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.


Beatrice Downie

Correspondence to Dr Beatrice Downie, ST2, Hillingdon Hospital NHS Foundation Trust, Pield Heath Road, Uxbridge, Middlesex UB8 3NN, UK; beadownie@doctors.org.uk

Thorax 2012; 68:1. doi:10.1136/thoraxjnl-2012-202054

Copyright Article author (or their employer) 2012. Produced by BMJ Publishing Group Ltd (& BTS) under licence.
Effects of school closure on incidence of pandemic influenza in Alberta, Canada

Beatrice Downie

Thorax published online May 10, 2012

Updated information and services can be found at:
http://thorax.bmj.com/content/early/2012/06/11/thoraxjn-2012-202054

These include:

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/