PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	A scoping review of maternal and newborn health interventions and programs in Nigeria.
AUTHORS	Nasir, Naima; Aderoba, Adeniyi; Ariana, Proochista

VERSION 1 – REVIEW

REVIEWER	Oluoch-Aridi, Jackline Strathmore University, Institute of Healthcare Management
REVIEW RETURNED	18-Sep-2021

GENERAL COMMENTS	The first sentence requires revision for clarity and a citation to show the evidence for the assertion that Nigeria has higher maternal mortality than most countries globally. The search strategy needed more synonyms to maternal e.g women/ mothers.

REVIEWER	de Graft-Johnson, Joseph Save the Children, Department of Global Health
REVIEW RETURNED	25-Sep-2021

GENERAL COMMENTS	This is a very well written paper, the purpose, methods, findings and discussion are well presented. However, even though it is mentioned that "a novel model combining the WHO recommendations for MNH, the continuum of care and the social determinants of health frameworks" was used, and presented in Figure 2, it was no explicit description of the model in the main narrative. It will be useful for the authors to elaborate more on the model. This could be done with a brief description of Figure 2 under the sub-heading "Data charting and summary" in the method section. This will assist the reader to have a better understanding of the model. If the model has been described in depth in a separate publication then it should be cited here. I had difficulty understanding what the authors mean by alignment with WHO recommended interventions. Elaboration on the model and the various will address this difficulty. For example, by "WHO recommended interventions" are they referring to the clinical interventions for addressing maternal and newborn health or the approaches for delivering these interventions. Under "Results -line 45-48, it is stated that "Most of the publications reviewed (71%, n=57) reported interventions aligned with the WHO recommendations. The rest studies (29%, n=23) aimed to improve quality or standard of maternal and newborn health services mainly through capacity building of health providers...." Both quality improvement and capacity building of health workers are approaches recommended by WHO but it seems these were not

	classified as such. WHO has a set of quality improvement standards for MNH and are leading a community of practice on this intervention. A brief description of the model will address this confusion. Also in Table S1, the authors could use an asterisk or some other identifier to mark which interventions they classified as being aligned with WHO recommendation. This will also contribute to the understanding of how the interventions aligns with WHO recommendations. Addressing this concern is important as the authors call for researchers and policy-makers to consider using their framework to identify and address priorities in MNH service provision in the discussion section of the paper. Minor comments: 1. Introduction, line 13-14 Even though "with neonatal mortality rates below 12 deaths per 1000 live births" is factual correct, it will be better to write "below 4 deaths per 1000 live births" as both UK and USA have NMR below 4 per 1000 live births per estimates from the IGME - UN Inter-agency Group for Child Mortality Estimation. 2. Under the discussion section there is a repeat of the sentences "Country level researchers may be better posed to understand and highlight country-level priorities for MNH research. Of note, international collaborators led over a third of the research in this review. Going forward, we implore global health institutions to actively improve local research capacity and funding towards understanding country-level MNH priorities as articulated by the African Academy of Science105,106."	

VERSION 1 – AUTHOR RESPONSE

Reviewer 1	The first sentence requires revision for clarity and a citation to show the evidence for the assertion that Nigeria has higher maternal mortality than most countries globally.	We thank Reviewer 1 for these comments and for taking time to provide feedback. We have revised the first sentence for clarity and included citations (Page 4, line 86-87). The sentence aims to show the burden of maternal mortality in Nigeria is high when compared to most countries globally. The sentences following aim to support it by comparing it to other countries.
Reviewer 1	The search strategy needed more synonyms to maternal e.g women/ mothers.	In developing the search strategy, in PubMed we used "maternal" and "maternal health" as MeSH terms in PubMed as the this was the label used to index articles related to the health of women and mothers (i.e the term includes the words 'mother' and 'women'). This helped us to be more efficient in searching and account for any trends in terminology or lay terms. In other databases, we expanded the MeSH terms, so the search included all sub-types of the term "maternal".

Reviewer 2	This is a very well written paper, the purpose, methods, findings and discussion are well presented. However, even though it is mentioned that "a novel model combining the WHO recommendations for MNH, the continuum of care and the social determinants of health frameworks" was used, and presented in Figure 2, it was no explicit description of the model in the main narrative. It will be useful for the authors to elaborate more on the model. This could be done with a brief description of Figure 2 under the sub-heading "Data charting and summary" in the method section. This will assist the reader to have a better understanding of the model. If the model has been described in depth in a separate publication then it should be cited here.	We thank the reviewer for these comments. We have included a description of Figure 2 in the data charting and summary section for clarity (Line 185-193, Page 7). We confirm the model has not been described elsewhere.
	I had difficulty understanding what the authors mean by alignment with WHO recommended interventions. Elaboration on the model and the various will address this difficulty. For example, by "WHO recommended interventions" are they referring to the clinical interventions for addressing maternal and newborn health or the approaches for delivering these interventions. Under "Results -line 45-48, it is stated that "Most of the publications reviewed (71%, n=57) reported interventions aligned with the WHO recommendations. The rest studies (29%, n=23) aimed to improve quality or standard of maternal and newborn health services mainly through capacity building of health providers...." Both quality improvement and capacity building of health workers are approaches recommended by WHO but it seems these were not classified as such. WHO has a set of quality improvement standards for MNH and are leading a community of practice on this intervention. A brief description of the model will address this confusion.	The model combines WHO's consensus recommendations of mainly clinical (and some non-clinical interventions) for maternal and newborn health as outlined in the guidelines issued in 2011 and 2017 which we have cited. By alignment, we mean we assessed whether interventions described in the included studies were in line (or even the same) with any of the WHO recommended interventions outlined in the guidelines cited. As the reviewer notes, we recognize the WHO does recommend other approaches such as quality improvement, which were not explicitly stated in the guidelines used in the model. We have revised the finding to reflect this.
	Also in Table S1, the authors could use an asterisk or some other identifier to mark which interventions they classified as being aligned with WHO recommendation. This will also contribute to the understanding of how the interventions aligns with WHO recommendations. Addressing this concern is important as the authors call for researchers and policy-makers to consider using their framework to identify and address priorities in MNH service provision in the discussion section of the paper.	
Reviewer 2	Introduction, line 13-14 Even though "with neonatal mortality rates below 12 deaths per 1000 live births" is factual correct, it will be better to write "below 4 deaths per 1000 live births" as both UK and USA have NMR below 4 per 1000 live births per estimates from	We have revised the sentence as suggested.

	the IGME - UN Inter-agency Group for Child Mortality Estimation.	
Reviewer 2	Under the discussion section there is a repeat of the sentences "Country level researchers may be better posed to understand and highlight country-level priorities for MNH research. Of note, international collaborators led over a third of the research in this review. Going forward, we implore global health institutions to actively improve local research capacity and funding towards understanding country-level MNH priorities as articulated by the African Academy of Science105,106."	We have re-written the sentence for clarity and to resolve the repeat of sentences.