

Peer Review Report

Peer Review of “Establishing Antimicrobial Resistance Surveillance in the Water and Environment Sector in a Resource-Limited Setting: Methodical Qualitative and Quantitative Description of Uganda’s Experience From 2021 to 2023”

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KEYWORDS

antimicrobial resistance; surveillance system; water and environment sector

This is a peer-review report submitted for the paper “Establishing Antimicrobial Resistance Surveillance in the Water and Environment Sector in a Resource-Limited Setting: Methodical Qualitative and Quantitative Description of Uganda’s Experience From 2021 to 2023”

Round 1 Review

Specific Comments

Major Comments

This paper [1] describes:

1. A stepwise and governmental approach for establishing antimicrobial resistance (AMR) surveillance in the environment and aquatic sector in a country with a resource-limited setting. This includes leveraging on previous experiments in the human and animal sector, and experimental methodology, namely, conventional culture-based bacteriology techniques, which is aligned with the current available equipment and infrastructure at the country scale.
2. The rationality of the passive and active monitoring was well presented and discussed. The quantification of antimicrobial susceptibility in priority microbial isolates were major findings in the study area, as they may cause a silent but life-threatening pandemic. However, no indicator was presented for the assessment of the limitation of the generated AMR data and the scale resolution associated the monitoring sites and sampling locations as well as experimental methodologies.
3. It also lacks a numerical comparison between the AMR values reported for the microbial isolates collected from

point sources and nonpoint sources. The readability of the text is very satisfactory; however, there are still some parts that could be further improved!

Minor Comments

1. The Objective section was missed in the structured abstract.
2. The abbreviations should be relocated before the reference section.
3. The map of the study area with the georeferenced location of the monitoring sites along with the compactness of the surveillance site per unit of area were not presented!
4. No indicator was presented for the assessment of the limit of generated AMR data.
5. Comparisons of many AMR values are reported to be similar to other studies, while a significant difference as high as two times was noticed during the peer review. It is recommended to include the values from other studies in the table to facilitate the comparison. Rewrite this section.
6. Some points like “The program needs to be consolidated and expanded to include more sentinel sites, sample types, advanced AMR surveillance methodologies and techniques, and the surveillance of antimicrobial residues” presented in the conclusions are not supported in the main area of the paper.
7. Some information in the abstract, like 27% (n=160) of recovered isolates exhibited multidrug resistance and extensive drug resistance, was never presented in the main text.
8. The Data Analysis section was totally unclear to me. Mainly, I cannot understand what steps were taken to analyze the data. It is recommended that the author adds some description with regard to that.

Conflicts of Interest

None declared.

Reference

1. Katumba G, Mwanja H, Mayito J, Mbolanyi B, Isaasi F, Kibombo D, et al. Establishing antimicrobial resistance surveillance in the water and environment sector in a resource-limited setting: methodical qualitative and quantitative description of Uganda's experience from 2021 to 2023. JMIRx Bio. 2024. [doi: [10.2196/50588](https://doi.org/10.2196/50588)]

Abbreviations

AMR: antimicrobial resistance

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