

Targeted school closure policies may help the fight against pandemic influenza

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Targeted school closure policies may help mitigating the spread of pandemic influenza, while entailing lower social costs than more traditional policies, such as nationwide school closure. This emerges from a modeling study published in *PLOS Computational Biology* led by Laura Fumanelli.

In the work, the authors simulate influenza spread and evaluate the impact of four different school closure types: nationwide, countywide (all schools in a county), reactive school-by-school (entire school when student absenteeism exceeds a certain threshold) and reactive gradual closure (classes first, then grades, and finally the entire school).

The researchers find that gradual and countywide closures are the two most effective strategies in terms of number of averted cases and school weeks lost per student. These approaches entail lower [social costs](#) than nationwide closure since they involve a lower number of students and parents who must stay away from work to take care of them.

A lot of analyses have already explored the impact of closing schools to reduce influenza transmission, but most of these studies have focused on the very costly approach of nationwide closures. These were regarded as too burdensome by a number of countries during the 2009 pandemic.

Contingent on the economic and social costs that health authorities are willing to afford in relation to disease severity, targeted [school closure](#) policies may thus contribute to limit the impact of future influenza

pandemics.

More information: Fumanelli L, Ajelli M, Merler S, Ferguson NM, Cauchemez S (2016) Model-Based Comprehensive Analysis of School Closure Policies for Mitigating Influenza Epidemics and Pandemics. *PLoS Comput Biol* 12(1): e1004681. [DOI: 10.1371/journal.pcbi.1004681](https://doi.org/10.1371/journal.pcbi.1004681)

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