

School closures play only a marginal role in containing COVID-19, new study says

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School closures do not appear to have a significant effect on the spread of infections during coronavirus outbreaks such as COVID-19 but will be crucial to how we restart society after lockdown, according to a new



study led by UCL.

The <u>systematic review</u> published today in *The Lancet Child & Adolescent Health* is the first study to look at the evidence and emerging data on the benefit of <u>school closures</u> and other <u>school</u> social distancing interventions in outbreaks such as SARS, MERS and COVID-19.

The international research team reviewed 16 studies, which included nine peer-reviewed papers on the 2003 SARS <u>outbreak</u>, one preprint on previous <u>coronavirus</u> transmission and five preprints and one report on the COVID-19 pandemic.

Data collected from the SARS epidemic did not generally support a role for school closures; one modeling pre-print showed that school closure, as an isolated measure, was predicted to reduce total deaths by only around 2-4% during a COVID-19 outbreak in the UK.

The study highlights that data from influenza outbreaks, which show benefits of school closures, cannot necessarily be applied to coronaviruses and that school closures have only small effects in infections with a high reproductive number, such as COVID-19, where children are not the main drivers of infection.

Professor Russell Viner (UCL Great Ormond Street Institute of Child Health and President of the Royal College of Paediatrics and Child Health) said, "We know from previous studies that school closures are likely to have the greatest effect if the virus has low transmissibility and attack rates are higher in children. This is the opposite of COVID-19.

"Data on the benefit of school closures in the COVID-19 outbreak is limited but what we know shows that their impact is likely to be only small compared to other infection control measures such as case isolation and is only effective when other social isolating measures are



adhered to.

"Additionally, the costs of national school closures are high—children's education is damaged and their mental health may suffer, family finances are affected, keyworkers may need to stay home to look after children and vulnerable children may suffer most.

"With nearly 90% of the world's students (more than a billion and a half of young people) out of school, more data and robust modeling studies are urgently needed to help us identify how countries can, in time, safely return students to education."

At the time the study was written on 18 March 2020, 107 countries had implemented national schools closures in response to the COVID-19 pandemic. The reviews finds that data from the SARS outbreak in China, Hong Kong and Singapore suggest that school closures did not contribute to control of the epidemic and modeling studies of SARS produced conflicting results.

Professor Viner added, "Policymakers need to be aware of the equivocal evidence when considering school closures for COVID-19 given the profound and long lasting effect they will have on children—particularly the most disadvantaged.

"Countries that have closed schools, such as the UK, have to now ask hard questions about when and how to open schools. Interventions in schools, such as closing playgrounds, keeping students in constant class groups/classrooms; increasing spacing between students in classes, reducing the school week and staggering school start and break times across years or classes, should be considered, if restrictive social distancing policies are to be implemented for long periods of time."

More information: Russell M Viner et al. School closure and



management practices during coronavirus outbreaks including COVID-19: a rapid systematic review, *The Lancet Child & Adolescent Health* (2020). DOI: 10.1016/S2352-4642(20)30095-X

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