

## 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

<b>TITLE (PROVISIONAL)</b>	Combating Antibiotic Resistance using Guidelines and Enhanced Stewardship in Kenya: A protocol for an Implementation Science Approach
<b>AUTHORS</b>	Gitaka, Jesse; Kamita, Moses; Mureithi, Dominic; Ndegwa, Davies; Masika, Moses; Omuse, Geoffrey; Ngari, Moses; Makokha, Francis; Mwaura, Peter; Mathai, Ronald; Muregi, Francis; Mwau, Matilu

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Larissa May University of California Davis, USA
<b>REVIEW RETURNED</b>	07-May-2019

<b>GENERAL COMMENTS</b>	<p>This is an extremely important study to be undertaken, with the potential for great impact and to be of great interest to global readers. I do have some comments for consideration. In many sections there are limited details on methods. In particular, this study protocol is proposed as an implementation science study with a pre implementation and implementation phase however seems more like a QI project with PDSA cycles and collaborative learning. It is unclear which conceptual frameworks from the implementation science literature are being used.</p> <p>The entire manuscript would benefit from proofreading for spelling and grammar.</p> <p>What is the difference between establishing ASP and developing guidelines? These are presented as separate processes however guideline adaptation should be part of the implementation science approach and included in the development/implementation of ASP. Please define "stepwise implementation"</p> <p>How will evidence be included in the guidelines?</p>
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<b>REVIEWER</b>	Linus OLSON DEPT OF PUBLICHEALTH SCIENCES, KAROLINSKA INSTITUTET, SWEDEN Doing AMR studies in Vietnam and South east asia
<b>REVIEW RETURNED</b>	09-May-2019

<b>GENERAL COMMENTS</b>	<p>Dear Authors</p> <p>A minor comment from start is that you talk about global problem and issue and local issue but only have ref from very local Kenya ons, I suggest that you get some new from CDC, ECDC and other</p>
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	<p>global areas(e.g. middle-east, Asia, israel, to have a better picture both for yourself and for the reader in the introduction. Much to short conclusion and discussion part of the paper compared to the size and information too be collected. To have enough evidence between title and discussion is not suffice even though the results are good the title is somewhat not what is shown in the paper/protocol in general as it is more of a survey and setup rather than...</p> <p>The reviewer provided a marked copy with additional comments. Please contact the publisher for full details.</p>
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## VERSION 1 – AUTHOR RESPONSE

Reviewer(s)' Comments to Author:

Reviewer: 1

Reviewer Name: Larissa May

Institution and Country: University of California Davis, USA

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below

This is an extremely important study to be undertaken, with the potential for great impact and to be of great interest to global readers. I do have some comments for consideration. In many sections there are limited details on methods. In particular, this study protocol is proposed as an implementation science study with a pre implementation and implementation phase however seems more like a QI project with PDSA cycles and collaborative learning. It is unclear which conceptual frameworks from the implementation science literature are being used.

The study will use reach, effectiveness, adoption, implementation and maintenance (RE-AIM) conceptual framework. This has been explained in the manuscript.

The entire manuscript would benefit from proofreading for spelling and grammar.

This has been done, one of the co-authors (MN) reviewed and corrected any for English mistakes.

What is the difference between establishing ASP and developing guidelines? These are presented as separate processes however guideline adaptation should be part of the implementation science approach and included in the development/implementation of ASP.

Thank you for the comment. Indeed you are right. We presented them as separate steps in the project since they will also take place at separate times during the actualization of the project.

Please define "stepwise implementation"

The term has been defined.

How will evidence be included in the guidelines?

The evidence will be used to guide any improvement that is needed in the guideline as mentioned in the design section and abstract section.

Reviewer: 2

Reviewer Name: Linus OLSON

Institution and Country: DEPT OF PUBLICHEALTH SCIENCES, KAROLINSKA INSTITUTET, SWEDEN

Please state any competing interests or state 'None declared': Doing AMR studies in Vietnam and South east asia

Please leave your comments for the authors below

Dear Authors

A minor comment from start is that you talk about global problem and issue and local issue but only have ref from very local Kenya ons, I suggest that you get some new from CDC, ECDC and other global areas(e.g. middle-east, Asia, israel, to have a better picture both for yourself and for the reader in the introduction.

Appropriate references added to reflect the global and local antimicrobial resistance picture.

Much to short conclusion and discussion part of the paper compared to the size and information too be collected. To have enough evidence between title and discussion is not suffice even though the results are good the title is somewhat not what is shown in the paper/protocol in general as it is more of a survey and setup rather than...

Thank you for the comments. The sections have been expanded appropriately.

## VERSION 2 – REVIEW

<b>REVIEWER</b>	Linus Olson Dept of public health sciences, Karolinska Institutet, Sweden
<b>REVIEW RETURNED</b>	21-Aug-2019

<b>GENERAL COMMENTS</b>	The manuscript have become much better but the references are still not up to date and many more should be included to make this a good paper that can attract many policymakers and researchers attention. The EC approvals both the bigger one and on local level
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	<p>is missing, and this is okay if the study have not started for the local ones but since its mentioned in the article that is have been started this is not okay. Please update. I have attached a file with suggestions.</p> <p>Dates are not correct please check.</p> <p>I think this should be published soon and implemented therefor please take time and revise it. DO you have and international persons outside the team to consult? preferable in welcome trust in england since one of the coauthors are working for them.</p> <p>When do you intend to start?</p> <p>Sample size and statistics are now much better in place. Please review the data management.</p> <p>In dissemination tell what type of peer review journals like BMJ or other you intent to do this at.</p> <p>Please make the contribution part more specific since it now is very small and not up to international standards of 2019, but how it used to look 10 years ago.</p> <p>good luck and hope to see this article soon published.</p> <p>The reviewer provided a marked copy with additional comments. Please contact the publisher for full details.</p>
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## VERSION 2 – AUTHOR RESPONSE

Reviewer(s)' Comments to Author:

Reviewer: 2

Reviewer Name: Linus Olson

Institution and Country: Dept of public health sciences, Karolinska Institutet, Sweden

Please state any competing interests or state 'None declared': None

Please leave your comments for the authors below

The manuscript have become much better but the references are still not up to date and many more should be included to make this a good paper that can attract many policymakers and researchers attention.

Thank you for your comments. More references have been added.

The EC approvals both the bigger one and on local level is missing, and this is okay if the study have not started for the local ones but since its mentioned in the article that is have been started this is not okay. Please update. I have attached a file with suggestions.

Thank you. This has been noted and EC approval details have been updates where approval has been granted.

Dates are not correct please check.

I suppose you mean the dates in the timeline. If so, we have updated the dates accordingly.

I think this should be published soon and implemented therefore please take time and revise it. DO you have and international persons outside the team to consult? preferable in welcome trust in england since one of the coauthors are working for them.

Yes, we have. We are in touch with Dr. Andrew Seaton who is a consultant and a clinical associate professor, Queen Elizabeth University Hospital.

When do you intend to start?

The project got late to start due to some delays in receiving ethical clearances. However, we received the bigger ethical clearance late last year and we have so far started by establishing the antimicrobial stewardship committees in the participating hospitals.

Sample size and statistics are now much better in place. Please review the data management.

In dissemination tell what type of peer review journals like BMJ or other you intent to do this at.

Please make the contribution part more specific since it now is very small and not up to international standards of 2019, but how it used to look 10 years ago.

Thank you for the comments. This has been updated accordingly. On the issue of which journal to publish at, we suggest we keep it open. However, our project leader has a high preference in BMJ journals and thus we are intending to send our subsequent publications to BMJ.

good luck and hope to see this article soon published.