

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Effectiveness of linkage to care and prevention interventions following HIV Self-testing: a global systematic review and meta-analysis protocol
AUTHORS	Bain, Luchuo; Amu, Hubert; Dowou, Robert Kokou; Memiah, Peter; Agbor, Valirie Ndip

VERSION 1 – REVIEW

REVIEWER	Ortblad, Katrina University of Washington , Department of Global Health
REVIEW RETURNED	04-Nov-2021

GENERAL COMMENTS	<p>OVERALL: This is an important topic for review, as understanding the effective of different linkage to care interventions that have been paired with HIV self-testing (HIVST) to increase access and uptake of treatment and prevention services could help guide the future implementation and scale-up of these interventions. However, there are a number of things missing from this protocol that the authors should consider adding. First, in addition to measuring linkage to treatment interventions following HIVST for those that test HIV-positive, the authors should also consider including linkage to prevention interventions, especially considering that the majority of individuals that will complete HIVST will self-test HIV-negative. Additionally, the review protocol is currently missing specifications of the outcomes (primary and secondary) that the authors hope to capture/measure from this review, as well as any specifications of the groups they plan to stratify these outcomes by. Finally, this protocol is missing some concluding/discussion section that outlines the importance of this review on informing policy making, guideline setting, and the future research agenda.</p> <p>MAJOR:</p> <ul style="list-style-type: none"> • (Background, overall): Ideas here could be refined to more directly focus on the review of interest. The ideas appear to Zoom way and then way in. A more targeted introduction could enhance the motivation for the review. • (Overall): There is real potential here to also add linkage to HIV prevention services (e.g., PrEP, behavioral intervention) among individuals that test HIV-negative with HIVST, not just linkage to treatments services (e.g., ART) among those that test HIV-positive. This is currently missing from the review. • (Methods): In addition to randomized trials, the authors might also consider including case studies or studies that capture values and preferences related to linkage to care models.
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	<ul style="list-style-type: none"> • (Methods): The outcomes (primary and secondary) that the authors plan on extracting are not clearly defined. The authors should consider adding this a subsection to this protocol. • (Methods): A description of stratifications that the findings will be organized by is not included in this protocol. • (Conclusion): There is no discussion/conclusion section at the end of this protocol that outlines what the potential for implications for this review on policy, guideline setting, and the future research agenda are. <p>MINOR:</p> <ul style="list-style-type: none"> • (Abstract, introduction): Consider implications on linkage to services for both those that test positive (ART) and those that test negative (PrEP). • (Background, introduction): Consider also evaluating linkage to PrEP services among those that test HIV-negative. • (Background, Page 7, Lines 9-16): This information on MSM and FSWs seems out of place and could be better integrated with the rest of the framing of the introduction. • (Methods, search strategy): How did you select the timeframe of interest (Jan 2000 to Jun 2021) – HIV self-testing services only became widely available a few years ago, so not sure the value of including these earlier years in the review. • (Methods, search strategy): Can you clarify what gray literature you are hoping to capture from ReserachGates and Google Scholar that would not be captured in the main review?
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REVIEWER	Mandi, Henshaw Coalition for Epidemic Preparedness Innovations, Vaccine research and development
REVIEW RETURNED	13-Jan-2022

GENERAL COMMENTS	<ol style="list-style-type: none"> 1. This is an important protocol paper that will provide scientific evidence on strategies to improve self-test HIV patients' linkage to care. 2. Inclusion criteria: Age limit: Is there any rationale for the cutoff at 15 years? This is not mentioned in the background. 3. Inclusion criteria: Duplicate studies: Could the authors be more specific as to what they mean as most recent findings or larger sample size. Some precision needed. 4. Authors should watch out for small grammatical errors and improve language fluency of the manuscript. 5. 4. I strongly recommend the authors to read this paper and make sure it is not similar to their manuscript 'The effects of HIV self-testing on the uptake of HIV testing, linkage to antiretroviral treatment and social harms among adults in Africa: A systematic review and meta-analysis.' https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0245498
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Comments to the Author:

OVERALL: This is an important topic for review, as understanding the effective of different linkage to care interventions that have been paired with HIV self-testing (HIVST) to increase access and uptake of treatment and prevention services could help guide the future implementation and scale-up of these interventions. However, there are a number of things missing from this protocol that the authors

should consider adding. First, in addition to measuring linkage to treatment interventions following HIVST for those that test HIV-positive, the authors should also consider including linkage to prevention interventions, especially considering that the majority of individuals that will complete HIVST will self-test HIV-negative. Additionally, the review protocol is currently missing specifications of the outcomes (primary and secondary) that the authors hope to capture/measure from this review, as well as any specifications of the groups they plan to stratify these outcomes by. Finally, this protocol is missing some concluding/discussion section that outlines the importance of this review on informing policy making, guideline setting, and the future research agenda.

Response: We have modified the protocol to incorporate the reviewer's comments.

MAJOR:

Comment: (Background, overall): Ideas here could be refined to more directly focus on the review of interest. The ideas appear to Zoom way and then way in. A more targeted introduction could enhance the motivation for the review.

Response: The background has been modified to become more targeted as recommended.

Comment: (Overall): There is real potential here to also add linkage to HIV prevention services (e.g., PrEP, behavioral intervention) among individuals that test HIV-negative with HIVST, not just linkage to treatments services (e.g., ART) among those that test HIV-positive. This is currently missing from the review.

Response: We appreciate the suggestion. We have focused in the review on linkage to HIV treatment and PrEP. We have modified the manuscript to incorporate these changes.

Comment: (Methods): In addition to randomized trials, the authors might also consider including case studies or studies that capture values and preferences related to linkage to care models.

Response: We appreciate the reviewer's suggestion. However, we intend to keep the review focus on quantifying the benefits of these interventions on linkage to HIV treatment and PrEP.

Comment: (Methods): The outcomes (primary and secondary) that the authors plan on extracting are not clearly defined. The authors should consider adding this a subsection to this protocol.

Response: We have clarified this. Please, see methods/data item and extraction

Comment: (Methods): A description of stratifications that the findings will be organized by is not included in this protocol.

Response: The results will be reported overall and by subgroup in case of heterogeneity. Please, see Methods/Data synthesis and analysis/paragraph 2: "subgroup analysis using the following variables: trial design, female proportion, WHO region, and median age of study population."

Comment: (Conclusion): There is no discussion/conclusion section at the end of this protocol that outlines what the potential for implications for this review on policy, guideline setting, and the future research agenda are.

Response: The editor indicated that conclusions are not required for protocols according to the journal's requirement, reason why a conclusion section was not included.

***Comment from the Editor: Please note that conclusion sections are not part of journal formatting requirements for protocol articles.

MINOR:

Comment: (Abstract, introduction): Consider implications on linkage to services for both those that test positive (ART) and those that test negative (PrEP).

Response: We have edited the abstract and introduction accordingly.

Comment: (Background, introduction): Consider also evaluating linkage to PrEP services among those that test HIV-negative.

Response: Addressed as recommended.

Comment: (Background, Page 7, Lines 9-16): This information on MSM and FSWs seems out of place and could be better integrated with the rest of the framing of the introduction.

Response: This has been deleted.

Comment: (Methods, search strategy): How did you select the timeframe of interest (Jan 2000 to Jun 2021) – HIV self-testing services only became widely available a few years ago, so not sure the value of including these earlier years in the review.

Response: The search will span from 2010 onwards. The search strategy has been revised accordingly.

Comment: (Methods, search strategy): Can you clarify what gray literature you are hoping to capture from ReserachGates and Google Scholar that would not be captured in the main review?

Response: It is impossible to be specific because this will differ on a case-by-case basis. However, we will be looking for papers that exactly match the topic of our review but have not been published in a peer-review journal.

Reviewer: 2

Comments to the Author:

Comment: Inclusion criteria: Age limit: Is there any rationale for the cutoff at 15 years? This is not mentioned in the background.

Response: We assume that persons aged 15 and above should be capable of making informed decisions to link to care and prevention or not. Elsewhere, management models for pediatric patients are slightly different from treatment protocols for adults.

Comment: Inclusion criteria: Duplicate studies: Could the authors be more specific as to what they mean as most recent findings or larger sample size. Some precision needed.

Response: It is usually possible for authors to publish more than once using data from the same study. If there are multiple publications from the same data that meet our eligibility criteria, we will consider the publication that is most recent or with the largest sample size.

Comment: Authors should watch out for small grammatical errors and improve language fluency of the manuscript.

Response: The manuscript has been revised to improve grammar and fluency.

Comment: I strongly recommend the authors to read this paper and make sure it is not similar to their manuscript 'The effects of HIV self-testing on the uptake of HIV testing, linkage to antiretroviral treatment and social harms among adults in Africa: A systematic review and meta-analysis.'

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0245498>

Response: We are doing a global systematic review and meta-analysis. The systematic review presented above focused mainly on sub-Saharan Africa. In addition, we will be assessing benefits on HIV prevention services through PrEP globally.