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Dr. Matilda Kamara is a medical doctor with experience in research and public health. She is from Freetown, Sierra Leone, West Africa. She currently works at the Connaught Hospital, University of Sierra Leone Teaching Hospital Complex as a House Officer and at The Infectious Disease Research Unit, College of Medicine and Allied Health Sciences, University of Sierra Leone, as a Research Assistant. Hailing from a data-rich but information-poor country, and with exposure to how vital information can contribute to the development of health systems in Sierra Leone, Matilda gained much interest in clinical research and is enthusiastic about making contributions towards clinical research and the development of a vibrant health system in Sierra Leone. A key area of focus in her research career has been Antimicrobial Resistance and Antimicrobial Stewardship. She is working towards making significant contributions to the fight against Antimicrobial Resistance. Matilda has always been passionate about women and maternal health and intends to pursue a career in this field. She believes she can make the most impact through mentorship, hence her goal of tutoring a younger generation of researchers globally. She has adapted these three phrases to navigate in life, "Learning is a process", "Be open don't judge", and "Teamwork makes the dream work". Her most valuable asset is family.

Project

Antibiotic Use and Resistance in a Slum Community in Freetown: An Analysis of Gender Intersectionality in a Human-Environment Interface

Background: Antimicrobial resistance (AMR) is a growing public health problem. In a recent global estimate, bacterial AMR alone is responsible for 1.27 million deaths worldwide, with the highest death rates in West Africa. Many low-income countries, such as Sierra Leone, do not have sufficient resources to undertake interventions to prevent AMR. Gender intersectionality is a recent way to understand complex health issues such as the gaps in AMR prevention, as it describes how systems of inequality and other forms of discrimination "intersect" to create unique dynamics and effects, particularly on health.

Despite the relevance of gender intersectionality with other demographic, social, and economic dimensions in AMR prevention, a PubMed search on October 10, 2023, using the term 'gender intersectionality in antimicrobial resistance' revealed only two articles and none reported information on gender intersectionality in the context of one health, including environmental interplay. This project will address this gap by leveraging the one health platform to understand antibiotic self-prescription and perception of AMR among residents of a slum community and determine the load of resistant Escherichia coli isolated from the drinking water sources in this community.

Methods: The project will use a mixed method (qualitative and quantitative) with a timeline spanning 12 months (January 2024 to December 2024) in the largest slum community in Freetown, Sierra Leone. Twenty community members will undergo key informant interviews to assess their perceptions of AMR, and 185 slum community residents will be assessed to understand the self-prescription of antibiotics. Nine drinking water sources have been mapped to determine levels of antibiotic-resistant E. coli. Qualitative data will be analysed using NVivo, and quantitative data will be analysed using SPSS.

Aim: This project will address gender intersectionality in antimicrobial resistance by leveraging the one health platform to understand antibiotic self-prescription and perception of AMR among residents of a slum community and determine the load of resistant Escherichia coli isolated from their drinking water sources.