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Children and young people remain at low risk of COVID-19 mortality

Since early reports from China stated that severe COVID-19 disease was rare in children,1 we have analysed child COVID-19 mortality in seven countries. To put the deaths into a context that would help the understanding of parents, clinicians, and policy makers, we previously made comparisons of COVID-19 deaths with modelled mortality from all causes and other causes. Our first publication in April, 2020,2 was followed by a trend analysis up to August, 2020.3 We also update a data table online. Here, we update this analysis to February, 2021, in light of increases in adult mortality through the 2020-21 winter, and concerns about variant B.1.1.7, first identified in the UK in December, 2020 (probably circulating since September).4

In the USA, UK, Italy, Germany, Spain, France, and South Korea, deaths from COVID-19 in children remained rare up to February, 2021, at 0.17 per 100 000 population, comprising 0.48% of the estimated total mortality from all causes in a normal year (table, appendix p 2). Deaths from COVID-19 were relatively more frequent in older children compared with younger age groups. The differences between countries need careful interpretation because of small numbers, possible differences in case definition and death reporting mechanisms, and the related condition paediatric inflammatory multisystem syndrome temporally associated with COVID-19, which might not always be captured in these data. Overall, there was no clear evidence of a trend of increasing mortality throughout the period up to February, 2021, but additional deaths have clearly occurred in children and young people during periods of high community transmission (appendix p 3).

Although COVID-19 mortality data are contemporary and likely to

	Population	All-cause deaths*		COVID-19 deaths†		COVID-19 deaths as percentage of all-cause deaths, %
		n	per 100 000	n	per 100 000	
USA						
0-4 years	19810275	23 844	120-36	67	0.34	0.28%
5–14 years	41 075 169	4990	12.15	67	0.16	1.34%
UK						
0-9 years	8 052 552	3793	47.10	7	0.09	0.19%
10–19 years	7528144	1109	14.73	22	0.29	1.98%
Italy						
0-9 years	5 090 482	1569	30.83	8	0.16	0.51%
10–19 years	5768874	772	13.38	10	0.17	1.30%
Germany						
0–9 years	7588635	2782	36.66	9	0.12	0.32%
10–19 years	7705657	1249	16-21	4	0.05	0.32%
Spain						
0-9 years	4370858	1369	31.31	8	0.18	0.58%
10–19 years	4883447	532	10.89	18	0.37	3.39%
France						
0-9 years	7755755	2916	37-60	7	0.09	0.24%
10–19 years	8328988	1068	12.82	4	0.05	0-38%
South Korea						
0-9 years	4148654	1519	36-61	0	0.00	0
10–19 years	4940455	814	16.48	0	0.00	0
Total	137 047 945	48326	35.26	231	0.17	0.48%

The sources of these data are provided in the appendix (p 2). *Includes all deaths from approximately March 1, 2020, to Feb 1, 2021. †Includes all COVID-19 deaths reported from the start of the pandemic up to Feb 3, 2021 (USA), Jan 29, 2021 (UK), Jan 20, 2021 (Italy), Feb 9, 2021 (Germany), Feb 10, 2021 (Spain), Feb 11, 2021 (France), or Feb 3, 2021 (South Korea).

Table: Age-specific data for seven countries showing estimated all-cause deaths compared with COVID-19 deaths

accurately represent the reality in these countries, it is not possible to access such data for other causes of death. We therefore used estimates from the Global Burden of Disease 2017 database, which does not account for seasonality or changes in mortality patterns in this pandemic year. Nevertheless, the very low mortality we describe from COVID-19 compared with all-causes is likely to be of the correct magnitude. With the caveat that some children at high risk might be using extreme so-called shielding measures, children are overall not becoming seriously unwell with COVID-19,5 and data from England show that children are also not requiring intensive care in large numbers.6

Some of the measures to counteract the devastating impact of the virus

on adults are having unintended negative consequences for children.7 The possible benefit to wider society of these measures should be constantly scrutinised to ensure proportionality in line with outcomes for all. Our evidence indicates that children continue to be mostly, but not completely, spared the worst outcome of the pandemic, particularly compared with older adults who have been much harder hit.8 We continue to caution that the virus is likely to change over time, and that these conclusions should be kept under review.

We declare no competing interests.

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For the **data table of COVID-19 deaths** see https://docs.google.com/document/d/e/
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See Online for appendix

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