

COVID-19, children and schools: overlooked and at risk

TO THE EDITOR: We read with interest the opinion piece from Hyde¹ regarding school opening during the coronavirus disease 2019 (COVID-19) pandemic. We have closely followed the international literature about severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) transmission dynamics in children (aged 0–18 years).² Evidence-informed discussion about school attendance in the context of COVID-19 is a high priority and this complex subject requires weighted expert review of the literature to accurately inform policy. As paediatricians and infectious diseases specialists, we wish to highlight important considerations when interpreting the available data.

Schools (closures as well as mitigation measures) have been a major part of the collective discourse in 2020, and to suggest they have been overlooked is erroneous. School closures were one of the earliest non-pharmaceutical interventions employed globally, leaving 1.6 billion children³ without the educational and social benefits they provide. Interest is intense among scientific and mass media in any

potentially relevant data, with many studies ongoing.

Interpretation of these studies requires understanding about differences between young children, adolescents and younger adults, as the evidence now suggests significantly lower risks of infection, severe disease and transmission for those aged under 10 years. The evidence from multiple household contact tracing studies which are unaffected by school closures demonstrate significantly lower secondary attack rates in younger children than in adults.⁴ This information has important implications in informing transmission risk.

Prior experience from influenza pandemics left many with strong beliefs regarding children's role in propagating community transmission, although evidence to date does not bear this out for SARS-CoV-2. Both direct and indirect evidence exist of a cursory role of younger children, which, although contrary to influenza, was similar for SARS and the Middle East respiratory syndrome (MERS).⁵

While this report highlights health risks to children, data so far suggest the opposite: England had four deaths in children aged under 15 years by 3 May

2020,⁶ compared with around 20 deaths from seasonal influenza annually in the same age group.

The discussion on schools is complex, demanding nuanced and balanced scientific and media coverage that considers not only epidemiological questions but also public health, educational, developmental, wellbeing, and social equity concerns.^{3,7} Any contribution must be weighed against the immense long term costs of school closures, especially for younger children and the disadvantaged.

Alasdair Munro^{1,2} 
Asha C Bowen^{3,4} 
Muge Cevik^{5,6}

1 National Institute of Health Research Clinical Research Facility, University Hospital Southampton, NHS Foundation Trust, Southampton, United Kingdom.

2 University of Southampton, Southampton, United Kingdom.

3 Perth Children's Hospital, Perth, WA.

4 Wesfarmers Centre for Vaccines and Infectious Diseases, Telethon Kids Institute, Perth, WA.

5 Royal Infirmary of Edinburgh, Edinburgh, United Kingdom.

6 University of St Andrews, St Andrews, Fife, United Kingdom.

a.munro@doctors.org.uk

Competing interests: No relevant disclosures. ■

doi: 10.5694/mja2.50933

© 2021 AMPCo Pty Ltd

References are available online.

- 1 Hyde Z. COVID-19, children and schools: overlooked and at risk. *Med J Aust* 2020; 213: 444–446. <https://www.mja.com.au/journal/2020/213/10/covid-19-children-and-schools-overlooked-and-risk>
- 2 Faust SN, Munro APS. It's time to put children and young people first during the global COVID-19 pandemic 2020. *JAMA Pediatr* 2020; <https://doi.org/10.1001/jamapediatrics.2020.4582>. [Epub ahead of print].
- 3 United Nations. Policy brief: education during COVID-19 and beyond;. August 2020. https://www.un.org/sites/un2.un.org/files/sg_policy_brief_covid-19_and_education_august_2020.pdf (viewed Jan 2021).
- 4 Goldstein E, Lipsitch M, Cevik M. On the effect of age on the transmission of SARS-CoV-2 in households, schools and the community. *J Infect Dis* 2020; jiaa691.
- 5 Stockman LJ, Massoudi MS, Helfand R, et al. Severe acute respiratory syndrome in children. *Pediatr Infect Dis J* 2007; 26: 68–74.
- 6 Ladhani SN, Amin-Chowdhury Z, Davies HG, et al. COVID-19 in children: analysis of the first pandemic peak in England. *Arch Dis Child* 2020; 105: 1180–1185.
- 7 Levinson M, Cevik M, Lipsitch M. Reopening primary schools during the pandemic. *N Engl J Med* 2020; 383: 981–985. ■