

Review of: "A Systematic Review of Antibiotic Use in Humans in Nigeria and Its Potential Contribution to Rising Antimicrobial Resistance"

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Potential competing interests: No potential competing interests to declare.

The manuscript addresses a critical public health issue. The paper seeks to systematically review the patterns of antibiotic use in Nigeria and claims to explore the potential links to the alarming rise in antimicrobial resistance (AMR). This work is of significant importance, given the global health threat posed by AMR and the specific challenges faced by developing nations like Nigeria. While the manuscript has considerable potential to contribute meaningfully to the field, there are a few areas where improvements are necessary to enhance the rigor, clarity, and overall impact of the study.

1. The title of the manuscript suggests a comprehensive exploration of the "Potential Contribution to Rising Antimicrobial Resistance," yet the content of the paper does not fully support this claim. The manuscript lacks a thorough examination of AMR data, which is crucial for substantiating the link between antibiotic use and the rise in resistance. This disconnect between the title and the manuscript's content could lead to reader misinterpretation and diminishes the overall impact of the paper. To align the title with the content, the manuscript should either include a more detailed analysis of AMR data and its correlation with antibiotic use in Nigeria, or the title should be adjusted to more accurately reflect the primary focus of the study. If data on AMR is limited, the authors should discuss this as a significant limitation and suggest it as an area for future research.
2. The manuscript limits its scope to data from studies conducted between 2000 and 2017, despite the fact that the Nigerian National Action Plan (NAP) on AMR was introduced in 2017. This temporal limitation raises concerns about the relevance and comprehensiveness of the review, especially in understanding the current state of antibiotic use and AMR trends in Nigeria post-NAP implementation. The exclusion of more recent data potentially undermines the conclusions drawn and may not fully capture the effectiveness of interventions introduced in recent years. It is recommended that the authors extend their review to include studies and data up to the present year. If recent studies are unavailable, this gap should be explicitly acknowledged in the manuscript, along with a discussion of the implications for the study's findings and conclusions. Additionally, the authors should provide a robust justification for the chosen timeframe, addressing why data post-2017 was not included.
3. The objectives presented in the introduction are somewhat ambiguous and do not provide a clear roadmap for the reader. Currently, it is unclear whether the review aims to quantify antibiotic use, assess the effectiveness of policy interventions, or establish a direct link between antibiotic use and AMR trends. The authors should refine the objectives of the study, making them more specific and measurable. Clear objectives should delineate whether the

focus is on quantifying antibiotic use, evaluating the impact of national policies, or investigating the correlation between antibiotic use and AMR.

3. The manuscript currently lacks a clear articulation of its novelty and unique contribution to the field of AMR research. While the topic itself is important, the manuscript does not sufficiently differentiate itself from existing reviews or studies on antibiotic use in the developing world. It is essential for the authors to clearly state what new insights this review offers—whether it be through a novel methodological approach, a more comprehensive synthesis of data, or the identification of previously unrecognized patterns or gaps in the literature. Authors should explicitly articulate the novelty of their review in both the abstract and the introduction. This could include highlighting unique aspects of the methodology, the scope of data included, or specific insights that this review brings to the broader discourse on AMR. Such clarification will help position the study as a significant contribution to the field.
1. The methodology section of the manuscript lacks sufficient detail regarding the specific methods employed in the studies reviewed, particularly in relation to antibiotic detection, quantification, and AMR surveillance. Understanding these methodologies is crucial for assessing the reliability and validity of the findings presented in the review. Without this information, the reader is left to question the robustness of the data synthesis and the conclusions drawn.
2. The discussion section is currently lacking in depth and critical analysis. It does not sufficiently engage with the data or explore the broader implications of the findings for public health policy, particularly in the context of Nigeria. Moreover, the discussion does not adequately address potential inconsistencies or gaps in the data, which are critical for a balanced and thorough analysis. The authors should explore the implications of their findings for public health policy, considering how these insights could inform future interventions aimed at controlling antibiotic use and combating AMR in Nigeria. Additionally, the authors should critically evaluate any limitations of their review and propose directions for future research to address these gaps.
7. While the manuscript addresses an important topic, the overall coherence and flow of the narrative could be improved. At times, the sections feel somewhat disjointed, and the transitions between topics could be smoother. This occasionally disrupts the flow of information, making it slightly more challenging for readers to follow the argument and fully grasp the implications of the findings.