Memo on the minimum age for the application of mask wearing

Background
The Expert Advisory Group (EAG) has discussed the question “Should the minimum age for the application of mask wearing requirements and recommendations be reduced?” on three occasions between February and August 2021. In their consideration a mask was defined as “A face covering is a covering of any type which covers your nose and mouth with no visible gaps.” The most recent review recommended that, in consideration of the harm-benefit ratio, the minimum age for mask wearing should remain unchanged. Ongoing monitoring was advised with respect to the epidemiological situation in children and the effectiveness of existing risk mitigations measures in place in primary schools.

Current guidance
Children over 13 are required to follow the advice for adults around face coverings, with all secondary school students required to wear a mask (1). Children under 13 may be asked to wear a mask when attending hospital clinic or GP surgery and may choose to wear a mask in other setting, however, mask-wearing is not recommended in the primary school setting. Public health messaging has focused on advising those with symptoms not to attend school, and to undergo PCR testing, in addition to the emphasising the importance of other risk mitigation measures.

Epidemiological situation
As of 23 November, the 14-day incidence is 1287.6 per 100,000, of which 17.2% of cases were in those aged 5 to 12 years. While incidence has risen across all age groups, it is highest in those aged 5-12 years. This is driven by very high levels of infection in adults, and primarily through household and community transmission, along with the fact that children under 12 are not yet protected through vaccination. A consequence of the latter is that as an increasing number of those over 12 are vaccinated, those age 12 years and under will account for a larger proportion of cases.

Testing rates in those aged 12 and under are very high, at approximately 750 tests per 100,000 people per day, representing testing of 5% of the population every week. As such, case ascertainment in these age groups is likely to be higher compared to adolescent and adult age groups which have lower testing rates. Between weeks 26 and 46, there were 367 outbreaks reported in schools, with 24 in week 46.

Severe health outcomes amongst children are uncommon. Children aged 5-12 years have the lowest probability of hospitalisation of all age groups, at 2-3 admissions per 1000 cases. Due to increased force of infection, hospitalisations are rising in older adults as the incidence rises. To date hospitalisations in children remain very low, and while an increase in the absolute number of admissions may be seen, the rate/risk of admission is very low, with the situation being closely monitored. This reflects the international experience (2). Evidence in relation to long covid remains uncertain, with data from the UK ZOE COVID symptom study app reporting symptoms persisting beyond 4 weeks from COVID diagnosis in 4.4% of 1,734 5-17 year olds, and 1.8% of 1,379 children beyond 8 weeks (3).

International guidance and evidence
Current guidance does not present a consensus, with the exception that mask wearing should not apply to those under the age of two years. The ECDC does not recommend the use of face masks in primary schools, as students may have “a lower tolerance to wearing masks for extended periods of time, and may fail to use the masks properly”, and instead emphasise the need for other risk-mitigation measures (4).
The WHO recommends that those age 12 and over should wear a mask under the same conditions as adults including “indoor spaces where people are together for long periods of time” and additionally recommends a risk-based approach for those aged 6-11 based on consideration of:

- Community transmission levels, ability to maintain physical distancing and ventilation;
- Intensity of transmission and data/evidence on the risk of infection and transmission in this age group;
- Social and cultural environment including behaviour or social norms that influence the community and population's social interactions, especially with and among children;
- The child’s capacity to comply with the appropriate use of masks and availability of appropriate adult supervision;
- Potential impact of mask wearing on learning and psychosocial development; and
- Adapting advice for specific settings such as households with elderly relatives, schools, during sport activities or for children with disabilities or with underlying diseases.

The WHO also recommend engaging children in the decision; adapting any recommendation or requirement to class level in school (rather than age); providing masks free of charge to children in socially vulnerable households or geographic areas; consideration of maintaining a supply in schools; ensuring appropriate care of masks and no exclusion of students on the basis of no masks due to low resources or unavailability (5).

Conversely, the CDC recommends the use of masks in those age 2 year and older, regardless of vaccination status, however in practice individual states have varying approaches (6).

In terms of the evidence relating to COVID-19 transmission and children, studies have shown that schools are not a driver of infection, with a lower odds of infection in educational settings compared to community and household settings (7, 8, 9, 10).

Studies directly evaluating the isolated effectiveness of mask wearing in children are limited. A small number of studies found that mask mandates in schools have been associated with lower incidence of SARS-CoV-2 infection, however, as other NPIs were often in place, it is difficult to determine the independent impact of mask wearing. A study of 169 Georgia elementary schools compared those with a mask wearing requirement to those where it was optional, reported a 21% lower 7-day incidence rate in students required to wear masks, noting that the difference was not statistically significant (OR 0.79, 95% CI 0.50, 1.08) (11). An outbreak analysis of 351 cases in 7 to 19 year olds linked to an overnight camp, also in Georgia, reported a reduced risk of secondary household contacts, with masking of the index cases on univariate analysis (OR 0.2; 95% CI 0.1, 0.6). However, this result was not significant in multivariate analysis (aOR 0.5; 95% CI 0.2, 1.3) (12). A recent systematic review and meta-analysis of 30 studies reported a 53% reduction in the incidence of COVID with mask wearing, noting that this study was in adults (13).

International practice is highly variable. An assessment of EU/EEA countries, Australia, Canada, New Zealand, Switzerland, UK, and USA identified:

- 5 countries (England, Denmark, Norway, Sweden and Switzerland) with no mask requirement
- 7 countries recommended or required masks in those under 6 (Canada, Croatia, Greece, Malta, Poland, Romania, USA)
- 16 countries recommended or required masks in those aged 6 to 11 years (Austria, Bulgaria, Czech Republic, France, Germany¹, Hungary, Italy, Latvia, Lithuania, Luxembourg, New Zealand², Portugal, Slovakia, Slovenia, Spain, Wales)
- The remaining 9 countries recommended or required masks in those aged 12 years or over (Australia¹, Belgium, Cyprus, Estonia, Finland, Iceland, Ireland, Lichtenstein, Netherlands)

International experience suggests masks are well tolerated in older primary school children.

The potential benefits discussed considered:
- Reduction in transmission of COVID-19 (or other respiratory infections) to children
- Overall reduction in transmission of COVID-19, which also benefits children
- Avoid health effects of COVID-19
- Avoid need to isolate/restrict movements (school attendance)
- Reduced case numbers and burden of morbidity and mortality

The potential harms discussed considered:
- Potential issues relating to anxiety or stigmatising of those exempt from mask wearing
- Possible reduced tolerance to wearing mask for long duration
- Possible increased difficulties with caring for mask and increased touching of face
- Challenges with small soft ears, glasses and elastic for face coverings
- Potential challenge for those from socioeconomically vulnerable area or household in obtaining or caring for masks

For discussion:
- Consideration of a reduction in the minimum age recommendation for mask wearing with exemptions as appropriate, as a temporary, interim measure, recognising the potential rollout of the vaccination programme in the 5 to 11 year old age group
- Consideration of paediatric mask availability, and potential provision for those from lower socioeconomic backgrounds
- Guidance should continue to emphasise the importance of other mitigation measures

¹ Different states have different recommendations/requirements, with a recent move to lifting of mask wearing requirement/recommendation
² Depends on alert level – only applies to certain geographic areas
References
2. Duarte-Salles et al. 30-day outcomes of children and adolescents with COVID-19: an international experience. 28 May 2021 Pediatrics https://pediatrics.aappublications.org/content/early/2021/05/28/peds.2020-042929
5. WHO. Mask use in the context of COVID-19. 1 December 2020
6. CDC. Guidance for COVID-19 Prevention in K-12 Schools. 5 November 2021
9. Varma et al. COVID-19 infections among students and staff in New York City public schools. 30 April 2021 Pediatrics https://pediatrics.aappublications.org/content/147/5/e2021050605
11. Gettings et al. Mask use and ventilation improvements to reduce COVID-19 incidence in elementary schools - Georgia, November 16-December 11, 2020. 21 May 2021 MMWR https://www.cdc.gov/mmwr/volumes/70/ww/mm7021e1.htm?s_cid=mm7021e1_w

References for mask wearing requirements/recommendations by country
Australia
Austria
Belgium
Bulgaria
Bulgaria travel advice https://coronavirus.bg/bg/merki/ogranichitelni-merki
Canada

Croatia

Cyprus

Czech Republic

Denmark

Estonia

Finland

France
https://www.gouvernement.fr/info-coronavirus/education

Germany
https://www.berlin.de/corona/en/measures/

Greece

Hungary
https://abouthungary.hu/news-in-brief/schools-will-open-on-september

Iceland
https://www.covid.is/sub-categories/iceland-s-response

Italy
https://firenze.repubblica.it/cronaca/2021/08/17/news/mascherine_ffp2_gratis_per_tutti_gli_studenti_italiani_che_vanno_a_scuola_con_i mezzi_pubblici-314356210/Florence, Italy

Latvia

Lithuania
https://koronastop.lrv.lt/en/

Liechtenstein
https://hebensorg.li/hygieneregeln
https://www.regierung.li/coronavirus

Luxembourg

Malta
https://timesofmalta.com/articles/view/masks-off.883351

Netherlands

New Zealand

Norway

Poland

Portugal

Romania
https://stirioficiale.ro/conduita

Slovakia

Slovenia

Spain
https://www.spth.gob.es/faq

Switzerland
https://www.swissinfo.ch/eng/covid-19--teachers-call-for-stricter-measures-for-new-school-year/46853472

UK
https://gov.wales/schools-coronavirus-guidance#section-59658

USA
https://ballotpedia.org/School_responses_to_the_coronavirus_(COVID-19)_pandemic_during_the_2021-2022_academic_year