



Commonwealth Partnerships for Antimicrobial Stewardship 2: Scoping Exercise - Executive Summary

1. BACKGROUND

The Commonwealth Partnerships for Antimicrobial Stewardship 2 (CwPAMS2) programme is a project within the Fleming Fund.

The Department of Health and Social Care (DHSC) Fleming Fund

The Department of Health and Social Care (DHSC)'s [Fleming Fund](#) is a UK aid programme supporting up to 25 countries across Africa and Asia to tackle antimicrobial resistance (AMR), a leading public health threat across the world. The Fleming Fund invests in strengthening surveillance systems through a portfolio of country grants, regional grants and fellowships managed by Mott MacDonald, and global projects managed by DHSC partners. By supporting the capture of AMR surveillance data, and other relevant data, we will collectively be better able to understand the scale and scope of the problem in order to effectively tackle the issue of resistance.

The Fleming Fund does this through the following objectives:

1. Supporting the development of National Action Plans for AMR.
2. Developing and supporting the implementation of protocols and guidance for AMR surveillance and antimicrobial use.
3. Building laboratory capacity for diagnosis.
4. Collecting drug resistance data.
5. Enabling the sharing of drug resistance data locally, regionally, and internationally.
6. Collating and analysing data on the sale and use of antimicrobial medicines.
7. Advocating the application of data to promote the rational use of antimicrobials.
8. Shaping a sustainable system for AMR surveillance and data sharing.
9. Supporting fellowships to provide strong national leadership in addressing AMR.

The Fleming Fund will achieve these objectives through funding a number of projects with a diverse range of delivery partners, each focussing on a specific set of objectives and outputs, with a focus on sustainability and training.

The Commonwealth Partnerships for Antimicrobial Stewardship Programme 2

CwPAMS2 will build upon the work in earlier funded programmes (CwPAMS1, CwPAMS1.5), and contribute to achieving objectives 2, 7 and 9 from the above list – i.e.:

- Developing and supporting the implementation of protocols and guidance for AMR surveillance and antimicrobial use.
- Advocating the application of data to promote the rational use of antimicrobials.
- Supporting fellowships to provide strong national leadership in addressing AMR.

The programme will leverage the expertise of UK health institutions and technical experts to strengthen the capacity of the national health workforce and institutions in eight Commonwealth countries (Ghana, Kenya, Malawi, Nigeria, Sierra Leone, Tanzania, Uganda and Zambia), to address AMR challenges identified in countries individual AMR National Action Plans in existence or being drawn up with the support of the Fleming Fund.

Target countries have been carefully selected to derive maximum benefit from the established relationships already held by THET, the Fleming Fund and the UK Government more broadly in these locations. The project will be delivered to galvanise action amongst, and between, Commonwealth actors on AMR.

This programme of works can be seen as an extension of the Commonwealth's partnership working that has been an ever-present feature of the network. The importance of collaborative efforts such as these in progressing the development of nations, are emphasised in Sustainable Development Goal (SDG) 17, and aims to tackle the same priorities as the initial phase of CwPAMS through the Health Partnerships approach, while expanding its scope in line with the Fleming Fund strategy and aligns with the UK NAP for AMR ambition 1: *To be a good global partner.*

The Fleming Fund currently identifies its five core funding areas as:

- **Laboratory Infrastructure Enhancement:** building renovation, microbiology equipment purchase, biosafety and security equipment, reagents, durables and consumables and transport and logistics for goods and specimens.
- **Human Resource Strengthening:** training in AMR laboratory techniques, biomedical data management, bio data safety and biosecurity for fellows and country grant beneficiaries.
- **Surveillance System Strengthening:** support for Antimicrobial Resistance Coordinating Committees (AMRCCs), cross-sectoral meetings, strategy reviews, quality assurance control and data analysis and storage.
- **Building Foundations for Surveillance Data Use:** support for awareness raising, publications, evidence-based strategy, data sharing platforms, etc.
- **Rational use of Antimicrobial Medicines:** Development of Antimicrobial Use (AMU) or Antimicrobial Consumption (AMC) surveillance strategies and stewardship programmes

Priority Themes

The grant will **target themes and areas of investment currently not being developed by other Fleming Fund funded projects**, but which will make an important contribution to the overall success of the Fund. It aims to increase the rational use of antibiotics and ultimately a reduction in morbidity and mortality associated with AMR.

In particular, this grant will support partnerships to address priorities in the following areas:

- Improving antimicrobial stewardship, including surveillance at hospital and community level (**Rational use of Antimicrobial Medicines**)
- Building antimicrobial pharmacy expertise and capacity (**Human Resource Strengthening**)
- Enhancing infection prevention and control (**Human Resource Strengthening, Surveillance System Strengthening**)
- Improving the use of clinical microbiology and antimicrobial prescribing data to inform clinical decisions (**Building Foundations for Surveillance Data Use, Laboratory Infrastructure Enhancement**)
- Enhancing the detection and reporting of substandard and falsified antimicrobial medicines (**Laboratory Infrastructure Enhancement, Human Resource Strengthening, Building Foundations for Surveillance Data Use**)

2. SCOPING EXERCISE - SUMMARY FINDING - Kenya

The previous programme scoping was completed in November 2021; it assessed the status of Antimicrobial Stewardship (AMS) in each of the 8 CwPAMS Extension countries, and how health partnerships could support institutions and contribute to each country's AMR National Action Plan (<https://www.afro.who.int/publications/national-action-plan-prevention-and-containment-antimicrobial-resistance-2017-2022>). Recommendations from that previous scoping will inform implementation of CwPAMS 2 projects.

This Executive Summary draws on detailed data available in Appendix 1 (KENYA), and highlights gaps in AMS activities in-country. This document is developed as a non-judgemental tool, to be used to guide grant seekers through their application process, to highlight areas which would benefit from partnership activities, develop networks in-country as well as provide resilience and sustainable models of work and training to roll out in the future.

Key needs and priorities identified	<p>There are opportunities to increase AMS in the following areas:</p> <ul style="list-style-type: none"> ● AMS coverage in both pre- and in- service training for healthcare workers. ● Animal health settings. ● Quality improvement methodologies. ● Behaviour change methodology. ● Microbiology surveillance. ● AMS in community pharmacies. ● Community healthcare settings. <p>It is good to note that some of these areas have been proposed as activities for the 3-year AMS action plan at the Kakamega County Government Teaching and Referral Hospital (KCGTRH).</p>
Good practice from previous CwPAMS phases	<ul style="list-style-type: none"> ● Improved the hand hygiene practices in the surgical wards at KCGTRH. ● Mothers at KCGTRH were mentored on good hand hygiene post Caesarean Section at the maternity wing upon discharge. ● KCGTRH started carrying monthly antibiotic audits.

	<ul style="list-style-type: none"> Improved knowledge through exchange visits to Kampala and Cambridge.
FF partners in country with AMR/AMS projects (titles)	<p>Kenya Country Grant 1 A (CG1A) - https://www.flemingfund.org/countries/kenya/</p> <p>Fleming Fund</p> <ul style="list-style-type: none"> PATH and Kenya Medical Research Institution; International Livestock Research Institute; University of Nairobi; Aga Khan University; Washington State University (September 2019 - March 2021) FAO and International Livestock Research Institute (ILRI), in Nairobi, Kenya, which hosts the Consultative Group on International Agricultural Research (CGIAR) Antimicrobial Resistance Hub and also hosts a Capacity Development Unit Round Three Regional Grant Microbiology and Epidemiology Capacity Building - African Society for Laboratory Medicine
Non-FF grant holders in country with AMR/AMS projects (titles)	<ul style="list-style-type: none"> University of Nairobi - Funded by U.S. Centers for Disease Control and Prevention The Medicines, Technologies, and Pharmaceutical Services (MTaPS) Kenya Medical Research Institute (KEMRI) Wellcome Trust ReACT Africa Youth Against Antimicrobial Resistance (YAAR) Students Against Superbugs (SAS) Africa
AMS activity in-country since 2021 - Global Point Prevalence Survey (GPPS), WHO Point Prevalence Survey (PPS), other	None
AMU reviews in-country since 2021 (non-PPS)	None
Evidence of use of data gathered in development of National Action Plan (NAP) (especially GPPS methodology)	No

Principal stakeholders in AMS arena in-county	<ul style="list-style-type: none"> ● Ministry of Health (MOH): Principal Secretaries for Health, State Department of Agriculture, Livestock, Fisheries and Blue Economy, Directors of Medical Services, Veterinary Services, Fisheries and Agriculture ● Pharmaceutical Society of Kenya ● County Governments ● Center for Microbiology and Research, KEMRI ● Pharmacy and Poisons Board
Training	<p>Pre-service HealthCare professionals - No</p> <p>In-Service Health Care professional - Limited</p> <p>Ministry of Health Virtual Academy offers training in AMR for laboratory professionals¹.</p> <p>USAID The Medicines, Technologies and Pharmaceutical Services (MTaPS) programme collaborated with various health professional associations (including Association of Kenya Medical Laboratory Scientific Officers, Kenya Medical Association, Kenya Pharmaceutical Association, and National Nurses Association of Kenya), led by the Pharmaceutical Society of Kenya (PSK) and regulatory authorities. As part of the collaboration, MTAps used an innovative approach to develop and initiate an in-service continuing professional development (CPD) course on AMS for health care professionals. The nine-module, virtual course aims to integrate AMS into Kenya’s health system and workforce. Over 1,100 health care workers (30 medical laboratory scientists, 100 doctors, 323 nurses, and 720 pharmacists) were trained on the practical aspects of AMS in health care settings. Their participation earned the participants points from their respective regulatory bodies, including the Pharmacy and Poisons Board, the Nursing Council of Kenya, and the Kenya Medical Practitioners and Dentists Council. The points are crucial for annual renewal of practice licenses².</p> <p>Fleming Fund : Professional Fellowship. The Professional Fellowship scheme aims to support the professional development of key practitioners in Fleming Fund countries, in both human health and animal health sectors, who play an important role in implementing AMR and AMU surveillance. The scheme will provide training, coaching and mentoring to improve fellows' skills and leadership capacity in gathering quality AMR diagnostic data, AMR and AMU data collection and management, analysis and use of surveillance results³.</p>

¹ <http://elearningtest.healthit.uonbi.ac.ke/course/index.php?categoryid=72>

² <https://www.mtapsprogram.org/news-blog/integrating-antimicrobial-stewardship-into-continuing-professional-development-in-kenya/>

³ <https://www.flemingfund.org/grants/kenya-professional-fellowship/>

	<p>International Center for AIDS Care and Treatment Program (ICAP) is spearheading efforts at two high-capacity hospitals in Kenya –Kenyatta University Teaching, Referral & Research Hospital (KUTRRH) and MP Shah Hospital – to increase knowledge in infection prevention and control (IPC) through an e-learning campaign for clinicians. The online trainings, which were co-developed by the World Health Organization (WHO), the U.S. Centers for Disease Control and Prevention (CDC), and the University of Washington Global Health eLearning Program, provide a comprehensive overview of IPC skills and knowledge needed to help reduce the spread of health care-associated infections (HAI). Modules cover a range of topics important to effective IPC, including hand hygiene, waste management, transmission-based precautions, and Hospital Acquired Infection (HAI) surveillance⁴.</p> <p>Two main partners of the Consultative Group on International Agricultural Research (CGIAR) hub have been pinpointed as host institutions for Fleming fellows to train and mentor research fellows interested in working on AMR - the London School of Hygiene of Tropical Medicine and a consortium around ILRI with the German Federal Institute for Risk Assessment (BfR) and the University of Liverpool⁵.</p>
Registered pharmacist numbers in-country (2021-2022)	Pharmacists - 5000 (2020)
Other registered healthcare professionals (HCPs)	<p>Nurses - 63,580 (2020)</p> <p>Clinical officers - 21,131 (2020)</p> <p>Medical laboratory technologists - 14,219 (2020)</p> <p>Medical doctors - 9,497 (2015)</p> <p>Dentists - 1,066 (2015)</p> <p>Medical laboratory technicians - 4,445 (2015)</p> <p>Pharmaceutical technologists - 13,000 (2022)^{6 7}</p>
Evidence of leadership training for HCPs	No
Evidence of Continuous Quality Improvement (CQI) /Behaviour Change (BC) training for HCPs in the AMS arena	Yes Pharmacy department team at KCGTRH was tasked with QI in the hospital and at the county level.

⁴<https://icap.columbia.edu/news-events/icap-supports-successful-training-campaign-to-equip-kenyas-health-workforce-to-better-respond-to-emerging-public-health-threats/>

⁵ <https://amr.cgiar.org/pillars/capacity-development>

⁶ Kenya Health Workforce Report: The Status of Healthcare Professionals in Kenya, 2015
https://taskforce.org/wp-content/uploads/2019/09/KHWF_2017Report_Fullreport_042317-MR-comments.pdf

⁷ <https://knupt.com/#:~:text=It%20represents%20more%20than%2012%2C000,ACT%20the%20laws%20of%20Kenya.>

	<p>It is good to note that this has been proposed as an activity for the 3-year AMS action plan at the Kakamega County Government Teaching and Referral Hospital (KCGTRH)- Setting up an alcohol gel manufacturing facility at KCGTRH to improve the IPC measures</p> <p>Furthermore, there is ample research in-country for the need to support more QI/BC training⁸⁹</p>
Registered numbers of clinical microbiologists	Unavailable at publication date (October 2022). To follow when available.
Evidence of Good Practice in AMS, AMU, AMR in Community Health arena	<p>No</p> <p>It is good to note that this has been proposed as an activity for the 3-year AMS action plan at the Kakamega County Government Teaching and Referral Hospital (KCGTRH) - Community and staff education and development to promote awareness and understanding of AMR/AMS through the local vernacular radio stations</p>
Evidence of Supply Chain management processes in-country	<p>Yes</p> <p>The Ministry of Health - Kenya provides stewardship over the Health Products and Technologies (HPT) supply chain as guided by the Kenya Health Policy and Health Act 2017¹⁰</p> <p>Local supply chains for medicines and medical supplies in Kenya are dependent on three supply chains to the Kenyan health sector; the government organisation, non-profit procurement agencies, and private distributors and wholesalers¹¹</p>
Evidence of Substandard and Falsified Medicines reporting mechanisms	<p>Yes</p> <p>On April 13, 2022, the Kenya Pharmacy and Poisons Board (PPB) launched a mobile PV electronic reporting system (mPvERS), developed with the support of USAID MTaPS to the PPB Regional Centre of Regulatory Excellence to enhance Kenya's PV electronic reporting system for stronger safety monitoring in the country. The system developed as an application for both android and iPhone operating systems leverages the extensive and growing use of mobile devices in Kenya, which is higher than in the rest of Sub-Saharan Africa. mPvERS has both English and Kiswahili functionality¹²</p>

⁸ <https://doi.org/10.1093/heapol/czx004>

⁹ <http://dx.doi.org/10.1136/bmj-2020-001139>

¹⁰ Ministry of Health. Guidelines on the Management of Health Products and Technologies in Kenya. 2020. Nairobi, Kenya.

¹¹ Kariuki J, Njeru MK, Wamae W, Mackintosh M. Local Supply Chains for Medicines and Medical Supplies in Kenya: Understanding the Challenges [Internet]. Africa Portal. African Centre for Technology Studies (ACTS); 2015 [cited 2022 Sep 22]. Available from: <https://www.africaportal.org/publications/local-supply-chains-for-medicines-and-medical-supplies-in-kenya-understanding-the-challenges/>

¹² <https://www.mtapprogram.org/news-blog/kenya-launches-mobile-reporting-tool-to-improve-medical-product-safety-monitoring/>

