Author's response to reviews

Title: Assessing effects of a media campaign on HIV/AIDS awareness and prevention in Nigeria: results from the VISION project

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Author’s response to reviews: see over
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The Editor

BMC Public Health

Re: Manuscript ID 1438657617884574

Dear Sir or Madam,

Attached is a revised manuscript entitled ‘Assessing effects of a media campaign on HIV/AIDS awareness and prevention in Nigeria: results from the VISION project’. This work represents original research and has not been submitted for publication elsewhere. All authors have participated in the drafting, editing, and revision of this manuscript, and approved the final version.

This work illustrates the importance of mass media communication for disseminating public health information, and has broad applicability for others involved in the design of public health programs that use mass media interventions. This article should be published in BMC Public Health to illustrate the importance and utility of public health program evaluation for assessing behavior change, as well as to reinforce the importance of targeting specific populations within a community. As well, given the magnitude of the current HIV/AIDS pandemic, it is imperative that public health programmers and scientists have access to the most current information on effective field interventions for impacting HIV/AIDS. BMC Public Health is an excellent forum for communicating this information.

Following this letter is appoint-by-point response to each of the reviewer’s comments. We look forward to a final decision and appreciate any consideration given to this manuscript.

Regards,

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Title: Assessing effects of a media campaign on HIV/AIDS awareness and prevention in Nigeria: results from the VISION Project evaluation
Reviewer 1: Friday E. Okonofua

Response to comments and concerns:
1. No response needed.

2. The reviewer asked about complimentary activity by partner NGOs, the government, and non-partner NGOs. VISION was a consortium of international, government and non-governmental organization, organizations. As such, VISION reached out to organizations operating in the area, and assisted with the design of the message and dissemination of the information. Thus, organizations conducting complimentary activities (i.e. related to VISION goals and objectives) were included in the total count of VISION media programs. Based on a specific question in the questionnaire that asked “any other exposures” to FP/RH programs, we believe that exposure to smaller non-partner NGOs was limited.

As requested, a description of the parameters considered for sample size calculation has been inserted under the section entitled Methods – Data.

3. We completely agree with the reviewer’s comment regarding the use of a comparison group. However, given that this was a full coverage program in each of the VISION project areas and the funding for this project was pre-determined, this was not possible. When the evaluation was designed, we did investigate the feasibility of finding comparable control groups that would not be exposed to the intervention. Because many of the partner NGOs were also active outside of the VISION project areas, contamination of the control areas was unavoidable. Hence, we decided on the use of statistical techniques to control for the potential limiting effects of extraneous variables in the analysis.

Because this paper only explores “exposure” to VISION programs, which –by definition- was zero at baseline a comparison with baseline data is not relevant for this paper.

4. Point well taken. As suggested, the Results section is now presented separately from the Discussion section, with an elaboration of study design limitations included in the Discussion section.

5. Discussion and conclusions are now presented in the same section.

6. The title has been changed to more accurately describe the nature of the paper. The title now reads: “Assessing effects of a media campaign on HIV/AIDS awareness and prevention in Nigeria: results from the VISION Project evaluation”

7. No response needed

Response to specific comments:
1. Discretionary revisions: information on ethnicities was added to the Study Area paragraph.

2. Minor essential revisions:
   a. Legend text has been added in the appropriate section of the manuscript (per BMC guidelines), as well as in Figure 2. Figure 1 already has legend text in figure.
   b. Title has been changed, see 6 above
c. Typos have been corrected, per reviewer suggestions

3. Major Compulsory Revisions:
   a. Discussion has been separated from Results section
   b. A section on limitations has been added to the Discussion section of the manuscript.
   c. Information on complimentary HIV/AIDS activities is not available (see 2 above). As stated above, most local NGOs operating in the area were included as part of the VISION project, and most related activities were accounted for in the questionnaire, and thus we were able to ask questions about exposure to specific programs.

Reviewer 2: Lalit Dandona

Response to comments:

1. The reviewer queried if comparisons with a baseline survey could be done for key indicators. Given that this paper is investigating exposure to programs, and there were no program exposures at baseline, such a comparison is beyond the scope of this paper. However, such trend data have been reported on elsewhere. We have included a brief description of why exposure variables were not compared between the two survey rounds as a limitation in the discussion section.

2. The reviewer raises excellent points. We have addressed these points below, as well as in the appropriate sections of the manuscript.
   a. The reviewer asked how the study LGAs were selected. Our study includes all LGA in the VISION project target area. The latter was selected by the VISION partner organizations, in consultation with their donor.
   b. As requested, we added details about the sampling and the refusal rate.
   c. The reviewer requested clarification about the exposure measures used in the analyses. We have modified the last paragraph under the Data section to clarify the fact that 3 separate models were run: 1) using the cumulative exposure to all media programs (radio, printed advertisement, or TV; thus, 0-10), 2) using just exposure to radio programs (a total of 7 radio programs were implemented), and 3) using just TV programs (a total of 2 TV programs were implemented). The categorization of high, medium, low exposure was the same for all models, and was based on the distribution of the exposure, as determined during preliminary analyses.
   d. As requested, we added a definition of endogeneity in the data analysis section. It reads: “Since the results showed evidence of endogeneity (i.e. value of one independent variable is dependent on the value of other predictor variables), two-stage logistic regressions were performed using instrumental variables of program exposure.”
   e. We clarified that Table 3 shows the results of a Poisson regression. Hence, the values indicated in the table represent the estimated beta coefficients. The positive sign of the coefficient mentioned indicates that males are more likely to
be exposed than females. A statement to this effect has been inserted. Secondly, the constant terms for the respective regressions has been inserted as part of the table to assist with the interpretation of the estimated beta coefficients for reference categories.

f. Given that endogeneity exists in the data, which necessitates using the estimated odds ratios, we have deleted the observed odds ratios.

g. The primary data for each outcome per stratum are/were presented in figure 2, as well as in Tables 1 and 2. However, our study is interested not in differentials in the outcomes measures across the independent variables, but rather in the net effect of the latter (controlling for potential confounding variables). Thus, the distribution of the outcomes variables in each stratum of the independent variables is not shown (such descriptive statistics are published the survey reports, see Agha et al. 2003).

As requested, we included 95% confidence intervals for the odds ratios in tables 4-6. We have not done this for table 3, as this is not the standard approach for Poisson regression models. If this does not meet the requirements from BMC Public Health then we would be willing to change this.

3. Results and Discussion sections have been separated, and major limitations have been addressed in the discussion section. Further, information regarding the conclusions of this analysis has been inserted into the discussion section to offer additional insight into how these results translate into practice.

Minor Essential Revisions

1. The paragraph under the section entitle “Author Contributions” clearly describes the role and contributions for each of the authors. The asterisk behind each of the author’s name on the title page is to let the readers know that although the role of each author was different, per the paragraph under “Author Contributions”, the respective contributions were equal in weight (i.e. each contributed in a major way, consistent with requirements of the journal to be included as an author).

2. Abstract has been corrected according to the reviewer comments, with specific findings inserted into the Results section.

3. Direct references have been inserted for the prevalence of HIV, and related deaths, in Nigeria (UNAIDS 2002, NDHS 2003)

4. We agree with reviewer’s assessment of these seemingly contradictory statements. As such, we have changed the word “most” to “many” in the first paragraph of the Background section. Further, we have inserted/properly referenced updated references (UNDP 2003, Van Rossem et al 2001, Araoye et al 1998) to provide reference to current situation in Nigeria. We have retained some of the older references to illustrate that although the HIV situation is worsening, many of the practices and beliefs remain relatively unchanged.

5. Per the reviewer’s suggestion, the description of the VISION Project has been consolidated under one section, with the purpose of the paper concluding the Background section.
6. We clarified that eligible household members consisted of men and women ages 15-49 years old.

7. We clarified that the household questionnaire was field tested prior to the onset of the survey to check for errors, and to evaluate the readiness of the interviewers.

8. Exposure was dichotomized based on once a week a result of preliminary analyses, which lent insight into the distribution of the data. The following sentence (5th paragraph under the Data section) was modified to reflect this fact: “Based on the distribution of the data during preliminary analyses, exposure to media was measured by dichotomizing whether a respondent reads the newspaper at least once a week (yes/no), watches television at least once a week (yes/no), or listens to the radio at least once a week (yes/no).”

9. This concern has been rectified via the insertion of the proper references for each statement: “Chi-square statistics and two-stage logistic regression models were used to analyze the data [16 – Bollen et al 1995]. The Durbin–Wu–Hausman test (augmented regression test) was performed at the onset to test for endogeneity between program exposure and the respective outcomes [17 – Davidson & MacKinnon 1993].”

10. Recent articles in *BMC Public Health* routinely present standard errors when presenting point estimates other than odds ratios (i.e. means or proportions), as we have done in tables 1 and 2. No change was made, but we will defer to the editorial team on this comment and change accordingly if we have misunderstood the usual practice of the journal.

11. As requested, we clarified that Table 2 refers to VISION program exposures, as defined under the section describing “The VISION Project”.

12. We agree with the reviewer that the inclusion of interaction terms may contribute to the paper. Interaction was assessed during the analysis phase. However, no interaction terms were highly significant, and two were marginal at best. That being said, and given that we were not testing a hypothesis that involved interaction per se, and had no clear-cut rationale for including interaction terms in our model (based on preliminary analyses), we have omitted these findings from this paper.

13. Done

14. The reviewer asked why male and female use of condoms was different. Since we did not interviewing couples, and Nigerian males and females are known to have very different patterns of sexual behaviour, this was expected. We clarified in the methods section that only one person per selected household was interviewed (rather than couples).