# PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<u>see an example</u>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

## **ARTICLE DETAILS**

TITLE (PROVISIONAL)	Sero-prevalence of syphilis among HIV infected individuals in Addis
	Ababa, Ethiopia: A hospital based cross-sectional study
AUTHORS	Shimelis, T; Eticha, Begna; Sisay, Zufan; Alemayew, Addisu

# **VERSION 1 - REVIEW**

REVIEWER	Jason Ong School of Population Health/Sexual health unit The University of Melbourne Australia
REVIEW RETURNED	No competing interests 17-Jan-2013

THE STUDY	<ol> <li>Please give a reason why you are excluding those who are being treated for syphilis. You explained why you excluded those with CD4 &lt;50 but did not do so for those being treated for syphilis.</li> <li>For your hospital - (under methods) - could you comment on whether Syphilis testing is provided routinely? If not, why not? Is it a cost issue? Logistic issue? In certain countries (e.g. Australia), syphilis testing is offered at least every 3-6 monthly to all our HIV patients.</li> </ol>
	3) Some issues with grammar and spelling throughout the article - I found the reading of this a bit jarring at times. The article would benefit from someone screening through this properly before publication.
RESULTS & CONCLUSIONS	1) Although your main aim of your study is to look at various risk factors for those with HIV, you also make comparisons with those who are HIV negative. Your tables would benefit from having another column where you provide the odds ratio comparing the risk factor for HIV+ vs. HIV
	2) You talk about the p values for the age groups. A better statistical test is chi-square for trend. Please use this instead.
	3) You need a paragraph to talk about the limitations of the study. One of the major limitations that is not addressed is that your study may not be powered to detect the differences you were looking for. This is shown by the wide confidence intervals in your tables. For a future study, you will need to calculate the number needed to ensure you have enough power to detect the differences. Thus the fact that you did not find any differences in the risk factors in your HIV population may simply be due to the fact of the very small numbers in your study. This must be acknowledged in the limitations section before publication.

A minor limitation to discuss may be to include the
sensitivity/specificity of the tests employed - what is the likelihood of
a false +ve or -ve.

REVIEWER	Humphrey Misiri College of Medicine Uniiversity of Malawi Private Bag 360 Chichiri Blantyre3
REVIEW RETURNED	Malawi 05-Feb-2013

THE STUDY	There are no supplemental documents e.g. a CONSORT checklist, whichcontain information that should be better reported in the manuscript, or raise questions about the work.
GENERAL COMMENTS	The paper is clear. Methods are well explained and executed. The
	interpretation is okay and clear. The discussion is also okay.
	However, there are minor issues to be addressed.
	MINOR CORRECTIONS
	1. Strength and limitation of this study
	"This hospital based cross-sectional study provided preliminary data for further detailed information".
	The highlighted phrase must be paraphrased. Did the authors mean "preliminary data that would be a benchmark for future studies"? OR "preliminary data that would inform future research"
	2.Materials and methods
	<ul> <li>The sentence: "Result was summarized using descriptive statistics including mean, range and proportions" should be changed to "Results were summarized using descriptive statistics".</li> </ul>
	The sentence: "Difference in proportions was evaluated using Pearson's Chi-square test" should be changed to "Differences between proportions were evaluated using Pearson's Chi-square test."
	<ul> <li>The sentence: "Odds ratio was used as a measure of the strength of association." should be changed to "The Odds ratio was used as a measure of association".</li> </ul>
	3. References:
	The authors should stick to the reference style used BMJ Open.
	<ul> <li>Reference 12 has to be properly formatted. ""Sixth report" has to be changed to "Sixth Report"</li> </ul>

4.Tables:
All tables should be properly formatted. The authors may get a clue from papers published by BMJ Open.

#### **VERSION 1 – AUTHOR RESPONSE**

Reviewer 1 (Jason Ong)

Comment 1: Please give a reason why you are excluding those who are being treated for syphilis. You explained why you excluded those with CD4 <50 but did not do so for those being treated for syphilis.

Response: We have now given a reason in the MS why we excluded those treated for syphilis.

Comment 2: For your hospital - (under methods) - could you comment on whether Syphilis testing is provided routinely? If not, why not? Is it a cost issue? Logistic issue? In certain countries (e.g. Australia), syphilis testing is offered at least every 3-6 monthly to all our HIV patients.

Response: syphilis screening is not provided routinely for HIV infected patients in Ethiopia, which might be due to cost issue. The national guide line recommends the need to screen HIV patients for other infections (e.g. hepatitis B virus), but syphilis has not been given a priority.

Comment 3: Some issues with grammar and spelling throughout the article - I found the reading of this a bit jarring at times. The article would benefit from someone screening through this properly before publication.

Response: The MS has now been edited to our best.

Comment 4: Although your main aim of your study is to look at various risk factors for those with HIV, you also make comparisons with those who are HIV negative. Your tables would benefit from having another column where you provide the odds ratio comparing the risk factor for HIV+ vs. HIV-.

Response: In table 3, we had tried to present the odds of having syphilis in those with and without risk factors for syphilis in either HIV sero-group. As we have no intention to look at risk factors for HIV infection, your advice to compare the risk factor for HIV+ vs. HIV- is not clear for us.

Comment 5: You talk about the p values for the age groups. A better statistical test is chi-square for trend. Please use this instead.

Response: Your comment is well taken and we have now used chi-square for trend.

Comment 6: You need a paragraph to talk about the limitations of the study. One of the major limitations that is not addressed is that your study may not be powered to detect the differences you were looking for. This is shown by the wide confidence intervals in your tables. For a future study, you will need to calculate the number needed to ensure you have enough power to detect the differences. Thus the fact that you did not find any differences in the risk factors in your HIV population may simply be due to the fact of the very small numbers in your study. This must be acknowledged in the limitations section before publication.

A minor limitation to discuss may be to include the sensitivity/specificity of the tests employed - what is the likelihood of a false +ve or -ve.

Response: we have now described the limitations of the study at the 5th paragraph of the discussion section

### C. Reviewer 2 (Humphrey Misiri)

The paper is clear. Methods are well explained and executed. The interpretation is okay and clear. The discussion is also okay. However, there are minor issues to be addressed.

## MINOR CORRECTIONS

Comment 1: Strength and limitation of this study

"This hospital based cross-sectional study provided preliminary data for further detailed information". The highlighted phrase must be paraphrased. Did the authors mean "preliminary data that would be a benchmark for future studies"? OR "preliminary data that would inform future research"

Response: We have modified the sentence according to your advice.

#### Comment 2: Materials and methods

- The sentence : "Result was summarized using descriptive statistics including mean, range and proportions" should be changed to "Results were summarized using descriptive statistics".
- The sentence: "Difference in proportions was evaluated using Pearson's Chi-square test" should be changed to "Differences between proportions were evaluated using Pearson's Chi-square test."
- The sentence : "Odds ratio was used as a measure of the strength of association." should be changed to "The Odds ratio was used as a measure of association".

Response: Your comments are well taken and revision has been made accordingly.

#### Comment 3: References:

- The authors should stick to the reference style used BMJ Open.
- Reference 12 has to be properly formatted. ""Sixth report" has to be changed to "Sixth Report"

Response: the references style has been edited to fit BMJ Open.

### Comment 4: Tables:

All tables should be properly formatted. The authors may get a clue from papers published by BMJ Open.

Response: We have now made some modification.

# **VERSION 2 – REVIEW**

REVIEWER	Dr. Jason Ong MBBS, FRACGP, MMed, PhD Candidate School of Population Health/Sexual health unit The University of Melbourne Australia.
REVIEW RETURNED	27-Feb-2013

- The reviewer completed the checklist but made no further comments.