Author's response to reviews

Title: Testing for sexually transmitted infections in general practice: A cross-sectional study

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Author's response to reviews: see over
Response to Reviewers’ comments

Thank you for giving us the opportunity to respond to the reviewers’ comments. Please find our point by point response below. Page, paragraph and line numbers in our response refer to the position of changes in the revised text.

Reviewer: Ted White

Discretionary suggestions:
1. P5, line 8: “...taken tests for chlamydia or HIV during the study time period” may be better reworded as “collected specimens for chlamydia or HIV testing.

   Thank you. We have changed this to (p5, end of para 2), “whether or not specimens for chlamydia or HIV had been taken during the study time period.”

2. P7, paragraph 2: This paragraph might be reworded to be clearer; the figures however are quite clear.

   We have re-worded this paragraph (p7, para 2) to make it clearer, “Among the 64 general practices in Brent, there were marked differences in testing for chlamydia and HIV over the three year study period; 56% (n=34) of practices had taken no specimens for HIV testing, 25% (n=16) had taken no specimens for chlamydia testing, and 19% (n=12) had not taken specimens for either infection. There was no evidence of changing testing rates over the study period. In 143 general practices in Avon in 2004, by contrast, only 2% (n=3) had not taken any specimens for HIV tests and 10% (n=14) had not taken any specimens for chlamydia testing.”

3. P7, last sentence: At first reading this sentence appears to report teen conception rates among women aged 15-44 years; it might be slightly reworded.

   We apologise for this error. We have corrected this to “women aged 15-19 years.” (p8, lines 4-5).

4. P8, first sentence: “increasing deprivation” might be worded as “greater deprivation”. We have made this change (p8, lines 4-5).

5. P8, last sentence: “testing ratios” might be specific, as sex ratios.

   We agree this was confusing. We have re-worded the sentence (now p9, line 4), “…differences in general practice to GUM clinic ratios between Brent and Avon.”

Minor suggestions:
6. “List size data” is not entirely clear terminology; does this refer to aggregate data? Do data from the NPCD pertain to actual clinic patients, or do they reflect the number of tests (and number of positive test results) in the region? How are they related?

   We agree that this was not clear. We have replaced the description of how information about general practice lists was used (p5, para 2), “We used data from the National Primary Care Database (NPCD) [18] to obtain the number of patients registered with each general practice. We then applied the numbers of chlamydia and HIV tests, obtained from the laboratory records, to calculate testing rates for each infection (per 1000 practice population aged 15-44 years).”

7. “Chlamydia positivity rates” are mentioned in the methods but are not mentioned in the results. In addition, “rate” generally refers to events per unit of person-time; it seems as though the intention might be to compare positive test prevalence.

   The reviewer is correct. We did not report chlamydia positivity so we have deleted this sentence.

8. It is not clear whether the sex and age of each patient tested were available. This may reflect the lack of clarity of the term list size data. From where were sex and age data (by individual or in the aggregate) obtained?

   We think that our revised description in response to point 6 addresses this question. We did have individual level data for the patients tested from the laboratory datasets, but not for the list size.

9. The ratio between male and female patients at GUM clinics vs private practices may reflect the mission of GUMs to serve gay and bisexual men. I doubt that data are available to assess how much differences in sex ratios may reflect this, but it might be recognized as a limitation. Gay men
may also be tested for HIV in multiple anatomic sites—it's possible that this would be reflected in the number of tests performed on males at GUMs.

This is an interesting point. We have made additions to the Discussion (p9, last para) to give our interpretation of the differences. "Whilst more men who have sex with men attend GUM clinics than general practice, this would not be large enough to account for the differences in testing ratios in women compared to men. We did not, however, have data to examine this formally. The disparity is more likely to reflect the routine testing of male patients for chlamydia in GUM clinics."

We only counted one test per person, so the data are not affected by multiple specimens from the same patient. We have added this to the Methods (p5, line 1).

10. Also in regard to the differences in sex ratio, the method of chlamydia testing used for male patients may differ between clinic types (and locations). If for example, urethral testing for chlamydia at GUMs is accomplished using a urine NAAT, but physicians in private practice tend to offer testing by culture of urethral swab, fewer male patients in the latter may be offered testing or accept it. We think this is unlikely. GUM clinics and general practices served by the same laboratory would use the same type of specimen and diagnostic test. We have not commented on this in the text.

11. P7, paragraph 3: Were NCPD data analyzable by age category, by sex? If so, this may be informative. We agree. Unfortunately, we did not have the data in this form.

Reviewer: Kaveh Manavi

1. This study aims to investigate an important issue. How can we convince GPs to carry out HIV and chlamydia testing?

We think that our description of the aims of this study, and the larger project of which it is a part might have confused the reviewer. The main project aims to develop an intervention to increase STI testing and management in primary care. The study that we report here was the part of the project that helped us to describe and understand patterns of STI testing in general practice. We apologise for this and have re-worded the last paragraph to clarify this (top of p4), "The aim of this study was to determine how routinely available data can be used to explore patterns of chlamydia and HIV testing and their relation to practice and population characteristics in general practices. The study formed the initial phase of a larger project aimed at developing and targeting an intervention to support the management of STIs in primary care. Our specific objectives were: to determine chlamydia and HIV testing rates; to determine the proportion of patients registered with general practices that had undertaken chlamydia and HIV testing; and to examine associations between HIV or chlamydia testing rates and population measures of teenage pregnancy and socioeconomic deprivation."

2. The study's solution is to show the marked differences between the number of tests carried out in GUM and that of GP practices in two different regions. I do not think this will provide strong enough argument for that end. In addition comparison of their activity with GUM clinics is not terribly helpful; GPs could argue that it is GUM clinics' one of important roles to carry out HIV testing whereas not theirs.

As explained, we do not expect that this information on its own will bring about a change in practice. We have added a section to the end of the Discussion (p11) to clarify how we are using the findings of this study, "The development of interventions to support primary care practitioners in delivering STI and HIV testing should take into account the observation that rates of testing might be low in areas with high levels of need for sexual health care. We are completing further research to develop a web-based tool to support sexual health care for people presenting to general practices in Brent and Avon, which has been informed by the findings of this study. This study suggests that the use of routinely-
collected laboratory, practice-level and demographic data for monitoring sexual health service provision and informing service planning should be more widely evaluated."

3. They also investigate correlation between GPs’ age and HIV testing in their practices and not surprisingly to me, did not find any in one site.

*We think this is a misunderstanding. We did not examine practice level factors associated with HIV testing in Avon because there were only three practices that had not done any testing. In the Brent area there was an association between GP age and testing (p8, para 3). We have not changed the text.*

4. How do the authors propose that by showing the difference, GPs would feel compelled to do more HIV testing?

*Please see our response to point 2, above.*

5. The most important limitation of the study is that it is based on limited data available to the investigators and the degree of bias this could have caused.

*We agree that we had access to a limited set of variables at the individual level and this is acknowledged in the Discussion (p10, para 2). We do not think that the lack of data has introduced bias, but agree that our description of patterns of testing is incomplete.*

6. In summary, unfortunately I am not convinced that the questions posed in this study would help to promote HIV testing amongst GPs. Studies that include patients’ clinical outcome would in my view make higher impact to this end.

*Please see our response to point 2, above.*