Reviewer's report

Title: Tracking type specific prevalence of human papillomavirus in cervical pre-cancer: a novel sampling strategy

Version: 3 Date: 9 May 2012

Reviewer: Mark Myatt

Reviewer's report:

The authors have produced an improved MS (as well as picked up on some sloppy thinking on my part!).

I remain a little confused about Table 1. The portions misclassified (any incorrect) seem to be inconsistent with Figure 2. Looking at figure 2 for low prevalence we see something like:

prevalence = 0%, P(low classification) = 1
prevalence = 1%, P(low classification) = 0.99
prevalence = 2%, P(low classification) = 0.92
prevalence = 3%, P(low classification) = 0.79
prevalence = 4%, P(low classification) = 0.65
prevalence = 5%, P(low classification) = 0.5

This gives a P(low classification | low prevalence) of about 0.8. I would expect, therefore a misclassification proportion of about 0.2 (not 1.24 per million). I think the problem is that I am expecting the table to show something different from what is actually being shown. I think that the table should be showing (e.g.) 1 - P(low classification | low prevalence). I think that this table needs revising.

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 have no competing interests.