Author's response to reviews

**Title:** The potential to improve ascertainment and intervention to reduce smoking in Primary Care: a cross sectional survey

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**Author's response to reviews:** see over
Dear Editor,

RE: MS: 2142366482136445

Please find below our responses to the reviewers comments concerning the above manuscript, and revised manuscript attached.

I look forward to hearing from you in due course.

Kind regards,

Rachael Murray

Major compulsory revisions

“The paper is much improved but it still contains elements of the previous draft that are no longer supported by the reanalysis. In particular, the conclusions (both abstract and main text) need major revisions. In my opinion, the main points are: That while in many practices ascertainment of smoking status is incomplete and/or inaccurate, failure to act appropriately on known smoking status still remains the biggest challenge.”

We agree with the reviewer that the conclusions of the study needed revision in light of the reanalysis, and have changed the abstract and conclusion accordingly.

“(Optional) If GPs could be shown greater benefit of regular intervention, they might be more conscientious in both ascertaining smoking status and in assuring that information was kept up to date. NB. This is based in part on the finding that identified smokers were more likely to want help.”

We feel that this suggestion goes beyond the scope of our data, and as such we would prefer not to add this to the discussion.

Other significant issues

“The variability in misreporting is huge. Use of 20% misclassification is thus misleading. This at least needs to be acknowledged.”

We feel that we already satisfactorily acknowledged the variability between practices (paragraph 3, page 9) in the following sentence:
“Our rate is very similar, and moreover, we found a large variation between practices in the proportion of smokers who were misclassified such that in one practice this reached 58.1.”

“(Optional). It would be useful to rank practices on a combined index of ascertainment and accuracy. This would give an empirically defined achievable standard that could be set, and act as a framework for expecting better performance in future. Similarly, the proportions of unknowns reporting to be smokers varied widely—was this related to the proportion of non-ascertained cases?”

We do not have data on the accuracy of smoking status for non-smokers so we can’t calculate the natural index which would be the ‘proportion of all those on the practice register with a smoking status that is correctly classified’. Any other combination of the indices of ascertainment and accuracy would involve subjective assessment of the relative importance of these two different characteristics, and we feel this would not add positively to the manuscript. We could add the correlation between the proportion of unknowns reporting to be smokers and the proportion of non-ascertained cases (the proportion of smokers who are not recorded as smokers) but we are not sure how one would interpret this correlation and have not added this data, but could do so if the editor wishes.

“Paragraph before conclusion. “The lack of correlation” sentence This may be true but the real issue is that high ascertainment does not preclude accuracy—so both can be achieved.”

Whilst we still suggest that smoking status may not be routinely updated in medical records once an initial recording has been made, we appreciate that it is still possible to have both high ascertainment and high accuracy, and have added a sentence to paragraph 1, page 10 to reflect this.

“Background paragraph 3. The first sentence seems out of place.”
This was a typing error and has been amended.

“Under table 1. The 42.4% ascertainment is a clear outlier—this needs to be taken into consideration.”

We agree that the 42.4% figure is an outlier but we have interpreted the data using the median value so that the outlier does not have an undue impact. We have also given the distribution of values so that this value is put into context.

“It would be sensible to recommend finding out ex-smoker status and years abstinent in future research of this kind, to get an idea of how frequently re-ascertainment should occur”
We agree with this point though one could also use national figures for annual proportion of quitters to estimate the likely change in smoking status over time.

“The first sentence of the discussion misses the point. The important question is what determines failures, not the averages”

We disagree with this point, in that the averages do provide a summary picture of the completeness and accuracy of recording of smoking status and the level of interest in quitting in Nottinghamshire general practice, and we have acknowledged that there is large variability in these data between practices. We do not have data to speculate on what may have caused this variability, or the reasons for low accuracy in some practices as compared to others.

“Last sentence of 2nd paragraph. This is presumptive, there is no focus on factors predicting accuracy.”

We agree with the reviewer that this sentence may have seemed presumptive. We have changed the sentence to read “It is also possible that there may have been selection bias in the practices that took part, for example, they may have had a greater interest in smoking cessation than others.”

“The Although 41%...paragraph. This would work better if you started with the 5% treated and showed that many are not getting the help they want, the % being difficult to accurately estimate, but it is at least...”

We would prefer to leave the paragraph structured as it currently stands. We feel that the reader needs to have some background to what the percentage of people requesting help is from our study after accounting for the response rate before comparing this with the proportion who are actually accessing help.

“Later that paragraph. The issue of the disadvantaged. Surely the first thing to do is to ensure that the identified smokers among the disadvantaged are appropriately assisted.”

We agree with the reviewers comments here, and have changed the sentence to read “Study findings suggest that the most economically disadvantaged smokers who suffer from the greatest smoking-related morbidity [19] are also the most interested in receiving support. It is important to ensure that this group is appropriately assisted, possibly by using novel methods of ‘marketing’ NHS stop smoking services to this group” (paragraph 1 page 9).
“What frequency of updating records would be recommended? i.e. a period not to exceed where practical. Also how might GPs go about achieving this? Something along these lines would strengthen the discussion.”

Since this manuscript was written at a time where periodic recording of smoking status was not reimbursed, we have taken this into account and added to the discussion (paragraph 2 page 10) accordingly: “At the time of our study, the general practice contract rewarded GPs for any record of smoking status that patients’ records contained, irrespective of when this was obtained, but revisions to this (introduced in 2007) will result in GP’s only being paid for ascertainment of smoking status that has occurred within the previous 15 months and this could generate more frequent updating of primary care smoking status records, enhancing their validity. A potential avenue for future research could ascertain whether these measures are effective in improving validity of these data.”

“Point 6 of my previous review. I was asking for an estimate of the % of smokers in each practice, based on practice records, adjusted by data from the survey. There seems to be huge variation and it would be of interest to see whether the error rates were related to the percentage of smokers. As identified non-smokers were not surveyed, a practice strategy of coding as a non-smoker would result in very high ascertainment and very low error rates (by your method), as you do not attempt to assess the false negative rates.”

We interpret this comment as the reviewer asking for a correlation between the proportion of smokers and the proportion with a smoking status. We would suggest that this correlation is unlikely to be helpful since if demonstrated it would be difficult to interpret and may have multiple explanations. If a negative correlation were present, the implication may be that some practices are recording people as non-smokers unless they know otherwise. However, one would also anticipate a negative correlation if higher levels of smoking in more disadvantaged areas coexists with relatively poorer resources to ensure databases are kept up to date. We have not therefore included this post hoc analysis, but could do so if the editor thinks this would be beneficial.