

Managing schools during the current pandemic (H1N1) 2009 – Reactive and proactive school closures in Europe

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Proactive school closures, that is, closing schools ahead of a pandemic arriving in an area, is a public health measure that has been commonly suggested for mitigating the impact of pandemics. It has been suggested that they could help because children are considered to be more infectious and susceptible to seasonal influenza than adults and can therefore be important vectors of transmission. Similarly, the high contact rates among children in schools favour transmission.[1,2] This is an area that is addressed with other public health measures in the ECDC ‘Menu’ on Public Health Measures.

Here it is important to distinguish between proactive closures of schools (which means closing schools just as, or even before, they are affected by a pandemic) and reactive closures, which occur simply because many students or staff are sick and the schools cannot function for a while (Table 1).

It was hoped by some that closing schools proactively during a pandemic may break some chains of transmission and so reduce the total number of cases. This would, to some extent, slow the epidemic, giving a little more time for final preparations and vaccine development and production, as well as reducing the incidence of cases at the peak of the epidemic. The latter effect in particular, would limit both the stress on healthcare systems and peak absenteeism in the general population.

However, though some health benefits can be expected, there is still considerable debate about if, when and how, proactive school closure policy should be implemented.[3] There is no consensus on the scale of the benefits to be expected but the most recent scientific review addressing the general issue, conducted by a European group of authors from the UK, France, Sweden and ECDC, concluded that proactive school closures could indeed be beneficial in the ways described above, but only if the children do not simply mix elsewhere outside the schools.[4] Any benefits, however substantial, must be weighed against the potential high economic and social costs of proactively closing schools.[3,4] Particularly critical may be the negative impact of unplanned school closures on key health workers since, for example, many doctors and nurses are also parents with dependent children.[4] There are also many important operational issues related to school closures which, though not insuperable, need careful preparation. It is also important to remember the many educational and social functions that schools deliver which would be lost, especially by prolonged closures (Table 2).

The current pandemic (H1N1) 2009 is proving especially challenging when considering school closures. The heterogeneous and unpredictable distribution of outbreaks and the mild nature of the illness in most people means that, by the time it becomes clear that the infection is in a school, it is too late for a proactive closure. For example, the Centers for Disease Control and Prevention (CDC) in North America, has moved away from recommending that authorities consider proactive closures. The CDC is also emphasising the importance of local flexibility and local decisions.[2,5] Within Europe there are

different traditions with regard to school closures, and schools and school systems are often administratively complex bodies not necessarily under a single national authority. Communication of the policies to the public presents particular challenges in a European context where some countries (or even regions within a country) may close schools proactively, others perhaps only reactively and some not close them at all. In their paper published in *The Lancet*, the authors point out that historical experience shows that some schools close during pandemics just because of high levels of illness-related absenteeism. That has been the experience to date in North America.[4,6] It therefore seems sensible for countries and schools to at least have plans for reactive closures.

Table 1: Definitions and types of school closure

- School closure: Closing a school and sending all the children and staff home.
- Class dismissal: A school remains open with administrative staff but most children stay home.
- Reactive closure: Closing a school when many children and/or staff are experiencing illness.
- Proactive closure: School closure or class dismissal before significant transmission among the school children occurs.

Table 2: Operational questions concerning school closure to be considered during pandemic (H1N1) 2009

- The need for local sensitivity in timing in larger countries as the pandemic spreads; even if proactive school closures are considered desirable, it will not be necessary for all schools to close in all parts of a country at once, despite the communication and administrative advantages of doing so.
- What should be the trigger for proactive closures? Some suggested triggers are:
- The first case/outbreak involving the pandemic strain confirmed in a child or teacher.
- Outbreaks in neighbouring/nearby schools.
- What should be the trigger for re-opening? Low levels of transmission in surrounding community?
- What should be the recommended length of time of closure?
- How to sustain teaching and learning over prolonged periods of closure, especially for pupils approaching examinations.
- How to maintain contact between the schools and families and teachers; the advantages of ‘class dismissal’ over ‘school closures’.
- Anticipate group childcare arrangements so that any healthcare benefits are not undermined; consider organised approaches to alternative childcare.
- How to sustain vital social functions of some schools, especially with regard to disadvantaged and vulnerable families.
- Consider the major complexities of school systems that comprise state schools, independent schools, faith-based schools and the fact that decisions on school closures are often a matter for local not central government, i.e. some European

countries find it much harder than others to have command and control relations with schools.

- Consider the potential loss of earning of parents who have to take time off work.
- Establish agreements between sectors (such as education and health) so that one does not undermine the other.
- Consider the communication issues inherent in explaining different policies in neighbouring countries or even adjoining administrations.
- Consider early warning mechanisms so that adjoining administrations are aware of imminent decisions.
- Should Tertiary (Higher) Education and pre-school care be included?

References

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Influenza;Influenza A(H1N1)v;Pandemic Influenza;Influenza;Health Communication