

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Evaluation of influenza surveillance systems in sub Saharan Africa: A systematic review protocol
AUTHORS	Sambala, Evanson; Ndwandwe, Duduzile; Mwayi, Love; Wiysonge, Charles

VERSION 1 – REVIEW

REVIEWER	Jean Joel Bigna Faculty of Medicine, University of Paris Sud
REVIEW RETURNED	20-Apr-2018

GENERAL COMMENTS	<p>I applaud the authors for wanting to do such an interesting review for an African context where a lot of data is missing and the quality of the data is not always accurate. Although this is a work that will be important, the manuscript is not clear on what the authors will investigate. It is unclear whether the authors will synthesize data on the evaluation of surveillance systems that collect data on the burden of influenza OR whether the authors will synthesize data on the burden of influenza in Africa. This should be clearly stated from the objectives, giving the specific objectives. This should also be clearly stated throughout the manuscript. Thus, the manuscript should be re-organized so that we understand what the authors will look for.</p> <p>My detailed comments are below:</p> <ol style="list-style-type: none">1) The title does not really say what the authors will do in their work. It would be more interesting to give a more elaborate title which indicates that the authors will examine the burden of influenza.2) I am concerned that a systematic review of the literature is required to evaluate influenza surveillance systems as authors can contact the Global Influenza Surveillance Network (GISN) of Africa. If there are already surveillance systems, this implies that one can have weekly reports at country-level. I would suggest to contact GISN to have more complete existing data.3) I am not sure that the point #4 of the Strengths and limitations paragraph is necessary. Reporting a protocol of a review following PRISMA-P guidelines is not a strength in my view point.4) I suggest to report detailed/specific objectives. I suggest to include terms like hospitalization, mortality, ...5) I was hoping that the authors would have registered the protocol in PROSPERO before submitting it for publication. The protocol should contain the registration number to PROSPERO.
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	<p>6) At the end of the reading of the manuscript, I have the strong impression that the authors will synthesize data on a small part of the evaluation of the influenza surveillance systems in Africa.</p> <p>The authors will determine the burden of influenza in Africa. I would suggest that the title reflects the estimate of the burden of influenza in Africa. The title is too vague.</p> <p>Through the manuscript, the authors must clearly demonstrate that their work will focus on the burden of influenza in Africa. Thus, they will avoid using the generic term "evaluate surveillance system" and be more specific.</p> <p>To evaluate a monitoring system, there are six broad groups of items to consider (https://www.cdc.gov/mmwr/preview/mmwrhtml/00001769.htm). The authors will study in their article only the first aspect: "Describe the public health importance of the health event".</p> <p>7) I doubt that this work can inform the health policy makers about the role of strengthening the surveillance systems. The study will just show the burden in Africa but will not study the systems in place that measure the burden of influenza in African countries.</p> <p>8) In the discussion section, the authors say that they will explore the tools used to collect data in the surveillance system; but none before in manuscript, the authors do not describe this objective.</p>
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REVIEWER	Elaine United States
REVIEW RETURNED	25-May-2018

GENERAL COMMENTS	<p>The written English requires a few edits.</p> <p>In the abstract, what do the authors mean by "hand searches?"</p> <p>Page 6 line 6-9 - This sentence is unclear.</p> <p>Page 5 line 8 - What is meant by quantifying influenzas?</p> <p>Page 8, line 49-50 - How would you translate studies in languages other than English?</p> <p>Page 11, line 24-28 - The authors should consider contacting Ministries of Health in Africa to learn about unpublished surveillance systems.</p>
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VERSION 1 – AUTHOR RESPONSE

Responses to reviewer comments	<p>We thank the reviewers for critically engaging with our manuscript, and for providing such extremely helpful and detailed comments. Thank you for the opportunity to amend the protocol and resubmit. We have considered the comments and made substantial changes to the protocol. We have maintained the core structure of the protocol and focused the revision specifically on the issues raised by the reviewers in each section of the proposed protocol. We have addressed each reviewers' comments point by point and taken the opportunity when revising this protocol to sharpen the writing and correct occasional typographic and other errors. The page numbers cited in our responses refer to the clean</p>
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version of the manuscript.	
Comments	Responses
Reviewer 1	
The title does not really say what the authors will do in their work. It would be more interesting to give a more elaborate title which indicates that the authors will examine the burden of influenza.	Thank you for your comment. We revised the title. "Evaluation of Influenza surveillance systems in Africa: A systematic review protocol" See title page. Page 1.
I am concerned that a systematic review of the literature is required to evaluate influenza surveillance systems as authors can contact the Global Influenza Surveillance Network (GISN) of Africa. If there are already surveillance systems, this implies that one can have weekly reports at country-level. I would suggest to contact GISN to have more complete existing data.	We will synthesis reports and studies narratively and through tabulations. As far as searching other resources are concerned we will utilize platforms such as the Global Influenza Surveillance Network (GISN). In the manuscript, we have included a section on searching other resources. "We will identify country eligible reports or preliminary analysis from respective National Influenza Centres and fluNet where surveillance data is shared. We will search the websites of relevant government's agencies, the WHO Global Influenza Surveillance and Response System (GISRS), Global Influenza Surveillance Network (GISN) and Global Influenza Programme (GIP). We will also search conference reports and abstracts from the African Network for Influenza Surveillance and Epidemiology (ANISE) and the Africa Flu Alliance Meeting" See page 9.
I am not sure that the point #4 of the Strengths and limitations paragraph is necessary. Reporting a protocol of a review following PRISMA-P guidelines is not a strength in my view point.	Thank you. We have removed this statement from the strength and limitations. Page 3.
I suggest to report detailed/specific objectives. I suggest to include terms like hospitalization, mortality, ...	Thank you. The objective of this study is evaluate the surveillance systems following the CDC recommendations. Our focus is to describe the public health importance of the surveillance system; the system itself under evaluation; resources to operate the system; usefulness of the surveillance system; design; evidence from the system; conclusion and recommendations; utilization of the findings and how these are shared as lessons learned. See section "Types of the outcomes measures" page 7 and 8
I was hoping that the authors would have registered the protocol in PROSPERO before submitting it for publication. The protocol should contain the registration number to PROSPERO.	Registration of the protocol with PROSPERO is under review. We have sent a reminder to Prospero. We hope to have this finalized soon.

<p>At the end of the reading of the manuscript, I have the strong impression that the authors will synthesize data on a small part of the evaluation of the influenza surveillance systems in Africa.</p> <p>The authors will determine the burden of influenza in Africa. I would suggest that the title reflects the estimate of the burden of influenza in Africa. The title is too vague.</p> <p>Through the manuscript, the authors must clearly demonstrate that their work will focus on the burden of influenza in Africa. Thus, they will avoid using the generic term "evaluate surveillance system" and be more specific.</p> <p>To evaluate a monitoring system, there are six broad groups of items to consider (https://www.cdc.gov/mmwr/preview/mmwrhtml/00001769.htm). The authors will study in their article only the first aspect: "Describe the public health importance of the health event".</p>	<p>Thank you for your suggestion. We believe we will comprehensively study all the aspects of the surveillance systems required for evaluation according to the CDC recommendations. We have given more details in the data synthesis section as shown below.</p> <p>"We will describe the surveillance performance system using the Centers for Disease Control (CDC) guidelines on evaluating public health surveillance systems. First developed in 1988 and updated in 2001, the guidelines ensures that the influenza surveillance system operate efficiently and effectively in meeting its intended purpose and objectives" Page 11 According to the CDC, any evaluation of the surveillance system must satisfy eight key tasks such as the description of the public health importance; system under evaluation; resources to operate the surveillance system; usefulness of the surveillance system; design; credible evidence of the system; conclusion and recommendations; utilization of the findings and how these are shared as lessons learned.</p> <p>A standard guideline form shown in Table 3 will be used to evaluate studies that describe influenza surveillance system including attributes that describe data quality of the surveillance systems. The data quality attributes that we will look at will comprise (i) Simplicity (i.e ease of operation), (ii) Flexibility (i.e. adapting to changing information such as case definitions), (iii) Data quality (i.e. completeness and validity) (iv) acceptability (i.e. willingness of staff to use the system), (v) sensitivity (i.e. timely detection of influenza), (vi) predictive value positive (i.e. proportion of true cases), (vii) representativeness (i.e. distribution in the population by place and person), (viii) timeliness (i.e. speed between steps in a public health surveillance system, (ix) stability (i.e., the ability to collect, manage, and provide data properly without failure. While disease surveillance systems should have credible evidence to maintain objectivity, not all the attributes mentioned above are important to all the surveillance studies due to variation in the surveillance methods, scope, purpose, and objectives.</p> <p>"To gauge the strength of these surveillance systems we will sum up the scores for each surveillance system using averages and percentages. In addition, we will also generate the predefined themes captured in the data collection form". Page 11.</p>
<p>I doubt that this work can inform the health policy makers about the role of</p>	<p>Our aim was not to show the burden of influenza. We have covered this aspect on the burden of influenza</p>

<p>strengthening the surveillance systems. The study will just show the burden in Africa but will not study the systems in place that measure the burden of influenza in African countries.</p>	<p>elsewhere and it is beyond the scope of this manuscript. The purpose of our study is to evaluate studies and reports that describes surveillance systems in Africa. We believe this study will identify gaps in the literature on the utility of the surveillance systems and based on our findings we will be able to highlight key direction for the future evaluation of the systems. We will measure the surveillance systems using the surveillance attributes discussed fully in the protocol.</p>
<p>In the discussion section, the authors say that they will explore the tools used to collect data in the surveillance system; but none before in manuscript, the authors do not describe this objective.</p>	<p>We refer to the categories of surveillance systems on page 6. See below “Types of studies to be included”.</p> <ul style="list-style-type: none"> • Virologic Surveillance e.g. public health and clinical laboratories that test specimens to understand when and where influenza viruses are circulating. • Outpatient Illness Surveillance e.g. patient visits to health care providers for influenza-like illness/ contact tracing • Mortality Surveillance e.g. influenza-associated deaths • Hospitalization Surveillance e.g. laboratory confirmed influenza-associated hospitalizations • Geographic spread of influenza e.g. no activity, sporadic, local, regional, or widespread.
<p>Reviewer 2</p>	
<p>The written English requires a few edits.</p>	<p>Thank you. During the revisions of this protocol, we took advantage to sharpen the writing and correct occasional typographic and other errors.</p>
<p>In the abstract, what do the authors mean by "hand searches?"</p>	<p>We revised the sentence as follows for clarity “Electronic database search will be followed by hand searching of reference lists of all relevant studies” Page 2, Method and analysis (abstract). Hand searching may involve checking the reference lists of studies and increases the likelihood that no major relevant studies will be missed.</p>
<p>Page 6 line 6-9 - This sentence is unclear.</p>	<p>Thank you for picking this up. We have now revised this sentence for clarity. We write “We considered all the 17 items in the PRISMA-P in order to facilitate the transparent and complete reporting of systematic reviews and meta –analysis” See page 11, section reporting of this review.</p>

Page 5 line 8 - What is meant by quantifying influenzas?	We have amended to “quantifying influenza”.
Page 8, line 49-50 - How would you translate studies in languages other than English?	Page 9/10, under the “Selection of studies” “We will translate words, phrases and web pages into English from other languages using google translation software”

VERSION 2 – REVIEW

REVIEWER	Jean Joel Bigna Centre Pasteur of Cameroon, Yaoundé, Cameroon
REVIEW RETURNED	05-Sep-2018
GENERAL COMMENTS	The manuscript is acceptable for publication.