

## George Limwado

*Partners in Health, Malawi*

George Dalitso Limwado is a senior medical doctor responsible for secondary care and medical education at Partners in Health – Malawi, a global health and social justice organization that responds to the moral imperative to provide high-quality health care globally to those who need it most. He is an upcoming researcher with an interest in healthcare systems especially in improving the quality of services and improving patient-centered care in both communicable and non-communicable diseases.

He aspires to pursue postgraduate training in Health Systems Strengthening i.e., Health Economics or Global Health or Health Systems Management to gain knowledge, skills, and abilities to successfully address problems of democratic governance in public administration at the local, provincial, and national levels. He is enthusiastic about antimicrobial resistance and loves engaging in activities surrounding this subject to deepen his knowledge about it. Before joining Partners in Health, he worked as a senior Medical Officer for the Ministry of Health at Salima District Hospital. While at Salima he led a successful District Mentorship Project aimed at improving maternal and neonatal health through a Global Affairs Canada-funded Integrated Pathways for Improving Maternal, Newborn and Child Health (InPATH) Project. He also served as a district hospital management team lead, responsible for administrative support functions.

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## Project

### **Prevalence of antibiotic self-medication and knowledge of antimicrobial resistance among community members in rural Malawi: a cross-sectional study**

Antibiotics have been widely hailed as one of the greatest medical breakthroughs of the twentieth century for their ability to treat bacterial-related illnesses on a global scale. However, the improper use of antibiotics through practices such as self-medication, misdiagnosis, excessive dosages, prolonged use, incorrect drug selection, and dependence or abuse has led to a rise in antibiotic resistance diseases over the years.

Overusing antibiotics through self-medication and overdosing is a significant contributing factor to the antibiotic resistance crisis. This, in turn, has resulted in extended hospital stays, elevated medical expenses, and a rise in mortality rates. Sub-Saharan Africa faces a more severe situation concerning antimicrobial resistance (AMR), as estimated in 2019, with the region recording the highest mortality rate (23.5 deaths per 100,000) attributed to AMR compared to other regions. The significant implications of this situation extend to the health, economic, and social welfare of individuals in numerous lower and middle-income countries (LMICs).

In a systematic review of 34 studies done in LMICs, a pooled self-medication prevalence of 38.8% (95% CI: 29.5 – 48.1) was reported. The review also identified factors associated with self-medication including limited access to recognized healthcare facilities, improper advertising, medical knowledge and illnesses, inadequate healthcare personnel, insufficient drug supplies at

the facility, and the proximity of uncertified drug retail shops to one's home. Furthermore, socio-demographic factors including sex, age, educational level, expenditure, and income have also been associated with self-medication practices.

Malawi, a low-income southern African country bordering Zambia to the west, Tanzania to the north, and Mozambique to the South, has not been spared self-medication and antimicrobial resistance. However, to our knowledge, most of the studies in Malawi, except for three, have been conducted in urban areas of Blantyre, Lilongwe, and Zomba. Even for the three rural areas studies, two have been done in hospital settings and one in the community. Insufficient data still exists on the prevalence of self-medication with antibiotics and awareness of antimicrobial resistance among rural communities in Malawi. We aim to examine the utilization of antibiotics, identify associated socio-demographic and cultural factors, and assess the level of knowledge about antimicrobial resistance among community members in the Neno district, rural Malawi.