Reviewer's report

Title: Is expanding HPV vaccination programs to include school-aged boys likely to be value-for-money? A cost-utility analysis in a country with an existing school-girl program

Version: 3
Date: 12 March 2014
Reviewer: Mark Jit

Reviewer's report:

The analyses and comments that the authors have conducted have gone a long way towards addressing my concerns with the first version of the manuscript. I'm not totally convinced by the limited Canada-New Zealand comparison but given the limited data on sexual behaviour in New Zealand, I agree that adequate sensitivity analyses are the best way to capture potential differences in HPV reduction between New Zealand and Canada. Similarly, the additional sensitivity analysis where herd immunity benefits for males are excluded in a female-vaccination only programme is an important step towards incorporating the potential reduction in herd immunity benefits as a results of much of male HPV disease being in MSM.

Minor essential revisions

While the additional sensitivity analyses are useful, the assumptions are only varied one at a time, and with the sole consideration of whether changing them singly could change the overall conclusion. They are also buried at the bottom of a table or in the appendix.

It is worth considering a scenario most in favour of male vaccination (i.e. some attenuation of the reduction in male cancers due to female vaccination due to both MSM and changes in sexual behaviour) and exploring what kind of vaccine prices would make male vaccination cost-effective. This would be helpful for public health messaging: while at current prices male vaccination is highly unlikely to be cost-effective, there is likely to be some low price (perhaps close to the GAVI price) at which male vaccination could become cost-effective under favourable assumption.

Discretionary revisions

If anything the adjustment for MSM is overly conservative, and it may be better to reduce the herd immunity benefit by a fraction representing the likely proportion of male cancers that are in MSM (there are relative risks for cancer in MSM compared to MSW in the literature albeit not for New Zealand).

Level of interest: An article of importance in its field
Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests: 
I declare that I have no competing interests