

## Universal flu vaccination of most value in the US

Universal influenza vaccination of the US population is likely to improve outcomes and result in lower costs, compared with current recommendations of vaccinating only selected age and risk groups, say investigators from that country.<sup>1</sup>

Their model showed that, assuming a societal perspective, current policy would lead to 63 million influenza-like illness (ILI) cases per year, resulting in a loss of 857 000 QALYs and incurring costs of \$US115 billion (costs and QALYs discounted at 3%; 2008 values).<sup>\*</sup> **Universal vaccination would economically dominate this current policy**, averting 2 million ILI cases, resulting in 31 000 fewer QALYs lost and costing \$US3 billion less. Probabilistic sensitivity analysis revealed "considerable uncertainty", with universal vaccination projected to be dominant in 54%, and dominated in 20%, of iterations, note the investigators.

### Best H1N1 vax strategies based on risk, age

Another US-based modelling study found that **vaccinating children and working-age adults against an H1N1 influenza A subtype pandemic would be "cost-effective compared to other preventive health interventions under a wide range of scenarios"**.<sup>2</sup>

Such vaccination prior to an outbreak would be cost saving<sup>\*\*</sup> among individuals aged 6 months to 64 years with high-risk conditions, assuming a 15% overall attack rate.

For those without high-risk conditions, pandemic H1N1 vaccination would require a net investment relative to no vaccination, with incremental cost-effectiveness ratios ranging from \$US8000 to \$US52 000/QALY, depending on age and risk category.

**Vaccinating those aged < 20 years is the "most cost-effective strategy for mitigating the impact of pandemic influenza"**, according to US-based researchers.<sup>3</sup> The least cost-effective strategy is to vaccinate those aged  $\geq 60$  years, they continue.

The researchers found that the most cost-effective H1N1 pandemic vaccination strategies would be for those age groups where "within and outside class interaction is the greatest" (i.e. children and teenagers).

\* Their study was sponsored by GlaxoSmithKline.

\*\* from a societal perspective, modelled over 1 year

1. Clements KM, et al. COST-EFFECTIVENESS OF UNIVERSAL INFLUENZA VACCINATION IN THE US. 15th Annual International Meeting of the International Society for Pharmacoeconomics and Outcomes Research : abstr. PIN18, 15 May 2010. Available from: URL: <http://www.ispor.org>.
2. Prosser LA, et al. COST-EFFECTIVENESS OF 2009 PANDEMIC INFLUENZA A (H1N1) VACCINATION IN THE UNITED STATES. 15th Annual International Meeting of the International Society for Pharmacoeconomics and Outcomes Research : abstr. PIN32, 15 May 2010. Available from: URL: <http://www.ispor.org>.
3. Hettle R, et al. A PRELIMINARY COST-EFFECTIVENESS ANALYSIS OF TARGETED VACCINATION POLICIES TO MITIGATE THE IMPACT OF THE H1N1 PANDEMIC IN THE US. 15th Annual International Meeting of the International Society for Pharmacoeconomics and Outcomes Research : (plus oral presentation) abstr. CE4, 15 May 2010. Available from: URL: <http://www.ispor.org>.