

Journal club

Effects of school closure on incidence of pandemic influenza in Alberta, Canada

This study uses data from the influenza pandemic in Alberta, Canada in 2009 to investigate whether incidence and transmission are affected by weather changes and school closure.

During a 9-month period 35,510 influenza tests were performed in Alberta, of which 19% tested positive for pandemic H1N1 (pH1N1). Using mathematical transmission modelling, the study compared the confirmed cases of pH1N1 with weather patterns and the school calendar.

The results suggested that the end of the school term had a significant impact in reducing the first 'wave' of the pandemic; modelling showed transmission rates dropped in school children by more than 50% following school closure. A second wave of pH1N1 occurred shortly after school re-opening. Transmission was also affected by climate changes such as a low temperature, which correlated with increased transmission.

The study is limited in that it only takes into account cases of influenza that were confirmed virologically, meaning that data is dependent on the number of tests being requested, and is likely to represent a small proportion of the total number of cases of pH1N1 in Alberta. The mathematical modelling is based on simplifications which were necessary for data analysis but may distort the outcomes.

The study concludes that school closure reduces transmission in school aged children, which affects transmission in other age groups. Social distancing methods such as school closure could be an important tool in controlling future pandemics.

► **Eam DJ**, Daihai H, Loed MB, *et al.* Effects of school closure on incidence of pandemic influenza in Alberta, Canada. *Ann Intern Med* 2012;**156**:173–81.

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