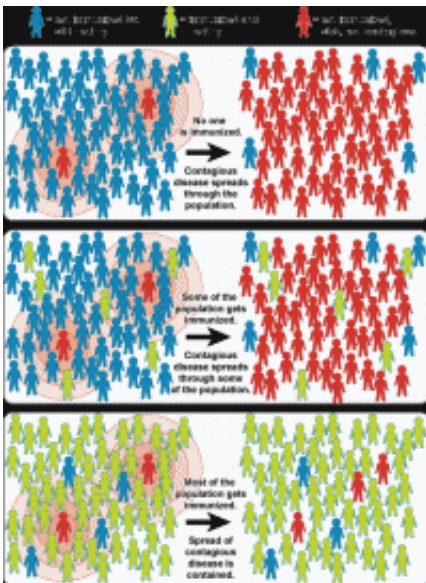


Vaccinating children against flu helps protect wider community: study

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Credit: NIAID

Results of a clinical trial conducted in a largely self-contained religious community during the 2008-09 influenza season show that immunizing children against seasonal influenza can significantly protect unvaccinated community members against influenza as well. The study was conducted to determine if immunized children could act as a barrier to limit the spread of influenza to the wider, unvaccinated community, a concept known as herd immunity.

Researchers recruited volunteers from 46 Canadian Hutterite religious

colonies that have limited contact with surrounding, non-Hutterite populations. A total of 947 children between 36 months to 15 years of age participated in the trial; 502 children in 22 colonies received 2008-09 seasonal [influenza vaccine](#), while 445 youth in the other colonies received hepatitis A vaccine. The hepatitis A vaccine served as a control vaccine for comparison.

In the six months after the children were vaccinated, 119 of 2,326 unvaccinated community members (who were of all ages) developed laboratory confirmed cases of influenza. Of these, 80 of 1,055 were from colonies where children received hepatitis vaccine, while 39 of 1,271 were from colonies where children received the influenza vaccine.

The researchers found that influenza vaccination was 61 percent effective at indirectly preventing illness—that is, protecting via herd immunity—in unvaccinated individuals if they lived in a colony where approximately 80 percent of the children had received flu vaccine. The findings, they write, "...offer experimental proof to support selective influenza immunization of school aged children...to interrupt influenza transmission. Particularly, if there are constraints in quantity and delivery of vaccine, it may be advantageous to selectively immunize [children](#) in order to reduce community transmission of influenza."

More information: M Loeb et al. Effect of influenza vaccination of children on infection rates in Hutterite communities. JAMA 303:943-50 [DOI:10.1001/jama.303.10.943](https://doi.org/10.1001/jama.303.10.943) (2010).

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