Reviewer's report

Title: Socioeconomic factors and other sources of variation in the prevalence of genital chlamydia infections: A systematic review and meta-analysis

Version: 2 Date: 6 May 2015

Reviewer: Anne Caroline Rudisill

Reviewer's report:

This paper addresses an important issue in chlamydia screening programmes and is overall well presented with appropriate methods to answer the posed research questions. My comments are minor but will hopefully help in improving the paper.

1. p. 4, last paragraph – one of the other reasons it is hard to get routine health service data that might yield correct population estimates is that chlamydia testing can take place in a number of channels (clinics, GPs, testing services online, schools, etc) some of which may not be connected up with health service data collection.

2. The intro – The paper needs to better motivate why this study is needed. The research and policy implications section cites two papers examining the research questions posed here but there is no mention of how these studies leave gaps that the present study fills. While ‘why the topic is important’ was appropriately addressed, ‘what this study does that no else does’ has not been answered.

3. Categorization of the socioeconomic measures – Under the research and policy implications section (p. 14), the authors use criteria for socioeconomic variables (young-people-specific, area-based measures, parental measures, household measures). The paper would be improved by setting out criteria in the methods section for the variety of socioeconomic measurements. While the figure shows this, would be better to be quite clear on what these are since this is a crucial element of the paper. It will also help better capture the heterogeneity issues.

4. Methods – how did the authors undertake a strategy where the English language was not a requirement of all studies? Were the search terms translated? (p. 12 – lack of exclusions based on language)

5. p. 14, research and policy implications section – similar to point above but two studies are mentioned here that ask what seem to be the same research questions. This section could be improved by discussing why your results might differ from what these papers found – for example, search criteria, definitions of socioeconomic position, etc.

6. p. 15, first full paragraph – the lower socio-economic position populations might also have a lower likelihood of being tested which could also explain some
of the higher risk of infection within the group.

7. p. 15, last full paragraph – this paragraph is very England-specific and I am not sure if the study’s results allow the authors to be so country specific in their prescriptions. If they wish to apply results for the whole sample to the NCSP then would say this.

8. p. 15, last full paragraph – on the issue of older males – would mention that perhaps some modes of testing might be more successful with this group than others such as internet-based test kit requests (Dolan and Rudisill 2014 in Social Science and Medicine)

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests