



LONG COVID IN CHILDREN

Vaccinating children to prevent long covid? More caution is needed in interpreting current epidemiological data

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We are used to supporting children with chronic illness and have followed closely concerns raised by Simpson and Lokugamage regarding long covid in children.^{1,2} Media reports following the All Party Parliamentary Group on Coronavirus meeting on schools^{3,4} stated that “scientists called for reconsideration of covid-19 vaccinations for children” because of fears regarding the prevalence of the condition.⁵ The Office for National Statistics (ONS) prevalence of 12.9% (primary school age) and 15% (secondary school age) of long covid are widely quoted. So how much should parents and their children worry, and does this worry warrant vaccination?

The ONS figures⁶ need context. Our understanding is that they represent the proportion of children who—within five weeks of a positive covid-19 test—have one of the following symptoms: fatigue, cough, headache, loss of taste or smell, myalgia, sore throat, fever, shortness of breath, nausea or vomiting, diarrhoea, or abdominal pain. For some of these symptoms the ONS reported prevalence is as follows: fatigue 3.5%; cough 4%; headache 5.3%; loss of taste or smell 2%; myalgia 1.7%. These seem in line with or lower than the population prevalence—for example, cough reported in an unselected cohort of 7670 children aged 1-18,⁷ or headache and fatigue in children from a representative Finnish cohort.⁸ Given current high levels of family and community stress we would expect the prevalence of some of these symptoms to be higher.

The prevalence estimates being discussed need a comparator group, and to be interpreted with much more caution, especially given the lack of a dedicated case definition for children.⁹ Specifically, we need to know how many survey participants (by age) without covid-19 had similar symptoms. In the meantime—especially while there are no safety data in children—we endorse the Royal College of Paediatrics and Child Health’s sensible position on covid-19 vaccination.¹⁰

Competing interests: None declared.

Full response at: www.bmj.com/content/372/bmj.n157/rr.

¹ Simpson FK, Lokugamage AU. The elephant and the blind men: the children of long covid. *BMJ* 2021;372:n157. doi: 10.1136/bmj.n157 pmid: 33468452

² Simpson F, Lokugamage A. Counting long covid in children. *BMJ* Opinion. 2020. <https://blogs.bmj.com/bmj/2020/10/16/counting-long-covid-in-children>.

³ About us. March for Change. www.marchforchange.uk/about_us.

⁴ All-Party Group on Coronavirus. Call for evidence. <https://appgcoronavirus.marchforchange.uk>.

⁵ Matthews S, Davies J. Scientists say children should be vaccinated against coronavirus and schools are not “magical places where the virus doesn’t spread” as SAGE warns March is too early to consider sending kids back. Daily Mail Online. 2 February 2021. www.dailymail.co.uk/news/article-9215089/Scientists-say-CHILDREN-vaccinated-against-coronavirus.html.

⁶ Office for National Statistics. Updated estimates of the prevalence of long covid symptoms. 21 January 2021. www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/adhocs/12788updatedestimatesoftheprevalenceoflongcovidssymptoms.

⁷ Jurca M, Ramette A, Dogaru CM, et al. Prevalence of cough throughout childhood: A cohort study. *PLoS One* 2017;12:e0177485. doi: 10.1371/journal.pone.0177485 pmid: 28542270

⁸ Luntamo T, Sourander A, Santalahti P, Aromaa M, Helenius H. Prevalence changes of pain, sleep problems and fatigue among 8-year-old children: years 1989, 1999, and 2005. *J Pediatr Psychol* 2012;37:307-18. doi: 10.1093/jpepsy/jsr091 pmid: 22080455

⁹ National Institute for Health and Care Excellence. Covid-19 rapid guideline: managing the long-term effects of covid-19. 2020. www.nice.org.uk/guidance/ng188/chapter/1-Identifying-people-with-ongoing-symptomatic-COVID-19-or-post-COVID-19-syndrome.

¹⁰ Royal College of Paediatrics and Child Health. Coronavirus vaccination programme: statement. www.rcpch.ac.uk/resources/coronavirus-vaccination-programme-statement.

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