

# SARS-CoV-2 children transmission: The evidence is that today we do not have enough evidence

*'Confined' is not a 'real world' situation.*

Dear Editors,

I have read with interest the review by Ludvigsson on the role of children as transmitters of the new coronavirus (SARS-CoV-2). An in-depth review of the current literature focused on 40 published articles and 7 non-peer-reviewed papers.<sup>1</sup>

All the papers included have been done under lockdown conditions. As a consequence, we should not ignore a main bias of this review.<sup>1</sup> The main conclusion we can draw now is that under confined conditions, children are not the main drivers of the COVID-19 pandemic. And 'Confined' is not a normal situation.

In the review, we can read a section called 'Real World evidence'. In this section, only two papers are included.<sup>1</sup> Even in the context of our need for knowledge, we cannot ignore the fact that conclusions drawn from partial knowledge can only be partial. There is also described the Sweden experience, and we are obliged to check the external validity of what we state. Schooling, the teacher-pupil ratio and physical spaces will be of great importance in controlling transmission. And they differ between countries and cultures. For example, in my country, Spain, this will be probably different from the authors. What will happen with multiple social and structural conditions? We do not know; we can only guess.

In turn, one of the author's fundamental assertions is that the opening of schools would unlikely to modify the mortality of the fragile population. I understand this point, but another way of approaching this would be to say that certain mortality must be assumed if the schools are reopened under unsuitable conditions. On this fact, studies by Zhang et al<sup>2</sup> estimate that closure of schools would delay the epidemic peak by 40%-60%. This effect could be fundamental to avoid the collapse of health care and, consequently, to reduce morbidity and mortality especially in at-risk populations.

Children are suffering from side effects because of this pandemic on both education and clinical care.<sup>3</sup> In the latter, the drop in vaccination rates is a cause for concern. The schools reopening must be done in compliance with public health measures.<sup>1,3</sup> In turn, it should be done assuming that the knowledge we have today about

the transmission of SARS-CoV-2 among children or from children to adults is scarce. As the author states 'it is highly likely that children can transmit the SARS-COV-2 virus, which causes COVID-19, and even asymptomatic children can have viral loads'.<sup>1</sup> We cannot say that they do not have a role, but at the same time, announcing the opposite. Hesitation is logical.

Children will return to school, and data of their role on transmission will emerge from that gradual return. I do not mean that I think that they are effective transmitters, and I am only stating that based on the current evidence, we are unable to make a firm statement one way or the other. They have not been the 'main drivers' in this first wave, but we must adjust to the evidence to avoid be drowning by the second.

## CONFLICT OF INTEREST

There is no potential conflict of interest.

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## REFERENCES

1. Ludvigsson JF. Children are unlikely to be the main drivers of the COVID-19 pandemic - A systematic review. *Acta Paediatr.* 2020;109:1525-1530.
2. Zhang J, Litvinova M, Liang Y, et al. Changes in contact patterns shape the dynamics of the COVID-19 outbreak in China. *Science.* 2020;368:1481-1486.
3. Jacqui W. Covid-19: delaying school reopening by two weeks would halve risks to children, says iSAGE. *BMJ.* 2020;369:m2079.