## School's out - balancing childcare needs of key workers with COVID infection control

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As of 23 March, the UK has closed schools to all but vulnerable children and children of key workers with no other means of childcare (1). Other countries have implemented similar strategies. The aim of this drastic move is to reduce coronavirus transmission among children, who typically are central to the spread of respiratory diseases because of their high contact rates with other children (2). However, the risk of such a "pooled childcare for key workers" approach is that schools may exacerbate transmission among individuals vital to the COVID-19 response. Hence, an effective strategy for infection control at school, given the resources available, is needed to minimise the risk for an accelerated COVID-19 epidemic among key workers via their children.

On 24 March the UK government has published guidelines for schools on how to implement COVID-19 infection control during this time of caring for children of key workers (3). The principal recommendations sensibly include frequent hand washing, to keep class sizes as small as possible, to stagger lunch and break times and to ensure that neither children, teaching staff nor parents who display symptoms that are typical for COVID-19 enter school grounds.

A challenging feature of COVID-19 epidemiology is that transmission seems common before clear symptom onset (4). Consequently, quarantining of (as yet) asymptomatic contacts of potential as well as confirmed COVID-19 cases is needed for optimal outbreak control. This principle should be similarly applied to schools and further highlights the need to keep contacts within schools at a minimum and highly clustered. In practice that means that in addition to current recommendations, children should not only be cared for in groups of minimum size but also in fixed groups that change as little as possible. Similarly, the pool of teaching staff assigned to specific groups will need to be kept as small as possible to limit the number of staff exposed to a potentially pre-symptomatically transmitting child and who will therefore require quarantine should a child start displaying symptoms. Furthermore, use of the same room by different classes during the same day should be avoided as far as possible to limit the potential spread via contaminated surfaces (5). If children from different schools are brought together because the number remaining in care at individual schools has become so low it is unfeasible to keep running, these recommendations become even more important.

Taken together with the quarantining of the school contacts of cases, these measures should help minimise disruption in the childcare of key workers and prioritise the safety of teaching staff, pupils and their parents.

## References

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