Reviewer's report

Title: Dynamic models of pneumococcal carriage and the impact of the Heptavalent Pneumococcal Conjugate Vaccine on invasive pneumococcal disease.

Version: 1 Date: 22 October 2009

Reviewer: Michael Haber

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Major Compulsory Revisions

Two new papers on modeling the effects of the PCV have recently been published:
(2) S.J. Snedecor et al. – Vaccine 27:4694-4703 (2009).
The authors should detail the similarities and differences between their model and the two earlier models.

Minor Essential Revisions

Page 2 (abstract – results): ‘… infant vaccination was estimated to prevent 39,000 IPD cases in the UK …’. I could not find any mention of this finding in the Results Section.

Page 7, line 19: should become .

Page 8, Recovery Rates: It is assumed that vaccination does not affect the length of carriage. Is this assumption justified?

Page 9, bottom: The case:carrier ratios are very important parameters. They should be displayed and included in the sensitivity analysis.

Pages 10-12: References to figure number are incorrect. For example page 10, line -3 ‘Fig 6’ should be ‘Fig 5’.

Discretionary Revisions

None