

## GRANTEE HIGHLIGHT

# University of Sussex (Brighton and Sussex Medical School)

## Developing optimal antimicrobial stewardship capacity and practice in hospitals in Zambia



UNIVERSITY OF SUSSEX



University Hospitals Sussex  
NHS Foundation Trust



The World Health Organization has declared that antimicrobial resistance (AMR) is one of the top 10 global public health threats facing humanity. The main drivers are misuse and overuse of antimicrobials which lead to the emergence of drug-resistant pathogens. Inappropriate use of antimicrobials in hospitals is widely reported, particularly in low- and middle-income countries including Zambia. However, the extent of this issue remains largely unquantified, and data are not readily available to facilitate policy making.

In Zambia, there is a paucity of national data on the quantity and quality of antimicrobial utilization, especially in rural settings that face inequitable access to requisite infrastructure, workforce, and capacity. This has been a key barrier to the successful implementation of a national Antimicrobial Stewardship (AMS) program by the Zambian National Action Plan for AMR. The goal of this project is to enhance AMS capacity in hospitals in Zambia using a hub and spoke model.

AMS capacity building through education and training has targeted medical doctors, pharmacists, nurses, and laboratory scientists who are based in selected rural and peri-urban public hospitals in Zambia. Nine spoke hospitals were selected and, in addition to the hub hospital, this covered all 10 provinces in Zambia to provide national coverage.

The tertiary hospital with established AMS capacity (hub) is the University Teaching Hospital, Lusaka. The project will potentially impact the majority of the Zambian population of 18 million people.

A descriptive cross-sectional survey of baseline antimicrobial utilization in the selected hospitals was conducted using a validated Global Point Prevalence Survey (GPPS) methodology. An assessment of pre-intervention adherence to AMS guidelines in clinical practice was performed.

Healthcare teams were trained in the practice of AMS using structured training modules developed as part of the Brighton-Lusaka Health Link partnership. Pre- and post-intervention assessment of knowledge, attitude towards, and practice of AMS was performed. Antimicrobial utilization and adherence to AMS guidelines are prospectively monitored and evaluated using follow-up assessments in the intervention sites.

Following the educational intervention described above, monitoring and evaluation visits were conducted in all 9 participating Zambian hospitals. All spoke hospitals participated in World AMR Awareness Week (WAAW), celebrated in November every year. The theme for WAAW 2023 was "Preventing antimicrobial resistance together." Activities included AMR sensitization meetings in the hospitals and community, Radio and TV and School sensitization programs, and various banner displays on AMR.

Collection of post-interventional GPPS data in the spoke hospitals is expected to conclude by mid-March 2024. A project results dissemination meeting in Lusaka is planned for April 11 and 12, 2024.

Two members of the Zambian Team will attend the European Congress of Clinical Microbiology and Infectious Diseases (ECCMID) in Barcelona to present the key learning from this project.

The team in Zambia remains fully committed to the success of the project and continues to travel thousands of kilometers to the various spoke hospitals. Although the results are not yet fully available, the hub and spoke approach appears to help build AMS capacity in rural and peri-urban hospitals.

## PARTNERS



AMS-CHIPATA TRAINING



AMS-KABWE TRAINING



AMS-KITWE TRAINING



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