting of the Technical Advisory Group on Safe Schooling During the COVID-19 Pandemic. Copenhagen, 21 May 2021 and 8 June 2021. Copenhagen: WHO Regional Office for Europe; 2021”.

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization. (http://www.wipo.int/amc/en/mediation/rules/)


Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

Sales, rights and licensing. To purchase WHO publications, see http://apps.who.int/bookorders. To submit requests for commercial use and queries on rights and licensing, see http://www.who.int/about/licensing.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers’ products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

This publication contains the report of the fifth and sixth meetings of the Technical Advisory Group on Safe Schooling During the COVID-19 Pandemic. Copenhagen, Denmark 21 May 202 and does not necessarily represent the decisions or policies of WHO.
# CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background</td>
<td>2</td>
</tr>
<tr>
<td>Proceedings of the fifth TAG meeting, 21 May 2021</td>
<td>3</td>
</tr>
<tr>
<td>Summary of the fifth TAG meeting</td>
<td>3</td>
</tr>
<tr>
<td>Opening</td>
<td>4</td>
</tr>
<tr>
<td>Youth perspective</td>
<td>4</td>
</tr>
<tr>
<td>Overview of school measures and school closures</td>
<td>5</td>
</tr>
<tr>
<td>Public health, social measures and schooling in the context of</td>
<td>6</td>
</tr>
<tr>
<td>vaccination against COVID-19</td>
<td>6</td>
</tr>
<tr>
<td>COVID-19, children and schools</td>
<td>6</td>
</tr>
<tr>
<td>Children and long COVID</td>
<td>7</td>
</tr>
<tr>
<td>Long-term impacts of school closures on children</td>
<td>8</td>
</tr>
<tr>
<td>Discussion on issues to be brought forward to the high-level</td>
<td>8</td>
</tr>
<tr>
<td>meeting and key issues</td>
<td>8</td>
</tr>
<tr>
<td>Main messages</td>
<td>11</td>
</tr>
<tr>
<td>The way forward</td>
<td>11</td>
</tr>
<tr>
<td>Proceedings of the sixth TAG meeting, 8 June 2021</td>
<td>12</td>
</tr>
<tr>
<td>Summary of the sixth TAG meeting</td>
<td>12</td>
</tr>
<tr>
<td>Opening</td>
<td>12</td>
</tr>
<tr>
<td>Learning loss</td>
<td>13</td>
</tr>
<tr>
<td>School environments: WASH in schools and indoor ventilation</td>
<td>15</td>
</tr>
<tr>
<td>COVID-19 vaccination in children</td>
<td>16</td>
</tr>
<tr>
<td>Discussion on key issues</td>
<td>18</td>
</tr>
<tr>
<td>Main messages</td>
<td>18</td>
</tr>
<tr>
<td>The way forward</td>
<td>19</td>
</tr>
<tr>
<td>Annex 1. Programmes</td>
<td>20</td>
</tr>
<tr>
<td>Annex 2. Participants</td>
<td>22</td>
</tr>
</tbody>
</table>
Background

SARS-CoV-2 has disrupted the lives of children and adolescents. The impact has been less due to the infection and disease itself, but rather the public health and social measures (PHSM) for infection control that affect their everyday lives, education, health and well-being. The WHO Regional Office for Europe has established a European regional Technical Advisory Group (TAG) on Safe Schooling During the COVID-19 Pandemic to build an understanding of the effectiveness and adverse effects of infection prevention and control and other measures implemented in school settings and their impacts on children’s lives. The purpose of the TAG is to ensure that children’s lives and education are as unaffected and uninterrupted as possible, while ensuring the safety of children, educators and other school staff and keeping COVID-19 transmission under control.

TAG meetings held in October and November 2020 led to recommendations being made to a high-level meeting of Member State ministries of health and education in December 2020. A third TAG meeting in January 2021 reviewed the COVID-19 situation with a focus on the new variants of SARS-CoV-2 and discussed the possible impact of using recently licensed vaccines in the context of schools and children’s health and education. The fourth TAG meeting reviewed and revised the recommendations.

Schools will most likely continue to struggle with SARS-CoV-2 in the next school year. There is a need, therefore, to project the recommendations into the next school year after the summer break to enable countries and schools to be better prepared. The WHO Regional Director for Europe, together with partner agencies, has agreed to host a high-level meeting on 2 July 2021 at which the experiences from this school year can be summarized and the TAG recommendations for the next school year can be presented and deliberated. While the fifth TAG meeting looked at which issues would need to be brought forward to the high-level meeting, the sixth TAG meeting revisited the recommendations.

The respective programmes and participants of the two meetings are given in Annexes 1 and 2.
Summary of the fifth TAG meeting

With decreasing cases of COVID-19 in the WHO European Region, the fifth TAG meeting focused on issues ranging from PHSM in the Region and long COVID in children, to possible long-term impacts of PHSM that have been implemented. Members of the TAG specified issues to be brought forward at the high-level meeting in July.

Updates on the schooling situation were presented to the TAG. On average, SARS-CoV-2 cases in the Region are decreasing, while vaccination rates are increasing. Member States have shifted from full school closures in favour of partial closures or schools being open with infection prevention and control measures in place. Schools have also initiated lifting of PHSM. Evidence is emerging that schools may not be a driver of the pandemic, and transmission from children to adults occurs primarily in older adolescents. A severe course of disease remains rare in children, but there is evidence of long COVID occurring in children, predominantly among older adolescents.

There is serious concern about how PHSM in schools affect children in the short and long terms, and equity concerns about the mitigation measures that have been implemented. There is no equitable access to remote learning and service access for children across the Region who have been affected by school closures. This leaves vulnerable children at risk of falling further behind their peers. Targeted and specific support is needed for them, and also for teachers, to mitigate the learning loss and ensure healthy development for children and adolescents.

Box 1 highlights comments made by youth representatives to the TAG.

---

Box 1. Young voices

Youth representatives to the TAG reflected on their experiences of schooling and their current situation, stating:

- changing schedules with on-site and remote learning has been difficult to adjust to;
- engagement in class is now higher and students are appreciating returning to school; and
- students have experienced increased levels of stress due to preparation for exams, which appears to be more difficult via remote learning.
Opening

Antony Morgan (Chair of the TAG and Professor in Public Health, Glasgow Caledonian University, United Kingdom) opened and explained the purpose of the meeting, focusing on how the TAG provides strategic and technical advice to the WHO Regional Office for Europe on matters relating to schooling in times of COVID-19.

The purposes of the fifth TAG meeting were to:

- receive new and updated evidence from various TAG members on key areas related to the terms of reference; and
- review recommendations for changes in preparation for the high-level meeting in July 2021.

Natasha Azzopardi-Muscat (Director of the Division of Country Health Policies and Systems, WHO Regional Office for Europe) thanked all members of the TAG for the time and efforts they had dedicated to the meeting, to the recommendations and to supporting the Regional Office on this important topic.

Martin Weber (Regional Advisor for Child and Adolescent Health, WHO Regional Office for Europe) reminded participants of the declaration of interest that should be completed by all TAG members if there had been any change in their conflict-of-interest status since the fourth TAG meeting.

Youth perspective

Frida B. Rasmussen reflected on her experience of schooling in recent weeks.

Frida is in her second year of high school and has spent half her time physically in school. Consequently, she has had on-site teaching every other week. From her experience, it is challenging to alternate routines every other week, despite it being nice to return to school physically. She found that her engagement and that of her classmates was enhanced when they were on site in school, as everyone appreciated being able to return to class. She will return fully to school this week, only shortly before the exam period. Exams have been a stressor, as it appears more difficult to prepare through remote learning. She feels she has missed out on learning content.
Malika Nakisbekova stated that it had been a very stressful year for students in her high school. Final decisions on how to conduct exams were not reached until late February. The timing of the first exam also changed suddenly because a student got COVID. The students still managed to get high grades and finish high school successfully, but the uncertainty throughout the year caused lots of problems and stress. Exams also caused issues for students completing the national (11-year) high-school programme. Their studies for about a year had been online, but the Ministry of Education decided not to cancel exams and to change the exam format, making them even harder. The outcomes of this year have not been too detrimental to Malika, but not being able to attend school in person means that much content has been missed, so there will be more learning to catch up on next year.

Overview of school measures and school closures

Kayla King (Consultant for Country Health Emergency Preparedness and the International Health Regulations, WHO Regional Office for Europe) presented a comprehensive overview of current school closure status across the European Region and provided a summary of Member States that require or recommend that students, teachers or school staff wear masks when in school settings. She emphasized key trends across the Region, focusing on schools’ severity index rankings, which show that Member States have transitioned away from full school closures in favour of partial closures or being open with infection prevention and control measures in place. Key takeaways were that rapid diagnostic testing of students and staff continues but is not common, while case detection of individuals and classes has increased in prevalence and has become a key trend. As vaccinations are provided to younger age groups, shifts away from required infection prevention control measures (including compulsory mask-wearing) have begun.

The presentation had no implications for the standing TAG recommendations.
Public health, social measures and schooling in the context of vaccination against COVID-19

Efrat Aflalo (Director of Health and Education Promotion Department, Ministry of Health, Israel) presented on the PHSM taken in Israel during the COVID-19 pandemic. The vaccination campaign was initiated in January 2021, and in May 2021, 59% of children aged 16–19 had been vaccinated. The education system has been opened through a regional traffic-light system reflecting COVID-19 incidence. Currently, most regions are green and amber. The high vaccination rate among teachers enabled them to move between classes without any restrictions, as of 14 April.

Generally, recommendations such as mask-wearing and restrictions on the consumption of food outside of classrooms have been implemented throughout the school year. Parents are allowed to enter school grounds only when in possession of a Green Pass (an entry permit for recovered or vaccinated individuals). The validity of the Green Pass has been extended through to December 2021. Contact-tracing is performed when COVID-19 cases are diagnosed. The Ministry of Health recommends testing of wider circles beyond the affected class when a COVID-19 case is detected in schools. The entire class enters into quarantine and students and their contacts, including contacts who already have been vaccinated, are tested. Contacts in quarantine are tested in the community while wider circles (not close contacts) are tested in schools as a part of screening to find hidden morbidity.

No changes to the TAG recommendations were suggested.

COVID-19, children and schools

Jonathan Suk (Senior Expert for Public Health Emergency Preparedness, European Centre for Disease Prevention and Control (ECDC)) presented on the roles of children in COVID-19 transmission. Generally, children and adolescents can transmit in household and community settings, but there is a high probability that transmission is less efficient among children compared to adults. Hospitalizations, severe COVID-19 disease and multisystem inflammatory syndrome in children (MIS-C) remain rare among school-aged children.
Transmission pathways seem to be more likely in secondary than primary schools. Living with young children does not seem to increase adults’ risks of COVID-19 infection, even when schools are open. A study published by the Lancet Regional Health Europe investigating the role of schools in the second SARS-CoV-2 wave in Italy concluded that opening schools may not have been a driver of the second wave of the pandemic, as SARS-CoV-2 incidence among students was lower than in the general population and incidence among teachers was comparable to the population of similar ages, though the latter finding was not statistically significant. It is anticipated that future discussions will focus on the risks and benefits of vaccinating children.

No amendments to the TAG recommendations arose from the evidence presented.

**Children and long COVID**

Florian Götzinger (Programme Director for Paediatric Infectious Diseases, Vienna Healthcare Group, Austria) presented on long COVID in children. COVID-19 can have a long-term effect on children, including those who have had an oligosymptomatic course of disease or asymptomatic infection. Estimates of the prevalence of long COVID vary depending on the study design, recruitment settings, questionnaire design, symptoms and recovery assessments. Data from the United Kingdom’s Office for National Statistics showed a long-COVID prevalence of around 10% in children after three months of infection. Unpublished preliminary data from a study suggest the duration of long-lasting symptoms in children after SARS-CoV-2 infection, with 14% of children in the study showing symptoms persisting longer than one month and 8% three months or longer. Older children (10–14 years) seem to be more affected by long COVID than younger age groups, but sufficiently sized studies with healthy control groups are needed to estimate the burden of long COVID in children.

The impacts for the TAG recommendations arising from the presented evidence are two-fold: first, it is important to raise awareness about long COVID in children without causing anxiety; and secondly, the evidence of long COVID in children should not impede the way back to normality regarding children’s education and other important elements for development in this crucial period of life.
Long-term impacts of school closures on children

Vivien Hülsen (consultant, Child and Adolescent Health Programme, WHO Regional Office for Europe) presented a summary of the literature on the long-term impacts of school closures on children’s health, education and economic outcomes. The review focused on modelling studies. In summary, the evidence on long-term health impacts is scarce. Modelling studies suggest some impacts on future obesity and years of life lost associated with schools being closed. Forecasts of learning losses seem to be larger than the loss of actual schooling time, as children not only miss out on new education, but also forget previously learned information. If no actions are taken, the learning losses will accumulate at aggregate level, leading to losses in gross domestic product (GDP) and consequent serious concerns for investments in education and health, the areas that have been most affected by reduced government budget allocation in previous economic crises.

The presentation had no implications for the standing TAG recommendations.

Discussion on issues to be brought forward to the high-level meeting and key issues

Following the presentations, the TAG moved into reviewing whether changes would need to be made to the recommendations before the high-level meeting in July. No changes were proposed by presenters to the TAG, but the TAG discussed what additional issues would need to be addressed at the high-level meeting.

The discussion highlighted the importance of guidance on summer camps, both indoors and in schools. It is essential to have clear guidance on this issue. While summer camps are important for children, the epidemiological situation needs to be considered, so a one-size-fits-all approach may not be appropriate. Summer camps will be underway prior to the high-level meeting so will be considered in depth by a subgroup at the sixth TAG meeting.

TAG members gave suggestions on topics to be brought forward at the high-level meeting.

• Updated information should be provided regarding testing in schools, vaccinations, wearing masks in school and the role of children in the pandemic (Box 2). The TAG will dive into identifying information about recommendations on these issues.
Box 2. Actions in schools

Young people’s voices on testing in schools
One of the young members to the TAG reflected on her experience regarding testing in schools. She highlighted that self-testing in schools is a great idea. Previously, children’s and adolescents’ recreational time was spent getting tested prior to school. Testing in schools reduces the amount of additional time children spend getting tested outside of school and should reduce the burden of pressure and stress in an already overburdened pandemic environment.

Experiences of mask-wearing in schools: United Kingdom (Scotland)
Masks are being raised as a big issue in Scotland in the context of exams and assessments. Young people have been fairly happy to wear masks and accept the need for them, but they are perceived as posing a problem in exam conditions.

- The TAG raised an issue around the unintended education consequences that arise from health recommendations. Long-term impacts should be considered and brought forward as a topic at the high-level meeting, with a particular focus on mental health and well-being, but also going beyond to reflect on the education and economic consequences in line with the presentation on long-term impacts of school closures. TAG members pointed out the cumulative impacts of the pandemic on all areas of children lives, highlighting, for example, the effects of the pandemic on child health services and consequent trickle-down effects in the education sector. Children’s learning and development will be affected if issues are not picked up and addressed.

- As a horizontal issue, TAG members agreed on the importance of addressing equity issues. Children with disabilities and their families have been overburdened during the pandemic and remote learning may be particularly challenging for these children.

- In the short term, the focus needs to remain on keeping schools open and helping children and families catch up. It is vital to highlight that the COVID-19 pandemic is not over, even when cases decline in summer. This needs to be brought forward by the TAG at the high-level meeting, with strategies for governments on how to act, particularly as not all teachers in the Region will have been vaccinated.

- TAG members highlighted the importance of the high-level meeting considering what types of support teachers will need given the numerous and intersecting challenges they are confronted with relating to students’ needs, their own well-being and stress, mitigation measures in place and ensuring their involvement in informing policy decisions that affect them directly. Proposals for schools on how to prepare further and the presentation of models of good practice should be considered.
• A key issue to be addressed is the involvement of young people in decision-making and policy-making. Children and young people have 15 months' important experience. Creative ways of including them in future planning are needed.

• A key discussion revolved around concentrating on solutions, not problems. The focus should move to capacity-building to allow identification of the positive experiences of school closures – experiences that should be taken into account when developing post-COVID schooling. One suggestion was to frame the problem and present a solution, without compromising the recommendations.

• A further proposition was to present country case studies at the high-level meeting. Countries should assess openly and critically the effectiveness of their measures from a governmental standpoint and from the perspectives of children, families and teachers. This could enhance countries' reflections on which measures have been most effective and least disruptive. Experiences could be shared among countries to help them prepare strategies for October, when cases are expected to rise again. One TAG member suggested that the case studies should focus on the education sector, which has received less attention than the infection control and health sectors.

• The TAG moved into a discussion on reviewing and implementing the standing recommendations. Concern was expressed on how take-up of the recommendations can be increased, and the importance of efforts to enhance, and the essential need for, cross-sectoral collaboration and cross-cutting policies for recovery was emphasized. TAG members are encouraged to review the standing recommendations at the sixth TAG meeting, where existing key issues will be discussed and new key issues identified.

• Moving forward, it was proposed that a draft concept paper be circulated for members’ comments on scoping of new priorities. This could be particularly helpful, as it is difficult to adopt a regional approach. Advice needs to be tailored depending on the epidemiological situation.
Main messages

- Guidance on summer camps will be essential.
- Education systems need to prepare and rebuild to react to changing needs that arise from the closure, full and partial, of schools. Vulnerable children and equity issues need to be considered.
- Arising issues, such as school case investigations, testing of vaccinated people and closure of schools, will be significant issues over coming weeks.
- A potential economic crisis following the pandemic could lead to decreasing levels of investment in health and education.
- It is important that country cases and experience with PHSM are shared at the high-level meeting to enable countries to learn from, and reflect on, past experiences to prepare for autumn and winter 2021.
- Subgroups will be convened to update the recommendations to be discussed at the sixth TAG meeting.

The way forward

Antony Morgan concluded the discussion by reassuring the TAG that its work would be recognized, as it has contributed significantly to identifying a set of issues that all countries in the European Region should be addressing. He emphasized that the continued efforts of the TAG are needed, significant and impactful.
Summary of the sixth TAG meeting

The sixth TAG meeting revisited and revised the current recommendations.

Updates were presented to the TAG on several issues. The long disruption and closure of schools has led to learning losses among children and adolescents. The full scope of these is as yet undetermined, but emerging evidence suggest they are large.

Schools need to ensure the availability and proper maintenance of water and sanitation facilities, predominantly for personal hygiene in relation to COVID-19 and infection control. Countries in the Region are at different stages of their vaccination campaign rollouts. Evidence has emerged on the efficacy of vaccination in 12–15-year-olds, but there are several individual and population considerations to be taken into account when prioritizing children in the vaccination campaigns.

The TAG initiated its review of the eight key issues. Subgroups had convened prior to the meeting and presented their revisions. A detailed recommendations document will be finalized, endorsed by the TAG, and disseminated widely for impact in countries.

Opening

Natasha Azzopardi-Muscat (Director of the Division of Country Health Policies and Systems, WHO Regional Office for Europe) opened the TAG meeting. She expressed concerns about how quickly PHSM have been lifted in the Region and queried the implications for transmission of COVID-19 in children and in school settings. Despite increasing vaccination rates in the Region, some countries continue to lag in their campaign rollouts. Schooling in countries whose populations have not completely been vaccinated needs to be disrupted as infrequently as possible.
Schooling has been severely disrupted, and learning losses are large. She focused on how countries can prepare for autumn and winter to ensure children’s and adolescents’ well-being and safety and emphasized the importance of the TAG in developing a narrative that will support countries in doing so.

Antony Morgan (Chair of the Technical Advisory Group and Professor in Public Health, Glasgow Caledonian University, United Kingdom) thanked everyone for joining the sixth TAG meeting. He explained the purpose of the meeting, which was to provide strategic and technical advice on schooling during COVID-19, offer recommendations to the Regional Office and inform policy decisions. The purpose of the TAG is not to provide guidelines, but to develop recommendations based on evidence. Eight recommendations have been ratified, providing a framework for the Regional Office for dealing directly and indirectly with COVID-19 in schools in the immediate and longer terms.

The purpose of the sixth TAG meeting was to:

- decide on what to take forward to the high-level meeting to keep young people safe and well; and
- review the recommendations through the work of individual subgroups that had convened prior to the meeting.

The purpose of the high-level meeting will be to:

- maximize awareness of recommendations made by the TAG and support opportunities to implement them;
- create media awareness of the recommendations; and
- consider country examples that contextualize the recommendations for implementation by Member States.

He asked for the submission of declarations of interest in case of changes.

Learning loss

Maya Prince (United Nations Educational, Scientific and Cultural Organization (UNESCO)) explained that schooling has been disrupted by an average of 30 weeks (counting both complete and partial closures), which is equivalent to seven months of schooling spanning two academic years. Since September, efforts have been high to minimize disruption to schooling by keeping schools open as much as possible, and this has been applied consistently across the Region.
Learning loss is one of the impacts of school closures, which also include disengagement with, or dropout from, school, reduced (or cessation of) social services provided by schools, narrowed/flattened education, and increased burdens on families, especially on women. The more prolonged the school closures, the higher is the risk of disengagement or dropout and non-return of children in the succeeding school year. Missing out on social services provided by schools, including counseling, provision of a safe environment, health care and nutritious meals, also negatively impacts students’ mental and physical well-being.

Learning losses reflect both an absolute reduction in learning levels and less progress than would have been expected in a typical school year. Six approaches to estimating learning losses have been identified:

- seeing learning as a function of progress based on prior attainment and historic rates of progress for similar pupils;
- calculating learning loss or gains based on standardized testing or assessments;
- applying learning-adjusted years of schooling;
- calculating expected future earnings or changes to GDP;
- estimating learning loss as a function of the years of schooling lost;
- making estimates relative to existing global thresholds, such as minimum reading proficiency or Programme for International Student Assessment (PISA) scores; and
- drawing analogies with previous disruptions, summer learning losses and absenteeism.

She highlighted several limitations of approaches to measuring learning loss. Insufficient knowledge about the effectiveness of remote learning possibilities inhibits a correct estimation of substitution measures. Inequality in access to remote learning poses additional problems in estimating accurately the learning loss of children who have experienced school closures. These measures also focus narrowly on academic achievement and do not take into account losses related to skills, psychology and language that children may experience while staying out of school. This may, on the one hand, exacerbate inequalities for children who speak minority languages at home while, on the other, neglect other areas of skills development, such as those related to collaboration or communication, that should be taken into account when returning to schools.
Mitigation measures for learning losses range from online platforms to adjustments to school calendars, remedial and accelerated learning programmes, changes to the curriculum and the use of assessments, adjustments to examinations and support for teachers and families. The results from a joint survey on these various mitigation efforts conducted by UNESCO, the United Nations Children’s Fund (UNICEF), the World Bank and the Organisation for Economic Co-operation and Development (OECD) will be presented during the high-level meeting in July.

School environments: WASH in schools and indoor ventilation

Oliver Schmoll (Programme Manager, Water and Climate, WHO European Centre for Environment and Health) presented on WASH (water, sanitation and hygiene) in schools.

Water is essential for providing basic services in schools – hydration, personal hygiene, cleaning and food preparation. The presentation focused on hand hygiene and access to sanitation facilities, as these are most relevant to the TAG and have been reflected in key issues 3 and 6.

Schools need to ensure the necessary infrastructure and availability of consumables for hand hygiene while promoting handwashing through good practices and so-called nudging. This means soap and water being available at handwashing stations that are age-appropriate, sufficient in number and sited at critical locations. Hygienic means for drying hands (one-use paper towels or cotton rounds) should be available, and frequent and thorough handwashing for at least 20 seconds should be encouraged. Hand hygiene practices should be incorporated within health education and other subjects, and a culture of hand hygiene should be created among students and staff, supported by adequate school policies.

In relation to the statement on excessive hand hygiene practices in key issue 3, he suggested reformulation in a positive way so that the document encourages/promotes appropriate behaviour instead of using a vague term (“excessive”). It could read, for example: “Handwashing in the school is recommended after entering the school building, after sneezing or cleaning the nose, after using the toilet, before eating (during the break or at lunch) and after playing”.

He emphasized the importance of access to sanitation facilities and their maintenance in schools. Schools need to ensure adequate, clean and separate toilets for girls and boys. Pupils should be able to access sanitation facilities and drinking foun-
tains during the entire school day. Crowding or waiting lines when accessing water and sanitation facilities may limit the feasibility of physical distancing. School policies should counteract the limitations through adaptations such as allowing more and staggered breaks for different classes and supervising sanitation areas to limit the number of pupils. Water and sanitation facilities need effective operation and maintenance, including cleaning and disinfection at least daily. Schools should also ensure the installation, supervision and regular refilling of WASH consumables and develop a scheduled plan that defines roles, tasks and requirements. This calls for schools to have adequate budgets to meet expenses in relation to sanitation and water facilities.

The reference manual Improving health and learning through better water, sanitation and hygiene in schools, developed by the Regional Office in cooperation with UNICEF and UNESCO, provides an information package for school staff and teachers on how they can improve WASH measures and practices in schools.

Dorota Jarosińska (Programme Manager, Living and Working Environments, WHO European Centre for Environment and Health) presented on other aspects of environment in relation to schools. She referred to an assessment performed in 2015 on indoor air quality in schools across the WHO European Region, from which further work emerged. A tool published in June 2021 enables assessment of the risk of adolescent exposure to chemicals inside schools. From this, future work will focus on creating a checklist of the main risk-reduction measures to be taken. In relation to COVID-19, WHO has published advice on indoor air ventilation that may be adopted by schools.

COVID-19 vaccination in children

Siddhartha Datta (Regional Advisor, Vaccine-preventable Diseases and Immunization, WHO Regional Office for Europe) presented on considerations for COVID-19 vaccinations of children and adolescents. There are stark differences in COVID-19 vaccine rollout by country income classification in the Region. High-income countries have reached, on average, much higher population coverage, principally among people over 60 years, compared with lower-income countries. A sharp decline in cases and mortality has been observed concurrently with vaccination rollout.

Children have certain comorbidities that put them at significant risk of severe disease. In rare cases, children and adolescents develop severe hyperinflammation syndrome occurring 2–6 weeks after acute SARS-CoV-2 infection. With increasing cumulative vaccination rates in older people, adolescents may represent an increasing proportion of recent COVID-19 cases.

Evidence from a recent study performed in an adolescent population aged 12–15 years (N = 2260) with the Pfizer/BioNTech vaccine shows 100% efficacy against symptomatic, laboratory-confirmed COVID-19. No hospitalizations due to COVID-19 or cases of MIS-C were reported by trial participants. Severe reactions were more common in vaccine recipients, while local and systemic reactions within seven days occurred in 91%. Schools should be prepared for children to present with these types of symptoms post-injection (different elements should be kept in mind while the TAG looks into its recommendations) and possible related absenteeism.

The Strategic Advisory Group of Experts on immunization (SAGE) on COVID-19 vaccination of adolescents has reviewed the benefits and risks at individual and population levels that need to be taken into account when including children in national COVID-19 immunization campaigns. At individual level, the risks of serious adverse events following vaccinations for children need to be reviewed closely. Data on safety are limited and the balance of benefits and harms is highly context-specific. At population level, including children in the vaccination strategy may not be feasible at this point in time for some countries in the Region that have difficulties vaccinating their health workforce. Pfizer/BioNTech can be used in children with comorbidities that put them at significantly higher risk of serious COVID-19 diseases, but the continuous implementation of PHSM is essential to facilitate children’s participation in education and other aspects of social life. Currently, there are no efficacy or safety data for children under 12 years of age.

Citing a recommendation from the European Technical Advisory Group of Experts on Immunization (ETAGE), he concluded that teachers and school staff should be a high priority in vaccination campaigns. This can be considered as one impact capsule: considering the decreasing risk of transmission from adolescent pupils to adult teachers.
Discussion on key issues

The TAG moved on to discussing the key issues. Subgroups on each key issue had convened prior to the meeting to review the recommendations and suggest changes in the light of emerging evidence. The changes have been proposed to the Regional Office. All subgroups amended the recommendations as new evidence emerged or recommendations were specified. A detailed recommendations document will be finalized, endorsed by the TAG and disseminated widely for impact in countries.

Main messages

- Vaccinations are the most controversial topic. The question of vaccinating children from the age of 12 remains a highly discussed issue within countries.

- The value of 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.

- Currently, the very limited evidence neither supports keeping nor lifting PHSM in school environments.

- It is critical to address learning loss and recovery, and ensure that teachers are supported adequately and enabled to support all learners in the recovery process.

- Children’s and adolescent’s involvement in decision-making needs to be strengthened.
The way forward

Antony Morgan thanked everyone for their contributions and time invested.

Natasha Azzopardi Muscat thanked everyone for the important discussion. The next appointment will be the high-level meeting on 2 July, but it will be necessary to continue the work towards the end of summer and beginning of autumn, as the TAG plays a valuable role in the lives of children and adolescents. A suggestion would be to take stock one year after the first meeting to look back, review and update dynamic and moving areas.
### Annex 1

**Programmes**

#### 5th TAG meeting on Schooling in the Time of COVID-19 in 2021

**21 May 2021, 10:00-12:00 CET**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Presenter and Collaborators</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00-10:10</td>
<td>Opening the meeting and setting the scene</td>
<td>Antony Morgan, TAG chair&lt;br&gt;Natasha Azzopardi Muscat&lt;br&gt;Director Country Health Policies and Systems</td>
</tr>
<tr>
<td>10:10 – 10:20</td>
<td>Young people’s voices</td>
<td>To be confirmed</td>
</tr>
<tr>
<td>10:20 – 10:30</td>
<td>General update on status of school opening and mask wearing Q&amp;A</td>
<td>Kayla King, WHO EURO</td>
</tr>
<tr>
<td>10:30 – 10:40</td>
<td>Vaccination roll out and impact on schooling – case study from Israel Q&amp;A</td>
<td>Efrat Aflalo, in collaboration with Kayla King</td>
</tr>
<tr>
<td>10:40 – 10:50</td>
<td>Children and long COVID Q&amp;A</td>
<td>Florian Gotzinger</td>
</tr>
<tr>
<td>10:50 – 11:00</td>
<td>Update from ECDC Q&amp;A</td>
<td>Jonathan Suk, ECDC</td>
</tr>
<tr>
<td>11:00 – 11:10</td>
<td>Schooling and COVID-19, long term impact on children and adolescents – modelling approaches</td>
<td>Vivien Huelsen and Kayla King</td>
</tr>
<tr>
<td>11:10 – 11:55</td>
<td>Discussion and next steps towards TAG 6 and high level meeting on 2nd July 2021</td>
<td>Antony Morgan</td>
</tr>
<tr>
<td>11:55 – 12:00</td>
<td>Closure of the meeting</td>
<td>Natasha Azzopardi Muscat, Director Country Health Policies and Systems</td>
</tr>
</tbody>
</table>
6th TAG meeting on Schooling during COVID-19 pandemic

8 June 2021, 10:00-12:00 CET

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00-10:10</td>
<td>Opening the meeting and setting the scene</td>
<td>Antony Morgan, TAG chair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Natasha Azzopardi Muscat, Director Country Health Policies and Systems</td>
</tr>
<tr>
<td>10:10-10:20</td>
<td>UNESCO update</td>
<td>Presenter TBC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UNESCO</td>
</tr>
<tr>
<td>10:20-10:30</td>
<td>Update on school environment issues (indoor air, safe water, etc.)</td>
<td>Oliver Schmoll, Dorota Jarosinska, WHO EURO</td>
</tr>
<tr>
<td>10:30-10:40</td>
<td>Considerations for COVID-19 vaccination of children and adolescents.</td>
<td>Siddhartha Datta, WHO EURO</td>
</tr>
<tr>
<td>10:40-11:00</td>
<td>Feedback from TAG subgroups on key issues (2 min per group, 8 groups)</td>
<td>Antony Morgan, Tag Chair</td>
</tr>
<tr>
<td>11:00-11:55</td>
<td>Discussion and next steps towards TAG 6 and high level meeting on 2nd July 2021</td>
<td>Antony Morgan, Tag Chair</td>
</tr>
<tr>
<td>11:55-12:00</td>
<td>Closure of the meeting</td>
<td>Natasha Azzopardi Muscat, Director Country Health Policies and Systems</td>
</tr>
</tbody>
</table>
Annex 2
List of Participants

Fifth Technical Advisory Group meeting on Schooling during the COVID-19 pandemic

Temporary Advisers (Members of the TAG)

**Antony Morgan**
TAG Chair
Glasgow Caledonian University
GCU School of Health and Life Sciences
London
United Kingdom

**Bruce Adamson**
Children and Young People’s Commissioner Scotland
Edinburgh
Scotland

**Efrat Aflalo**
Ministry of Health
Israel

**Freia de Bock**
German Federal Agency of Health Promotion
Head of Department Effectiveness and Efficiency of Health Education
Germany

**Chris Bonell**
Public Health Sociology University College London
London School of Hygiene and Tropical Medicine
London
United Kingdom

**David Edwards**
General Secretary
Education International
Brussels
Belgium
Florian Gotzinger
Consultant for Paediatric Infectious Diseases and Immunology
Programme director for Paediatric Infectious Diseases
Vienna Healthcare Group
Klinik Ottakring
Austria

Walter Haas
Head of respiratory infections
Robert Koch Institute
Berlin
Germany

Adamos Hadjipanayis*
President
European Academy of Paediatrics
European University Cyprus
Nicosia
Cyprus

Mark Jit*
London School of Hygiene and tropical medicine
Department of Infectious Disease Epidemiology
Colette Kelly
Director Health Promotion Research Centre (HPRC) NUI Galway
Galway, Ireland, UK

Didier Jourdan
Head of the UNESCO chair health and education
Paris, France

Colette Kelly
School of Health Sciences, College of Medicine
Health Promotion Research Centre (HPRC) NUI
Galway, Ireland, UK

Olga Komarova*
Scientific Centre of Children Health
Moscow
Russian Federation
Shamez Ladhani*
Immunisation, Hepatitis, and Blood Safety department
Public Health England
London
United Kingdom

Pierre-Andre Michaud*
Adolescent Health
Lausanne University
Lausanne
Switzerland

Leyla Namazova-Baranova
European paediatric association, EPA/UNEPSA
Moscow
Russian Federation

Catherine Naughton
Director
European Disability Forum

Leena Paakkari
Research Center for Health Promotion
University of Jyväskylä
Finland

Peter Paulus*
Leuphana University
Luneburg
Germany

Ivana Pavic*
Deputy Director
Croatian Institute of Public Health
Zagreb
Croatia

Eva Rehfueß*
Chair for Public Health and Health Services Research
Institute for Medical Information Processing, Biometry and Epidemiology
Ludwig-Maximilians University
Munich
Germany
Sergey Sargsyan
Chief Paediatrician
Yerevan
Armenia

Anette Schulz
Coordinator Schools for Health in Europe (SHE) Network
University College South Denmark
Research Centre for Health Promotion
Haderslev
Denmark

Eileen Scott
Health Intelligence Principal
Public Health Scotland
Edinburgh
Scotland, United Kingdom

Anders Tegnell*
Chief Epidemiologist
Public Health Agency of Sweden
Stockholm

Russell Viner
President
Royal College of Paediatrics and Child Health (RCPCH)
London
United Kingdom

Susanne Stronski
Consultant school paediatrician, Bern (SWI)
Master of Public Health
Independent Consultant
Child, Adolescent and School Health
Switzerland

Youth Representatives

Emilia Carai*
Copenhagen International School
Denmark
Malika Nakisbekova  
International School Miras  
Almaty  
Kazakhstan

Frida B. Rasmussen  
Birkerød Gymnasium  
Denmark

UN Agencies and Partners

UNESCO

Christopher Castle  
Chief  
Section of Health and Education  
Division for Inclusion Peace and Sustainable Development Education Sector  
Paris, France

Christophe Cornu*  
Team Leader  
Section of Health and Education Division for Peace and Sustainable Development Education Sector  
Paris, France

Tigran Yepoyan  
Regional advisor for health and Education, Eastern Europe & Central

UNICEF

Basil Rodriques*  
Regional advisor Child health UNICEF EECA  
Geneva  
Switzerland

Malin Elisson  
Senior Advisor of Education  
UNICEF Regional Office for Europe and Central Asia

Nina Ferencic*  
Regional advisor Adolescent health  
UNICEF Geneva, Switzerland
Bobby Soobrayan
Regional Education Adviser for Europe and Central Asia at UNICEF’s Regional Office

Council of Europe

Maren Lambrecht-Feigl*
Programme Officer
Children’s Rights Division
Directorate General of Democracy (DG II)

Anna Bracco*
Policy Officer
Children’s Rights Division
Directorate General of Democracy (DG II)

ECDC

Jonathan Suk
Senior Expert Public Health Emergency Preparedness
European Centre for Disease Control (ECDC)
Stockholm, Sweden

Charlotte Deogan
Scientific Officer Coronavirus and Influenza

Observers

Yafit Itzhaky
Ministry of Health
Israel

Pim Cuijpers
Co-Chair, Mental health TAG
Head of the Department of Clinical Neuro and Developmental Psychology at the Vrije Universiteit Amsterdam The Netherlands

Adam Finn*
Chair of the International Technical Advisory group of Experts
Head, Academic Unit of Child Health
University of Bristol UK
World Health Organization

Headquarters

Valentina Baltag
Scientist
Adolescent and Young Adult Health

Susanne Lehtimaki
Consultant

Regional Office for Europe
Natasha Azzopardi Muscat
Director
Division of Country Health Policies and Systems

Martin Weber
Programme manager
Child and Adolescent Health and Development

Vivian Barnekow
Consultant
Child and Adolescent Health and Development

Kayla King
Consultant
Country Health Emergency Preparedness & IHR

Ihor Perehinets
Technical Adviser
Health Systems and Public Health

Govin Permanand
Health Policy Analyst
Tanja Schmidt
Technical officer
Country Health Emergency Preparedness & IHR

Sara Darias
Consultant
Venice office
Olga Pettersson
Programme assistant
Child and Adolescent Health and Development

* Unable to attend.
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.

**Member States**

Albania  
Andorra  
Armenia  
Austria  
Azerbaijan  
Belarus  
Belgium  
Bosnia and Herzegovina  
Bulgaria  
Croatia  
Cyprus  
Czechia  
Denmark  
Estonia  
Finland  
France  
Georgia  
Germany  
Greece  
Hungary  
Iceland  
Ireland  
Israel  
Italy  
Kazakhstan  
Kyrgyzstan  
Latvia  
Lithuania  
Luxembourg  
Malta  
Monaco  
Montenegro  
Netherlands  
North Macedonia  
Norway  
Poland  
Portugal  
Republic of Moldova  
Romania  
Russian Federation  
San Marino  
Serbia  
Slovakia  
Slovenia  
Spain  
Sweden  
Switzerland  
Tajikistan  
Turkey  
Turkmenistan  
Ukraine  
United Kingdom  
Uzbekistan

WHO/EURO:2021-2790-42548-59131

World Health Organization  
Regional Office for Europe  
UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark  
Tel.: +45 45 33 70 00 Fax: +45 45 33 70 01  
Email: eurocontact@who.int  
Website: www.euro.who.int