Commonwealth Partnerships for Antimicrobial Stewardship

Impact Report

The Fleming Fund

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Global Health Partnerships
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COMMONWEALTH PHARMACISTS ASSOCIATION

Impact Report 2026

Foreword

Antimicrobial resistance (AMR) remains one of the most serious threats to global health, and strong antimicrobial stewardship (AMS) together with effective infection prevention and control are essential to safeguarding the antibiotics we depend on.

I am deeply grateful to the Commonwealth Partnerships for Antimicrobial Stewardship (CwPAMS) programme for its leadership in strengthening AMS, building the global health workforce, and championing responsible antibiotic use.

The Impact Report demonstrates just how far the programme has come. We have seen real improvements in AMS capacity across partner countries, from expanding facility-level AMS in Malawi, to supporting policy development in Tanzania, to improving prescribing behaviours in Kenya.

These achievements make a real difference to patients and health systems. Importantly, the programme has fostered sustainability through strong country ownership, succession planning, integration into national systems, and a growing body of evidence shared through publications and conferences.

At the heart of CwPAMS' successes are its Health Partnerships, which bring together UK and Low-and-Middle Income Country institutions in true collaboration. These partnerships are enabling training, upskilling, and supporting healthcare professionals to advance into senior roles.

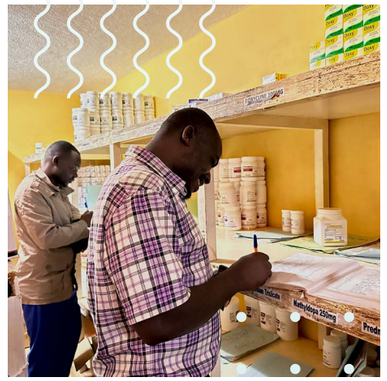
I am delighted that CwPAMS' achievements are gaining international recognition, including presenting at major AMR events to receiving the UKHSA 2025 Antibiotic Guardian Award for strengthening diagnostic capability in LMICs.

This year's accomplishments reflect the dedication and expertise of everyone involved in CwPAMS. Their work is helping to advance meaningful antimicrobial stewardship efforts and is an essential part of our ongoing fight against AMR.

Dame Sally Davies,
UK Special Envoy on AMR

"Having worked as a public health doctor before entering Parliament, I have seen first-hand that antimicrobial resistance is one of the greatest threats to the future of modern medicine. Attending the CwPAMS Regional Sharing and Learning Event in Nairobi in October 2025, I was deeply inspired by the collective expertise and leadership shown by health partners from the UK and eight African nations involved in this programme. It is clear that, by bridging the gap between clinical excellence and strategic policy through these powerful Health Partnerships, we are not just fighting a 'silent pandemic', we are building the resilient, global health systems of the future."

Dr Beccy Cooper,
MP United Kingdom



"CwPAMS supported the establishment of the Uganda Parliamentary Forum on AMR (PF-AMR) meaning high level advocacy, budget appropriation and legislation on AMS. For the first time, a deliberate standalone section appeared in the 2025/2026 National budget urging government to fund AMS activities in the health sector. The Forum is currently engaging the Network for African Parliamentary Committees of Health (NEAPACOH) to prioritise AMS in their respective countries."

Honourable Dr Charles Ayume,
MP Uganda

Introduction

Antimicrobial Resistance (AMR) is one of the biggest threats to global health security. It disproportionately affects low- and middle-income countries (LMICs) where the burden of infectious diseases remains high and access to reliable diagnostics and quality medicines is often limited.

The Commonwealth Partnerships for Antimicrobial Stewardship (CwPAMS) programme, funded by the UK Department of Health and Social Care's Fleming Fund and delivered by Global Health Partnerships (GHP, formerly THET) and the Commonwealth Pharmacists Association (CPA) has shown how targeted investment in Health Partnerships can drive measurable improvements in antimicrobial stewardship (AMS), infection prevention and control (IPC), and medicines optimisation.

Working in partnership across eight African countries and the UK, CwPAMS has strengthened governance systems and improved the collection and use of data to guide clinical decision-making and continuous quality improvement.

Through peer-to-peer collaborations, partners co-designed locally relevant solutions aligned with national AMR Action Plans. Thousands of health workers across clinical, laboratory, and community settings have been equipped with practical stewardship skills to drive delivery of these solutions.

Dedicated technical workstreams spanned leadership development, hub and spoke sustainability models, clinical diagnostics, animal and environmental engagement, community pharmacy and the detection and reporting of substandard or falsified medicines.

The programme's work has shaped national policy dialogues about AMR, bolstered the professional recognition and leadership role of pharmacists, generated tools and resources with long-term utility and fostered enduring institutional partners between the UK and all eight African countries.

> CwPAMS has evolved from an aid programme into a collaborative international movement for sustainable, system-wide change.

This impact reports highlights how, when taken together, the programme's achievements underscore the value of continued donor investment in collaborative models as scalable, cost-effective mechanisms for tackling AMR and strengthening resilient health systems.

Acknowledgements

GHP and CPA would like to express their sincere gratitude to all those who enabled CwPAMS to achieve the successes set out in this report: The Change Exchange, Ducit Blue Solutions, UK and Partner Country institutions, and Health Partnerships who designed and led multiple interventions.

We would like to especially thank Ducit Blue Solutions who supported CwPAMS as coordination partner in Nigeria and grant management partner in Ghana.

We would also like to say a special thank you to the thousands of volunteers and health workers across the world whose dedication and expertise made this programme possible.

CwPAMS was funded by the UK Department of Health and Social Care's Fleming Fund programme using UK aid, supporting up to 25 countries across Africa and Asia to tackle 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 partners.

The views expressed in this publication are those of the authors and not necessarily those of the UK Department of Health and Social Care.

Glossary of Terms

ALF-A
Africa Leadership Fellowships for AMS

AMR
Antimicrobial Resistance

AMS
Antimicrobial Stewardship

AMU
Antimicrobial Use

CPA
Commonwealth Pharmacists Association

CQI
Continuous Quality Improvement

CwPAMS
Commonwealth Partnerships for Antimicrobial Stewardship Programme

DHCS
Department of Health and Social Care

GESI
Gender Equality and Social Inclusion

GHP
Global Health Partnerships (formerly THET)

GPPS
Global Point Prevalence Survey

HP
Health Partnership

HSM
Hub and Spoke Model

HWs
Health Workers

IPC
Infection Prevention and Control

LMIC
Low and Middle-Income Country

NAP
National Action Plan

NGO
Non-Governmental organisation

NHS
National Health Service

PPS
Point Prevalence Survey

SFMs
Substandard and Falsified Medicines

WHO
World Health Organisation

WHO AWaRe
Access, Watch, Reserve – a classification tool developed by the WHO to ensure appropriate, sustainable and effective use of antibiotics

WHONET
Microbiology Laboratory Database Software (WHO Collaborating Centre for the Surveillance of Antimicrobial Resistance)

Programme Overview

CwPAMS was established in 2019 to harness the technical expertise within the UK National Health Service (NHS) to strengthen the health systems of eight sub-Saharan African Commonwealth countries in addressing AMR, while fostering meaningful cross-country learning.

The programme is grounded in the Health Partnership (HP) model, which links UK health institutions with counterparts in LMICs to co-develop sustainable solutions to priority health system challenges.

Over the course of the programme, 31 Health Partnerships were supported by the programme to implement jointly designed projects. The majority of Partnerships were between health service provision institutions, with some academic, government, non-governmental (NGOs), and professional organisations.

Through volunteer engagement and institutional collaboration, UK and LMIC health professionals jointly addressed gaps in AMS, IPC, pharmacy practice, and data use. This collaborative approach delivered mutual benefit: LMIC partners strengthened institutional capability and clinical practice, while UK participants developed leadership skills and deepened their understanding of AMR in resource-constrained settings.

Phase 1 (2019 – 2021)

The initial phase of CwPAMS (March 2019–June 2021) and its extension phase (October 2021-June 2022) supported 19 partnerships across Ghana, Tanzania, Uganda, and Zambia, later expanding to Kenya, Malawi, Nigeria, and Sierra Leone. Projects focused on three core thematic areas: AMS (including AMR surveillance), antimicrobial pharmacy expertise, and IPC.

During this period, the Chief Pharmaceutical Officer's Global Health Fellows (funded by Health Education England, now NHS England) complemented CwPAMS projects. Through this fellowship programme, twenty-nine UK NHS pharmacists developed a greater level of confidence, stronger leadership skills and a deepened understanding of AMR in the context of global health.

CwPAMS achieved significant outcomes in its early years, including improved AMS and IPC knowledge and practice among health workers, along with the widespread adoption of standardised tools and guidance to support effective AMR interventions. In the UK, the programme has enhanced leadership capacity and AMR awareness amongst NHS staff.

Evidence of impact includes pharmacist upskilling and increased professional recognition, expanded pharmacist involvement in clinical wards and governance committees, and increased confidence among healthcare workers to make evidence-based prescribing decisions, enabling measurable improvements in antimicrobial (particularly antibiotic) use. The programme has also demonstrated strong adaptability and system-level impact.

Phase 2 (2022 – 2025)

Building on these achievements, CwPAMS Phase 2 (2022–2025) and Phase 2.5 (2025) expanded the programme's reach and strengthened bilateral knowledge exchange between the UK and participating African Commonwealth countries.

Centrally delivered technical workstreams led by CPA built on Phase 1 activity, while working to improve the use of microbiology and prescribing data, strengthen the detection and reporting of substandard and falsified medicines, and extend engagement into community pharmacy settings, promoting a One Health approach where human health interventions are married to environmental and animal ones to comprehensively tackle all causes of AMR.

GHP supported grants' management and provided expertise to embed Gender Equity and Social Inclusion (GESI) principles in intervention delivery, while strengthening coordination and collaboration across health systems and stakeholders.

CPA developed a new Africa Leadership Fellowship for AMS (ALF-A), building on the lessons and successes of the previous Global Health Fellowship, further elevating the leadership and recognition of pharmacists as central actors in AMS. Many ALF-A Fellows led high impact interventions with tangible improvements in AMS and prescribing practices.

CwPAMS Phase 2 has contributed to the Fleming Fund's overarching aim of enabling LMICs to generate, share, and use data to improve antimicrobial use and investment in AMR, while aligning with key principles of One Health, sustainability, alignment, and country ownership.

UK institutions have also continued to benefit through enhanced staff capability, leadership development, and global health engagement.

Through authentic bilateral partnerships and sustained capacity building, CwPAMS has proven to be an effective and scalable model for strengthening AMS systems and safeguarding the effectiveness of antimicrobials globally.

> An effective and scalable model for strengthening AMS systems and safeguarding the effectiveness of antimicrobials globally

Key CwPAMS output and outcome data.
Cumulative totals are shown.

Key outcome	Phase 1 (2019-22)	Phase 2 (2022-25)
No. of HPs supported	19	31
No. of Organisations involved (UK and LMIC)	84	265
No. of LMIC intervention sites	32	209
No. of Inpatient beds in supported LMIC intervention sites	8,738	32,334
No. of LMIC Health workers trained	6,544	34,977
No. of Volunteering days provided by UK Health Workers	2,164	5,861
No. of Global Health Leadership Fellowships completed	29	112
No. of Point Prevalence Surveys (PPS) undertaken in supported LMIC intervention sites	27	246
No. of Antibiograms completed in supported LMIC intervention sites	0	40

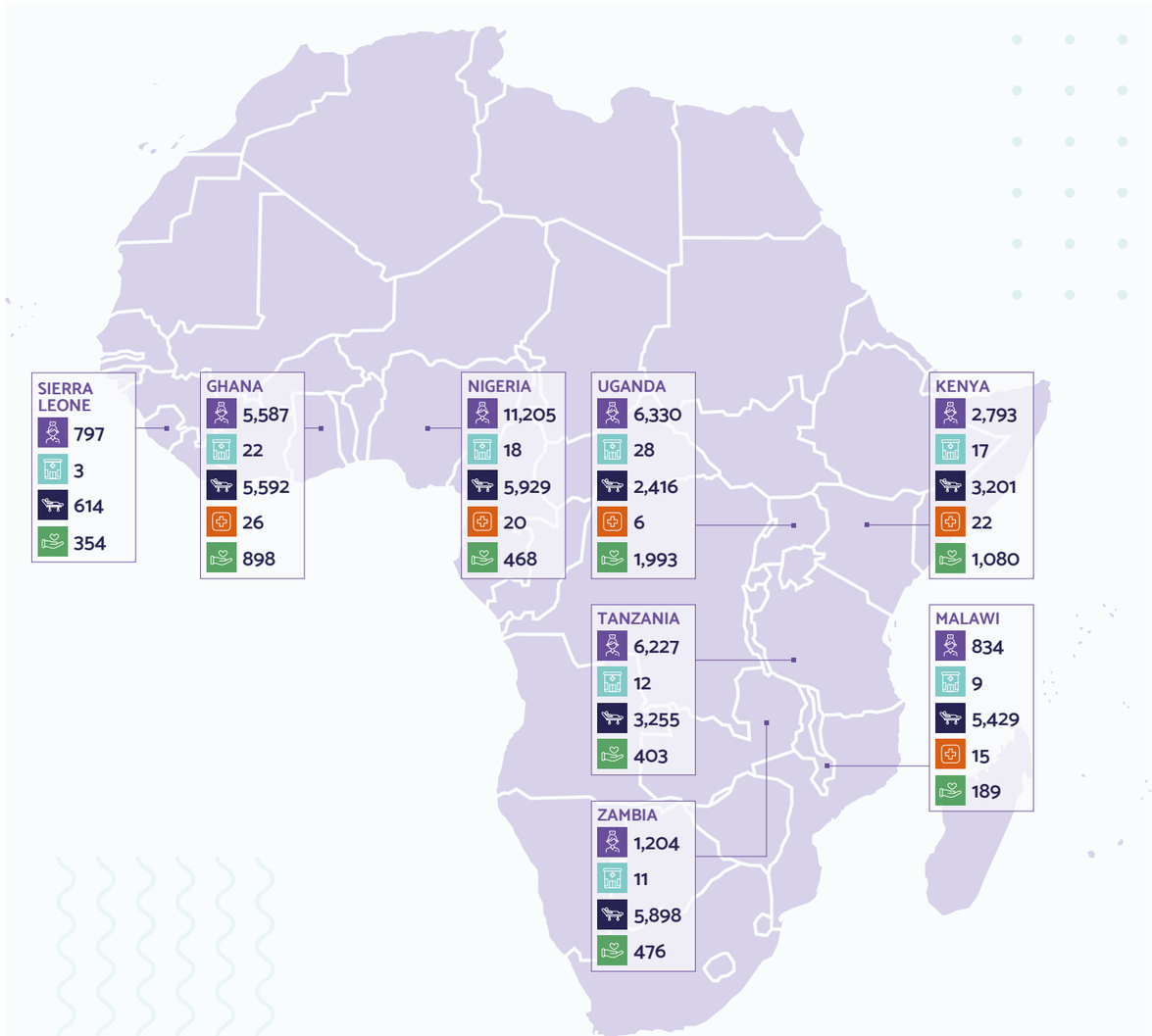
"CwPAMS offers a model for how global health collaboration and bilateral partnership working can tackle emerging health threats like AMR. With tens of thousands of direct and indirect beneficiaries, CwPAMS has been a high impact yet cost effective intervention that has empowered healthcare workers, especially pharmacists, in sub-Saharan Africa to be leaders in the struggle to contain and control AMR. I am exceptionally proud to have played a leading role in this programme."

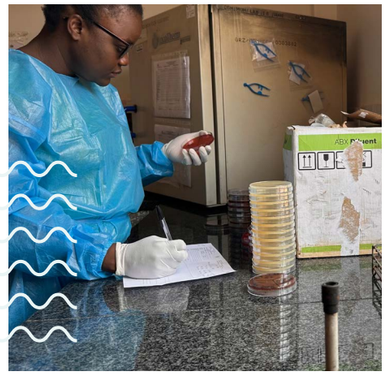
Maxencia Nabiryo, Head of Programmes, Commonwealth Pharmacists Association

"CwPAMS plays a crucial role in catalysing changemakers across the UK and partner countries to tackle AMR. CwPAMS Health Partnerships act at a strategic sweet spot: translating data into better clinical practice on the front line."

Josh Adams, Department of Health and Social Care

Programme Reach





Outcomes

Data Informing Interventions

At the outset of the programme, most participating health facilities lacked processes for systematic data collection, analysis and - critically - the routine use of data to inform clinical decision-making. With only an estimated 3% of facilities having access to on-site laboratory services, microbiology data to guide prescribing was extremely limited.

In many settings, antimicrobial use was neither routinely measured nor reviewed, restricting opportunities for improvement or enforcement of best practice.

For these reasons, CwPAMS prioritised practical, routine data use likely to have a tangible impact on antimicrobial usage and patient outcomes over complex research approaches.

Phase 1

Phase 1 focused on building capability to collect data and many Health Partnerships collected baseline antimicrobial prescribing data for the first time. AMS assessment tools and Point Prevalence Surveys (PPS) – internationally recognised tools for monitoring the scale and scope of antimicrobial usage – established contextualised baselines, helping facilities to identify specific patterns or areas for improvement such as unnecessarily lengthy surgical prophylaxis, poor documentation of prescriptions, or non-adherence to prescribing guidelines.

These findings informed locally owned, AMS Action Plans agreed by newly established or strengthened hospital AMS committees and were intended to run over a 2 to 3-year period.

> Antimicrobial use was neither routinely measured nor reviewed, restricting opportunities for improvement or enforcement of best practice.

Phase 2

In Phase 2, emphasis shifted from data collection to using "Data for Action". Partnerships strengthened data analysis, discussion, dissemination and decision-making, embedding continuous quality improvement driven by behaviour change principles to ensure sustained impact. Rather than treating data as a reporting requirement, teams used it to identify areas for targeted, practical interventions.

During Phase 2, a clear transition occurred - from limited data availability to increasing routine evidence generation and application within governance structures and clinical decision-making processes.

In Uganda, innovations in drug documentation – with new tools designed to enable better monitoring of prescriptions and their durations – led to a significant reduction in inappropriate antimicrobial use in in paediatric and neonatal wards. In both Kenya and Uganda, hospitals saw a reduction in the number of surgical patients receiving more than one dose of antibiotic (the recommended prophylactic dose) prior to treatment. In Tanzania, adherence to national treatment guidelines improved by over 12% at one hub and 20% at a spoke site following repeated PPS cycles and feedback loops.

In parallel, Health Partnerships worked to improve access to quality microbiology testing and more reliable microbiology data, allowing clinicians to make better and more targeted prescribing decisions based on the identification of specific pathogens.

Where laboratory capacity existed, facilities were enabled to produce antibiograms (a report used to identify specific causes of infection and the best antimicrobials to treat them) for the first time, translating sensitivity data into clear empiric prescribing guidance. While microbiology capacity remains uneven in some settings still without full laboratory services, the ability to interpret and act on available data has improved significantly at beneficiary sites.

The programme also embedded data-driven quality improvement through Global Health Leadership Fellowships (such as UK-ALF-A), equipping pharmacists with practical skills in audit, feedback, and iterative change. This reinforced a shift from viewing data as a reporting requirement to using it as a valuable, daily tool to inform clinical decision-making. Other clinicians have, in turn, benefited from enhanced expertise and support from pharmacists.

This shift has strengthened accountability, informed policy engagement, and positioned Health Partnerships to sustain data-driven stewardship across the network. Partnership personnel have not only gained the skills and confidence to use data effectively themselves but are also now equipped to disseminate learning to other colleagues and sites, creating a ripple effect of sustained data-driven improvements.

Case study

From Data to Action: Transforming Stewardship at Chipata Central Hospital in Zambia

At Chipata Central Hospital in Eastern Province, Zambia, enhanced data usage has enabled the embedding of AMS into institutional practice.

Baseline PPS findings revealed widespread prescribing without detailed diagnostic data, poor documentation, limited adherence to national guidelines, and frequent use of multiple antibiotics per patient. This PPS exercise served as a valuable springboard for the AMS committee to drive forward stewardship reforms.

Standardised antimicrobial prescription charts were introduced across the hospital and later rolled out to spoke sites, improving documentation, allergy recording, microbiology testing uptake, and compliance with treatment guidelines.

Follow-up PPS cycles demonstrated measurable improvement: facilities now limit prescriptions to a maximum of two antimicrobials per patient, adherence to national guidelines has increased, and there has been an evident shift from WHO "Watch" (broad-spectrum drugs that work on many infection-causing bacteria but have high risks of resistance as a result) to "Access" antibiotics (drugs that are highly effective against particular bacteria) particularly in surgical and paediatric wards.

Crucially, AMS activities became embedded within routine hospital governance, supported by a dedicated budget and monthly review meetings. Updated local antibiogram data informs prescribing protocols and procurement decisions, ensuring cost-effective antibiotic purchasing aligned with resistance patterns.

Through its hub role, Chipata Central Hospital has also supported three new functional AMS committees in district hospitals, extending stewardship regionally and disseminating best practice to other sites.

> By institutionalising "Data for Action," Chipata has demonstrated how structured measurement, accountability, and leadership can transform prescribing practice and strengthen health system resilience.

Improved Structures, Knowledge and Processes

LMIC Health Facility Strengthening - Numbers by end of programme (2025)

No. LMIC Institutions with new/updated policies and guidelines	**61**
No. LMIC Institutions with AMS Committees and Action Plans	**88**
No. Hub health institutions with the capability to continue to develop the capacity of spoke sites	**18**

Institutional buy-in is a critical component of an effective AMS strategy at the local, regional and national levels. Without strong institutional structures supporting capable professionals to translate policy into practice, the sustainability of AMS interventions cannot be guaranteed.

One of CwPAMS' major achievements has been the establishment or rehabilitation of almost 90 functional AMS Committees with formally defined roles in their institutions and senior leadership endorsement. These committees formulated action plans which enabled a transition beyond basic awareness raising to competency development and workforce capability building at scale.

AMS Committees have played a critical role in driving the delivery of new tools to support AMS and IPC, promoting uptake of microbiology services, promoting quality improvement, facilitating behaviour change, enabling gender equality and social inclusion, and promoting clinician (especially pharmacist) leadership.

These governance platforms have moved stewardship from ad hoc activity to accountable institutional practice, with AMS now increasingly being integrated into hospital workplans, budgets and performance discussions.

The programme achieved significant system-wide capacity and capability building, with almost 35,000 healthcare workers trained across all intervention sites. A Train-the-Trainer model was employed to enable these newly upskilled personnel to cascade learning across their institutions and networks, enabling peer-to-peer learning and mentoring, as well as broadening accountability for tackling AMR.

Education resources developed through CwPAMS are being embedded into pre-service curricula and Continuing Professional Development (CPD) frameworks, including at the national level via CPD-accredited pharmacy training in Malawi, and across the Commonwealth through the CPA Academy, a global empowerment hub for pharmacists with more than 25 hours of AMS learning content available to tens of thousands of pharmacists.

One notable impact of strengthened governance and enhanced AMS education was increased confidence on the part of trainees to challenge suboptimal practices, for example by advocating for greater guideline adherence or identifying innovations that would drive better AMS, like dedicated ward rounds or prescribing audits.

High levels of workforce mobility within CwPAMS countries also proved to be an advantage to the programme. Whilst a challenge for individual institutions, this mobility allows the transfer of AMS skills and knowledge between sites, disseminating learning beyond participating institutions and planting the seeds for organic local interventions at new points of care.

Case studies

Building a National Stewardship Movement: Sierra Leone's Pharmacists Lead the Change

In Sierra Leone, the Health Partnership between Connaught Hospital and King's Global Health Partnerships has catalysed a step-change in AMS, transforming isolated efforts into a coordinated national movement.

Ola During Children's Hospital and 34 Military Hospital have formally launched AMS committees, joining Connaught Hospital to bring the national total to three. These represent the first known paediatric and military hospitals in West Africa to establish formal AMS governance structures - a landmark achievement in institutional reform.

Sustainability has been built into the system. In collaboration with the Pharmacy Board of Sierra Leone, AMS competencies are now embedded as mandatory elements of pharmacy internships, ensuring stewardship principles are institutionalised within the national curriculum.

Engagement with the Pharmaceutical Society of Sierra Leone has further amplified reach: in a country with an estimated 250 pharmacists, 230 have now been trained in a single year.

At Connaught Hospital, a competitive, accredited AMS Champions programme equipped ten early-career pharmacists with advanced skills in prescribing review, Global Point Prevalence Surveys, ward-based stewardship, and community engagement. Graduates are already leading change. One pharmacist reflected:

"At Connaught I was able to interact with doctors with regards to their prescriptions. Most of them were not aware of the treatment guidelines. Some are not complying. I was also able to interact with nurses with regards to miss documentation on the patient treatment record. At 34 military hospital, my workplace, I was able to conduct the first ever Global PPS involving other workers at the hospital."

Leadership for Improved Stewardship in Ghana

The Health Partnership between the Ghana Public Health Association and the UK Faculty of Public Health received capacity building support during both phases of the CwPAMS programme. A key aspect of the Phase 2 activity has been ensuring that the hub facility, Ledzokuku Krowor Municipal Assembly - LEKMA - Hospital, is able to provide the leadership necessary to sustain and embed improved stewardship both internally and throughout four spoke sites in the Greater Accra region.

The Health Partnership has produced (with the help of the CPA's CwPAMS Toolkit) several high-quality guidance materials to ensure adherence to improved antimicrobial stewardship behaviour, including training manuals, laboratory standard operating procedures (SOPs) and an AMR ward round checklist.

The use of these tools, alongside training, has made a sizeable impact on health worker behaviour at the hub and spoke sites. Adherence to antimicrobial protocols/guidelines has increased in the wards at LEKMA from 74% in 2023 to 87%, and in the out-patients department from 71% to 91%. Over the same time period, there has been a reduction in missed doses per patient from 47% to 23%.

Ongoing data collection on resistance patterns and prescribing trends continues to prompt the development of new guidelines and training within the hub and spoke sites.

Benefit to the NHS

Each of CwPAMS' 31 Health Partnerships involved a UK partner organisation, in the vast majority of cases either an NHS Trust/Board (16 partners) or an academic institution (7 partners). The remainder consisted of Government agencies, professional bodies or not-for-profits with relevant remits or expertise, usually working closely with the NHS.

Over the course of CwPAMS, health workers from the UK contributed almost six thousand volunteering days. Their roles included mentorship and training, management, planning, and research, and were made up of in-country placements as well as remote volunteering.

The majority of UK volunteers were pharmacists, reflecting their leadership role within the projects, but others were drawn from across the multi-disciplinary team including doctors, nurses and lab scientists. Evaluation work has demonstrated that Involvement in international AMR partnership work has:

Built confidence and positive attitudes
Health workers were able to take greater ownership and responsibility in their roles, working with senior stakeholders in another country, and felt empowered to solve problems rather than just report on them.

Improved professional practice
Volunteers were sensitised to the effects of their own and others' behaviour in team dynamics; aware of and respectful of other cultures; and more able to adapt to new environments and challenges. UK volunteers who had been with the programme for a long time reported that their experience had made them more able to cope with challenges such as COVID-19 within the NHS.

Fostered leadership skills
Over 80% reported that they developed leadership and management skills through volunteering. In some cases this had profound effects on individuals, developing skills in a year that staff felt would normally take half a decade of work experience under normal conditions.

Driven innovation, sustainability and frugality
Over 85% of UK volunteers indicated that they have new ideas about how to achieve more with fewer resources as a result of their LMIC volunteering experience, and that they have a greater understanding of the importance of prevention in ensuring sustainable healthcare. Additionally, 68% have developed new knowledge about how to make healthcare in the UK more sustainable.

Enhanced passion and excitement about work and appreciation of the NHS
There were many examples of health workers reporting that their work as volunteers renewed passion for a career in health work, and reminded them why they do what they do, even after particularly difficult moments, such as responding to COVID-19. Experience of working in LMICs also had the effect of renewing an appreciation of the resources and opportunities available within the NHS in comparison to other countries, and the value of a system focused on universal health coverage (UHC).

Positive outcomes of volunteering for UK Health Workers.

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Selected Quotes

"I was stretched out of my comfort zone every day and that has given me more confidence in my professional development and I now have the ability to put my point across when previously I would have been not confident enough to do so."

"I am now a very senior NHS leader. My (LMIC colleagues) showed me leadership and I felt I could do (the) same. This partnership has changed me as a person in so many ways and I will be forever grateful."

"Volunteering has enriched my professional expertise and instilled a lifelong passion for mentorship, capacity building, and public health advocacy."

A series of interviews with volunteers and their managers within the NHS were also undertaken during the second phase of the programme. They highlighted the different ways in which health workers who had undertaken volunteering were returning benefit to their institutions in the UK.

Behavioural change benefits for individuals were a key aspect of how institutions view the benefits of global health volunteering but further key points were raised:

Recruitment, Retention and Progression
All interviewees reported that volunteering had resulted in them staying in their job longer, and had contributed to career progression. Managers reported that volunteering, including within CwPAMS, was a key element in the retention of staff. Examples included a newfound appreciation for the NHS; and one example included a pharmacist, inspired by their experience to change things for the better in the UK, applying for and achieving a director position.

Visibility and Networks
Small trusts or institutions gained visibility through their global health work and benefited from the global networks that HP work can forge. This further opened avenues to other kinds of beneficial work like research. CwPAMS has also led to the greater visibility of the Pharmacy profession within trusts, particularly because of their sharing and presenting their project work within their institutions.

Throughout the programme, Partnerships reported on specific examples of mutual benefit that arose from their project work. The peer-to-peer nature of Health Partnerships creates a multitude of opportunities for learning as multi-disciplinary teams are bought together from two (or more) different health systems to jointly solve problems.

As an example, during Phase 2, the Partnership teams from Kifili County Referral Hospital (Kenya) and Oxford University Hospital NHS Foundation Trust (UK) were working together to implement changes in clinical algorithms to benefit patients during the diagnostic process. As part of the reciprocal visit to the UK by a team from Kilifi, the visitors assisted a patient review leading to the diagnosis of TB meningitis for a patient and enabling prompt, appropriate treatment. This has resulted in the problem of TB in patients from high prevalence areas being further discussed, and ongoing work to adapt and update OUH guidelines to lower the threshold to investigate patients with risk factors for possible TB.

Technical Workstreams

Technical workstreams were developed and led by CPA during Phase 2 based on learnings from Phase 1. Technical leads were identified to provide assistance to Partnerships based on the needs and context of the workstream.

Microbiology Laboratory Improvement

The effective use of clinical diagnostics and microbiology is a critical dimension of AMS, enabling targeted antimicrobial prescribing that both improves patient outcomes and mitigates opportunities for AMR to develop.

Recognising this, CwPAMS introduced a dedicated microbiology workstream during Phase 2, aimed at strengthening laboratory-clinical integration and data use. Working closely with participating health facilities, the purpose of this technical workstream was to embed microbiology into routine AMS practices, promote the use of local diagnostic data for clinical decision-making, enhance communication between laboratories and clinical teams, with the goal of improving the generation and interpretation of antimicrobial sensitivity data to reduce inappropriate or risky prescribing practices.

In the absence of this data, clinicians are forced to rely on 'empirical prescribing' practices, making educated guesses about the best course of treatment from their clinical experience. Without the ability to identify specific pathogens as the cause of an infection, this means clinicians often find themselves forced to rely on more powerful broad-spectrum antimicrobials where more targeted alternatives might suffice.

This reliance on such antimicrobials creates opportunities for resistance to develop through widespread and unnecessary patient exposure. Whether through revitalising an under-resourced lab in Uganda, implementing automated systems in Kenya, modernising facilities in Zambia, or linking laboratory data to clinical practice in Nigeria, CwPAMS has demonstrated that strategic investment in laboratory infrastructure, staff mentorship, and the integration of microbiology with AMS and IPC is essential to combating AMR and improving patient outcomes.

These success stories highlight the value of bi-directional learning, targeted support, and partnership models that prioritise sustainability, capacity building, and local leadership, laying the foundation for stronger health systems across Africa.

Across Uganda, Kenya, Zambia, Tanzania and Nigeria, laboratories have evolved from under-resourced, unsupported facilities into centres of diagnostic excellence, shaping clinical decisions and patient outcomes.

To enable sustainability, CPA developed a Microbiology Resource Package, with a range of useful tools designed to support laboratory-clinical engagement, sampling guidance, and evidence-informed antimicrobial review, as well as a series of training webinars such as Introduction to Clinical Microbiology and Antibiogram Insights. These have equipped multidisciplinary teams with practical skills to interpret and act on laboratory results.

This CwPAMS workstream's contribution to strengthening diagnostic stewardship within AMS was recognised at the 2025 UK Health Security Agency (UKHSA) Antibiotic Guardian Awards, where it won in the Diagnostic Stewardship category for its efforts in developing diagnostic resources that advance microbiology integration in LMIC health systems.

Case study

Revitalising diagnostics at Lira Regional Referral Hospital in Uganda

At Lira Regional Referral Hospital, in northern Uganda, strengthening microbiology services transformed clinical practice and improved patient outcomes.

Before CwPAMS , the laboratory was under-resourced and clinicians relied on empirical antibiotic therapy due to lack of diagnostic data. Infrastructures were cramped, overheated, and lacked basic equipment such as Bunsen burners, and weighing scales.

The laboratory has since undergone a remarkable transformation. With mentorship from UK specialists, the provision of essential laboratory tools, and intensive on-site training, Lira developed robust microbiology systems and a culture of quality.

Laboratory lead Mary Apaki was supported by the programme to drive local implementation, coordinating with clinical teams, establishing internal quality assurance processes, and ensuring that staff adopted best practices.

Within a short time, the laboratory achieved a 100% pass rate in external quality assessments, developed its first hospital antibiogram to enable pathogen-specific prescribing and shorter therapy times, and became a regional reference point for AMR surveillance.

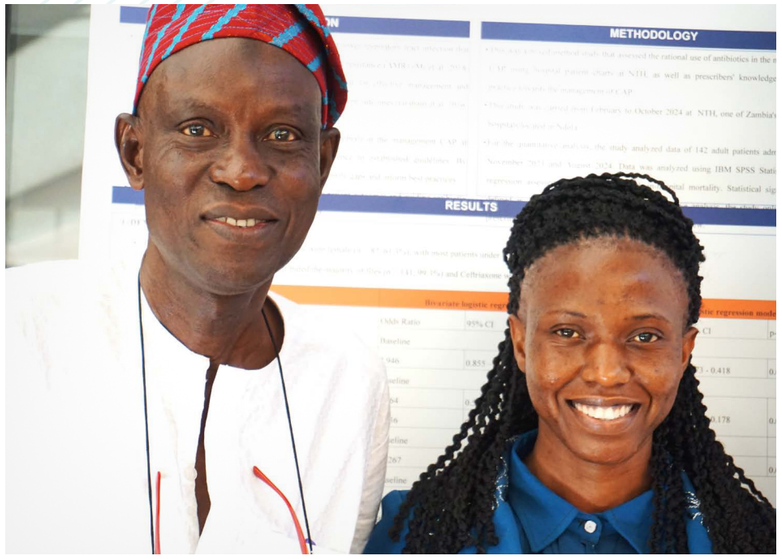
Sample submissions to the laboratory increased markedly - from 314 in 2021 to 2,748 in 2025 - demonstrating growing trust in diagnostics and the embedding of data use in clinical decision-making. Regular monthly meetings between laboratory staff and clinicians strengthened communication, increased confidence in diagnostics and fostered shared decision making.

Lira also extended its influence to Entebbe Regional Referral Hospital through peer-to-peer learning and hands-on guidance in transferring data from the Automated Laboratory Information System to WHONET, developing antibiograms, and improving lab-clinician communication. Entebbe staff gained practical skills in data management and laboratory workflows, paving the way for sustainable collaboration and knowledge exchange.

Evidence suggests that maintaining active microbiology services is cost-effective in resource-limited settings, with models showing that investment in diagnostics can reduce net patient care costs and deaths by enabling targeted therapy.

Lira's experience underscores the importance of dedicated laboratory budget lines in hospitals to improve care quality, reduce inappropriate antibiotic use, and strengthen stewardship practices that will endure beyond programme support.

> Strengthening microbiology services transformed clinical practice and improved patient outcomes



Community Pharmacies

CwPAMS is one of the first programmes in the world to create a dedicated community workstream, tackling a well-documented gap in AMS interventions, which traditionally focus on hospitals and secondary care - despite the massive role community misuse of antimicrobials has to play in AMR.

Research has shown that AMS efforts have traditionally focused on hospitals and secondary care, despite a substantial proportion of antimicrobial use and misuse occurring in community settings.

In Phase 2, CwPAMS worked to extend AMS efforts to the frontline of medicine access through work with community pharmacies, local health workers, veterinary practitioners and the public. Community pharmacists in particular benefited from CPA's expertise and were equipped with practical tools, data, and leadership support to embed AMS into routine practice.

A core output was the piloting of a Community Pharmacy AMS Toolkit across five CwPAMS countries (Ghana, Kenya, Malawi, Nigeria and Uganda), providing a structured approach to self-assessment, priority-setting, and action planning tailored to local contexts.

In addition, five Community Champions who are practising pharmacists were trained and mentored to deliver locally relevant training and professional engagement activities aligned with WHO's World AMR Awareness Week and Fight the Fakes Week 2025.

Baseline data collection strengthened the evidence base for community AMS opportunities. Assessments were completed in 89 community pharmacies, alongside 156 responses to a Knowledge, Attitudes, Behaviours and Practices survey of community pharmacy staff. Findings demonstrated strong professional commitment to stewardship, particularly in leadership, prescription verification, and patient counselling.

However, results also highlighted that many stewardship activities remain informal, undocumented, and inconsistent. These insights provide a foundation for targeted and measurable improvement to tackle AMR in community settings.

A defining strength of the workstream was its integration with the CwPAMS Substandard and Falsified Medicines (SFMs) programme. Champions participated across both workstreams, embedding medicine quality vigilance into community AMS activities and strengthening links between pharmacies, regulators, and Health Partnerships. Substandard and falsified medicines, as ineffective treatments for infection, are a major contributor to antibiotic resistance.

Overall, the community workstream demonstrated a scalable, pharmacist-led model for strengthening AMS at the point of care. By combining baseline data, practical tools, and locally led action, it offers a cost-effective pathway to reduce inappropriate antimicrobial use, improve patient safety, and advance national AMR action plans through community-level engagement.

> The community workstream demonstrated a scalable, pharmacist-led model for strengthening AMS at the point of care

Communities at the Frontline: Driving Change and Strengthening Systems Beyond the Hospital Walls

Kenya

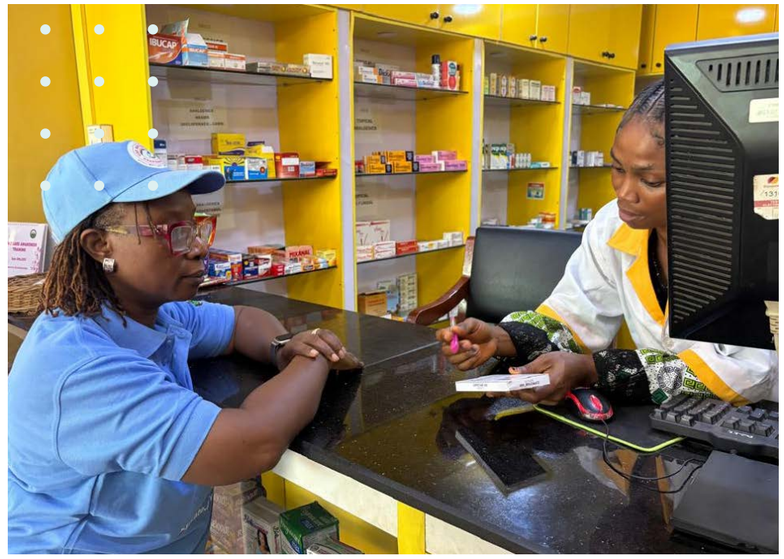
In Kakamega County, Kenya, Dr Godfrey Anyembe trained more than 150 health professionals, engaged 25 community pharmacies, and reached over 2,000 members of the public through awareness walks and faith-based outreach, strengthening frontline reporting and public understanding of SFMs.

Ghana

Led by Wendy Anokyewaa Manu in Accra, the "Be Aware, Act Now" campaign engaged healthcare workers and community members through physical trainings and mass public outreach during WAAW and Fight the Fakes Week. Pharmacists, health workers, and the public were trained to identify, report, and avoid SFMs, with over 1,000 people reached. This campaign strengthened reporting awareness, reduced knowledge gaps contributing to AMR-related financial and health burdens and attracted national media coverage via Ghana News Agency.

Uganda

Implemented in Mukono, Gloria Kobusinge's project addressed SFMs and inappropriate antibiotic use in peri-urban/rural settings where community pharmacies and drug shops are the first point of care. The project trained over fifty health workers across pharmacies, drug shops, clinics, and veterinary practice, combining AMS training with community awareness. Results included improved identification and reporting of SFMs, better dispensing practices, increased patient counselling, and greater confidence among staff to refuse inappropriate antibiotic use - strengthening patient safety and alignment with Uganda's AMR strategy.



Nigeria

Implemented in Ibadan by Olayinka Adeyemi and coordinated from University College Hospital, this multi-component initiative combined a national essay competition with professional training and grassroots public engagement. Almost eighty essays from early-career pharmacists nationwide strengthened AMS, medicine-quality awareness, and leadership aligned with Nigeria's National Action Plan on AMR. In addition, webinars engaged over a hundred pharmacists and interns, while community sensitisation in motor parks and faith settings reached members of the public using local language messaging. The campaign reinforced safe medicine use, promoted reporting of SFMs and secured high-level institutional buy-in, including commitments for sustained funding and media advocacy.

Malawi

Mirriam Chingeni implemented a project strengthening AMS in community pharmacies across Blantyre, Lilongwe, and Salima. A Fight the Fakes–aligned training equipped twenty pharmacy professionals using simulations and real-life dispensing scenarios. The AMS toolkit was piloted, and a Malawi-adapted toolkit was finalised and converted into an accredited CPD course, creating scalable, sustainable guidance for responsible antibiotic use, patient counselling, and SFM detection/reporting.

Global Health Leadership Fellowships

Leadership development is central to sustaining AMS and IPC across health systems. In particular, CwPAMS has demonstrated how empowering pharmacists to leverage their expertise in the safe, effective and sustainable use of medicines is critical to tackling AMR in LMICs.

In Phase 1, the Commonwealth Pharmacists Association supported UK pharmacists working in LMIC settings to develop their leadership skills and expertise through the UK Chief Pharmaceutical Officer's Global Health Fellowship. In Phase 2, this expanded to the fully multilateral Africa Leadership Fellowship in AMS (ALF-A) initiative, with an Africa-only cohort in 2024 and a joint UK/Africa cohort in 2025, branded as UK-ALF-A.

The joint fellowship models of Phase 2 moved beyond traditional overseas placements to foster co-leadership, peer learning and joint problem-solving between UK and African pharmacists Through paired co-fellowships, participants worked collaboratively on AMS initiatives, strengthening quality improvement skills, data-driven stewardship, implementation science and service transformation, while building cultural competence, communication and programme management expertise.

For ALF-A and UK-ALF-A, a formal mentorship programme was launched which saw alumni fellows mentor new participants. This created continuity, strengthened peer support, and embedded a sustainable leadership pipeline across countries. The fellowship increasingly became more than a training programme, evolving into a growing professional network and sustainable community of practice.

Across all nine CwPAMS countries and all three iterations of the Fellowship initiative, CPA trained 112 pharmacists who led tangible system improvements that furthered the aims of CwPAMS at the local and regional levels. Fellows established AMS Committees, conducted PPS and antimicrobial consumption surveys, developed hospital antibiotic guidelines and tools, led AMS ward rounds, strengthened laboratory–clinical collaboration, contributed to national AMR strategies, and influenced regional and international policy formulation.

Evaluation surveys found that most fellows reported increased responsibility within their institutions, with many promoted into more senior clinical, managerial, or national leadership roles and crediting the fellowship with boosting their employability, higher skills and confidence.

These same fellows have also gained recognition at local, national, and international levels, presenting at major conferences, receiving professional awards, contributing to policy development, and serving on national AMR technical working groups. Fellows consistently describe the programme as "transformational," citing increased confidence, stronger professional identity, and the ability to influence multidisciplinary teams.

By combining technical expertise, contextual knowledge, structured mentorship, and shared leadership, CPA and CwPAMS have cultivated a confident and connected cadre of AMS leaders equipped to drive sustained change within institutions, influence national policy, and mentor the next generation of stewardship champions.

Testimonials from Fellows

"What stands out most to me is how ALF-A helped change the way others see me and how I see myself. Consultants who once questioned the role of pharmacists now actively seek my input, and students approach me for mentorship. Perhaps the biggest impact has been realising that leadership is not about being the "hero" but about creating space for others to thrive. That shift has shaped the way I work every day, and it has made me more determined to keep growing, keep giving back, and keep pushing for better stewardship and patient care."

"Being part of ALF-A really boosted my confidence to take on more responsibility. I moved from seeing myself mainly as a learner to actually guiding and mentoring others. The programme gave me practical leadership skills and a stronger voice in AMS work, which has helped me lead activities like stakeholder meetings, developing treatment guidelines, and representing my hospital in different national and international forums."

Substandard and Falsified Medicines

Substandard and falsified medicines (SFMs) remain a critical threat to patient safety and antimicrobial effectiveness in LMICs, where an estimated one in ten medicines is affected. This challenge is particularly acute for antimicrobials, as poor-quality medicines accelerate AMR and undermine public confidence in health systems By 2023, recognition of the significant risk posed by SFMs led to the introduction of a dedicated CwPAMS workstream to address systemic weaknesses the enable their circulation.

In recognition of this growing risk, in 2023 the programme introduced a dedicated SFMs workstream

Early outputs focused on foundational capacity-building and awareness-raising, including the development of a comprehensive SFMs e-learning course on supply chains and medical product quality by the CPA Academy, alongside a structured webinar series delivered across the eight African countries.

These educational interventions were specifically designed to explore local SFM challenges, strengthen understanding of detection and reporting mechanisms, and promote engagement with National Medicines Regulatory Authorities. Together, these resources helped establish a shared baseline of knowledge and highlighted the need for more coordinated, action-oriented approaches.

Building on this foundation the intervention evolved into a more structured and practice-focused SFMs Champions Training Scheme, designed to empower pharmacists with the skills, confidence, and structured support needed to translate awareness into sustained institutional and community-level action.

Through a blended learning model combining self-directed e-learning, interactive webinars, peer learning, mentorship, and campaign planning, 25 pharmacists strengthened their technical knowledge, leadership skills, and advocacy capacity, ready to identify, report, and advocate for action on SFMs, and embed medicine quality vigilance into everyday practice and organisational systems.

Champions were supported to design and deliver locally relevant SFMs awareness campaigns aligned with World AMR Awareness Week (WAAW) and Fight the Fakes Week (FtFW) 2025. These campaigns represented the practical culmination of the six-month learning journey, demonstrating how trained pharmacists can catalyse institutional and community-level change.

Collectively, these campaigns directly reached an estimated 6,500+ individuals, including healthcare workers, students, families, vulnerable groups, and the wider public. By integrating SFMs vigilance into AMS activities, strengthening reporting pathways, and empowering communities to recognise and avoid poor-quality medicines, the SFMs Champions Programme demonstrated a scalable, pharmacist-led model for tackling AMR through improved medicine quality and safer use.

Champions Leading the Fight Against SFMs

In Ibadan, Nigeria, Olayinka Adeyemi reached over two hundred people through webinars for 95 pharmacists and interns, and a roadshow at Ring Road Motor Park engaging over 100 community members in Yoruba. Participants reported increased confidence in counselling patients and identifying SFMs.

In Mukono District, Uganda, Lukubuya Derrick Jonathan led face-to-face engagement, reaching over 1,700 participants. Activities included training 100 pharmacy students, educating 1,000 school pupils, and building capacity among 130 health workers. Children reported intentions to seek care from health facilities and verify medicine authenticity.

At Chipata Central Hospital, Zambia, Neverson Njobvu integrated SFMs vigilance into institutional systems. Over 90% of hospital staff were trained, radio programmes extended awareness to the wider community, and the campaign reached over 1,000 individuals, earning national recognition.

In Kakamega County, Kenya, Dr Emmanuel Kurgat reached over 700 healthcare workers and 500 members of the public through the Pharmaceutical Society of Kenya Western Branch symposium, hospital CME sessions, and WAAW events, strengthening professional commitment to medicine quality vigilance.

In Kilimanjaro Region, Tanzania, Hamidu Rajabu trained 60 pharmacists with knowledge scores increasing from 55% to 80%. Participants reported increased confidence in detecting and reporting SFMs.

Approaches

Several key approaches were encouraged and utilised during the programme to enhance the impact of Partnership projects. CPA and GHP provided technical support to Partnerships in their adoption and implementation. They were specifically utilised during Phase 2, or, in the case of GESI, continued with more emphasis placed on specificity and impact.

Hub and Spoke Model

A major strategic innovation introduced by CwPAMS was the implementation of a Hub-and-Spoke Model to maximise reach and ensure sustainability. In adopting this Model, CwPAMS positioned hospital partners as flagship centres of excellence ('hubs') from which knowledge, expertise and technical guidance could be disseminated to surrounding institutions ('spokes'), enabling local interventions to have an impact on a regional scale. By learning from hub institutions, spoke sites are empowered to lead and sustain their own AMS interventions tailored to their local needs but rooted in proven best practice, whilst hub hospitals benefit from opportunities for peer exchange and shared problem-solving.

Initially, Phase 2 saw eight hospital partners chosen as 'hubs' serving between one and six local spoke sites each (total of 39 spokes). By the end of the programme the number of hubs had reached 18 hospitals, supporting a total of 54 spoke sites between them, reflecting both the progress of Health Partnerships and the scalability of the hub-and-spoke model.

In practice, the model operated through structured mentorship, joint planning and regular bidirectional knowledge exchange. Hub institutions supported spoke sites to deliver training, conduct PPS, analyse antimicrobial use data, and implement stewardship interventions, while sharing practical tools, protocols and standard operating procedures. Spoke sites contributed contextual insights, innovation and locally adapted solutions, creating opportunities for peer exchange, bilateral learning and co-development. This reciprocal dynamic strengthened ownership across the network and ensured that hubs themselves continued to refine and improve their own AMS approaches.

Evaluation findings show that the hub-and-spoke model functions as a highly effective implementation system. As well as improvements in clinical and technical delivery, the model strengthens system-level governance. The best performing Health Partnerships introduced dedicated project managers and strong communication processes, enabled by sustained engagement from senior leadership invested in the notion of their hospital as a regional centre of excellence.

As the programme progressed, we began to see spoke institutions develop the capacity and leadership required to be recognised as new centres of excellence. This transition to 'hub' status demonstrates the maturation of the model in practice, with emerging hubs beginning to support their own networks of partner institutions.

What began as a Health Partnership evolved into a growing, self-propagating system of stewardship leadership for regional impact.

Testimonial from Northumbria Healthcare NHS Foundation Trust & Kilimanjaro Christian Medical Centre Partnership (Tanzania): "The hub and spoke model has been positioned as a potential blueprint for broader implementation, supporting national objectives to strengthen antimicrobial stewardship across multiple health facilities. Engagement with the Ministry of Health, participation in national and continental AMR conferences, and ongoing communication with key leadership, including the Medical General Director, have facilitated alignment with policy priorities and strategic objectives."

Case study

How Malawi's Hub-and-Spoke Model Built National AMS Capacity

The Health Partnership between the Pharmaceutical Society of Malawi and Betsi Cadwaladr University Health Board in Wales joined CwPAMS in 2021 and formally introduced the Hub and Spoke model during Phase 2 to scale AMS nationally. As the largest hub-and-spoke network in the programme, it operated with seven health facilities strengthening stewardship structures across Malawi.

The hub directly trained over 120 healthcare workers, with cascade training reaching more than 500 additional staff across spoke sites. Further multidisciplinary staff were trained in 2025, with the network expanding to over 690 staff trained. Across all sites, AMS committees were established or revitalised and embedded within hospital governance structures, strengthening accountability and surveillance. The initial implementation of the Global PPS methodology at participating facilities established Malawi's first baseline data on antimicrobial prescribing, providing essential insights to guide targeted improvements in AMS.

In 2025 a former spoke - Queen Elizabeth Central Hospital - transitioned into a regional hub mentoring two other district hospitals, demonstrating the model's built-in pathway for institutional maturation and leadership transfer. The model also expanded beyond hospitals to engage community pharmacies, embedding stewardship across the continuum of care. Practical AMS toolkits were co-developed for both hospital and community settings and integrated into the Pharmaceutical Society of Malawi's CPD platform, while training materials were adopted by the AMR National Coordinating Centre to support national scale-up.

Through the gradual transfer of leadership responsibilities from established hubs to high-performing spoke institutions, alongside national alignment and institutional ownership, the partnership demonstrates how the hub-and-spoke model can catalyse durable stewardship impact from hospitals facilities, through to community and policy level.

The hub-and-spoke model can catalyse durable stewardship impact from hospitals facilities, through to community and policy level.

One Health

One Health is an approach that recognises that human health is intrinsically linked to animal and wider environmental health, including that of ecosystems. In analysing health through this wider lens, a One Health approach can address the full spectrum of disease control.

AMR is a key threat to the health of humans, animals and the wider environment, and inappropriate antibiotic usage is a shared issue. Environmental pollution, inadequate control of infections, and the migration of people and animals all play a part in facilitating the spread of resistance.

During Phase 2, the programme encouraged applicants to consider opportunities for implementation with a One Health focus and collaboration across sectors, in alignment with Fleming Fund principles.

Some Partnerships took on this challenge and advanced this work in various ways. One approach was to host joint training, sharing and learning and awareness raising activities with professionals from other sectors, including veterinarians, environmental health professionals, community health workers. Another approach was to focus on the research opportunities in Partnership work.

Case study

A One Health Approach Raising Awareness in Rural Kenya

The Partnership between Nanyuki Teaching and Referral Hospital and Dharura Global Emergency Care (with University Hospitals of Bristol and Weston) recognised that AMS requires a One Health approach, seeing the effect of antimicrobial usage in human and animal health as equally important.

A key focus of the Partnership's work has been on the knowledge and practices of pastoral communities in Northern Kenya in relation to AMS.

During Phase Two, the Partnership held community interviews which led to AMS champions developing a training programme for AMS guardians. These guardians are all female with a voice in their communities and have taken on the role of raising awareness of AMR.

Following the training, they led their first five awareness sessions with the support of the champions and a veterinarian and wrote a song, a powerful and inventive way to raise awareness. Strong links between the county veterinarian and communities are also now in place. Research undertaken by the Partnership underlines the critical need for sensitisation and training in communities where there are large gaps in knowledge of both antibiotics and of AMR.

Gender Equality and Social Inclusion

During the second phase, Partnerships made meaningful progress in integrating gender equality and social inclusion (GESI) into AMS initiatives.

Analysis using the Gender Responsive Assessment Scale shows that while many partnerships are specific about how they are addressing barriers to GESI, seven achieved potentially transformative outcomes.

The seven partnerships are distinguished by their contribution to shifting power relations, elevating marginalised voices, and embedding equity considerations throughout design and implementation processes of AMS activities.

Across the programme, Health Partnerships identified a range of barriers that limit equitable access to services, participation in AMS activities, and decision-making structures. These included gendered differences in access to healthcare and medicines, traditional norms that restrict women's availability to engage in AMS interventions, and documented inequities such as disproportionate antimicrobial prescriptions in maternity wards and higher rates of hospital-acquired infections among women.

Transformative approaches included more equitable gender representation in AMS Committees and expanded leadership opportunities for nurses, with reported shifts in nurses' influence in some facilities. One partnership noted the influence of a UK-ALFA Fellow with a physical disability, whose leadership helped normalise disability inclusion in AMS work.

There were also shifts in decision-making power, particularly for women pharmacists and nurses who took on AMS focal roles and leadership responsibilities.

In Zambia, focused community engagement empowered community members to demand accountability from health facilities, e.g. demanding legal documents and procedures for ascertaining if drug stores are registered. One partnership also reported the creation of a more collaborative, balanced, supportive atmosphere at the facility, due to shifts in decision-making agency and leadership roles for female health workers.

Beyond this, partnerships implemented a range of strategies aimed at increasing the inclusiveness and responsiveness of AMS interventions. Partnerships focused on training health workers on GESI principles and promoting diverse representation within AMS Committees to ensure that women and other marginalised groups were included in decision-making, as well as playing a lead role in managing AMS activities. Several HPs used strategies to actively involve those who face greater barriers to accessing information and participation in AMS initiatives, for example through embedding accommodations such as flexible training hours to support women's dual professional and domestic work.

The most consistent outcome was improved access to resources, particularly AMR information. Examples include local-language outreach to pastoralist communities in Kenya, targeted engagement of women and marginalised groups in Ghana, adapted training materials for people with disabilities in Zambia, and infrastructure such as hand sanitising stations intentionally designed for children and people with mobility challenges in Uganda.

Progress with GESI activities over the course of the programme shows evidence for scalability of these activities. However, some challenges with implementation remain and demonstrate that adaptation and consideration of local socio-political and health system contexts remain essential.

Partnerships that achieved the most transformative change were those that explicitly aimed to shift power relations, broaden the roles and integration of marginalised groups in AMS, and integrated GESI considerations and resources throughout their project design rather than treating them as isolated activities.

> The most consistent outcome was improved access to resources, particularly AMR information

Impact Report 2026

Looking Ahead

Sustainability

"From inception, CwPAMS was not implemented for Nigeria, it was built with Nigeria. The intentional partnership between Global Health Partnerships (GHP), the Commonwealth Pharmacists Association (CPA), Ducit Blue Solutions, and NCDC ensured national ownership from the outset, embedding antimicrobial stewardship firmly within our health system architecture rather than operating at its margins. By strategically engaging hospital leadership alongside frontline clinical teams, the programme secured institutional commitment that extends well beyond the project lifecycle. CwPAMS's legacy transcends strengthened technical capacity; it establishes a resilient governance and accountability framework for Nigeria's antimicrobial stewardship response, a compelling model of collaborative, country-led sustainability from Nigeria to the world."

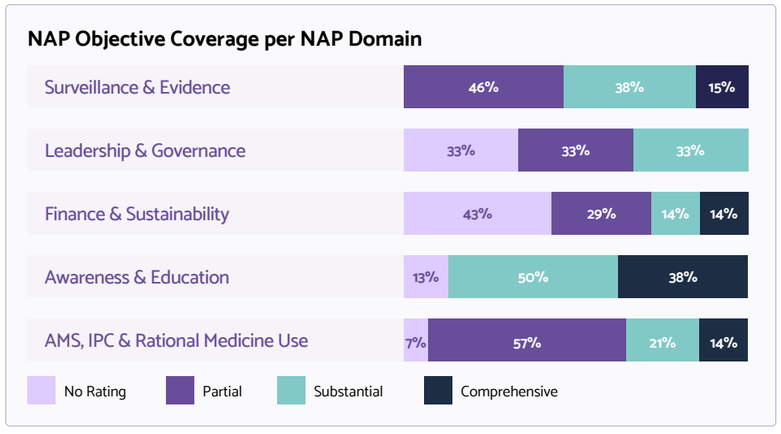
Tochi Okwor,
Nigeria Centre for Disease Control and Prevention (NCDC)

As the above sections have shown, sustainability has been woven into the programme from the beginning. The Health Partnership model works within existing health systems and structures, building capacity and leading process improvement, while ensuring that the focus of individual projects is led by strong local needs identification and ownership.

Certain technical areas have been designed specifically to drive sustainability. Leadership fellowships, for instance, are developing internal capacity for AMS leadership within health systems, while the Hub and Spoke model provides a platform for continued improvement at the facility level.

A strong aspect of sustainability for the programme was driven by its alignment with national AMR strategies. This arose from programme scoping ahead of Phase 2, and the strong Partnership engagement with Governments. Generally, CwPAMS delivered meaningful contributions across National AMR Action Plan (NAP) domains; particularly in the areas of awareness and education, surveillance and evidence, and AMS, IPC and Rational Medicines Use.

Level of CwPAMS contribution to different domains within National AMR Action Plans (NAPs)



Across the programme, Health Partnerships have also been able to create or influence positive change at the national or regional level, embedding approaches to ensure a continuous focus on AMS at a policy level. Some examples include:

Kenya

In Kenya, policy and guidance at health facilities has been improved. In Kitale County Referral hospital, a new hospital formulary was developed, guiding prescription practices, which has influenced other facilities, as well as regional governance mechanisms. National stakeholder engagement throughout the programme has also resulted clear commitments to sustain the work – for example, the County Integrated Development Plan for Kakamega County has committed 1% of the total county health budget to AMS.

Malawi

In Malawi, at national level, learnings from CwPAMS informed Malawi's National Action Plan (NAP) on AMR and District Implementation Plans, strengthening alignment between policy and practice. The Ministry of Health recognises CwPAMS as a transformative initiative that has significantly strengthened the country's response to AMR between 2021 and 2025.

Uganda

In Uganda, a particular success has been the development of the Parliamentary Forum for AMS which has been developed to promote awareness, advocate for policy change, support research, and foster collaboration. CwPAMS played a key role in elevating AMR through national events, leading to the Forum's initiation. The Forum gathers data and reports to Parliament and is currently seeking expansion to an African Parliamentary Forum on AMR.

Evidence across CwPAMS countries shows that sustainability was achieved through strengthening wider health workforce and health system functions. Partners consistently described sustainability as an ongoing process, resulting from CwPAMS' deliberate design to promote local ownership, institutionalisation of AMS, leadership development, data use, and networked collaboration. Ten critical success factors underpinning this success have been identified:

1. Local ownership

Sustainability increased where AMS Action Plans were defined by facilities themselves and aligned with national AMR priorities. Partners said CwPAMS allowed them to 'customise specific solutions' and develop action plans based on the gaps at the facilities. This strengthened the relevance of activities and the motivation and ownership by the health workforce.

2. Institutionalisation of AMS

AMS Committees, ward rounds, and guidelines became part of routine governance and quality improvement systems at facilities. Senior management buy in allowed AMS to become a standing agenda and incorporated into facilities' budgets.

3. Hub and Spoke Model

This model enabled decentralised mentorship and peer learning. Uganda participants reported 'very nice gains at a very low investment,' and Zambia noted that all provincial hospitals now have AMS Committees due to national rollout of the model at all provincial hospitals, evidencing a significant sustainability achievement.

4. Leadership engagement and national alignment

AMS efforts became more sustainable once senior hospital leaders, regional authorities, and national bodies endorsed them and became part of CwPAMS AMS initiatives. Partnerships aligned data and reporting with national and regional systems, such as Kenya's use of the Kenya Health Information System (KHIS) and Ghana's reporting to the Regional Health Directorate.

5. Data systems that inform action

Routine generation and use of PPS, antibiograms, and microbiology data enabled facilities to shift from reactive reporting to proactive clinical decision-making. Countries provided evidence of data which informed prescribing practices, refined treatment protocols, and informed supply and procurement. Embedding usable data loops made stewardship actionable and sustainable.

6. Workforce development

Training that included multiple cadres (e.g. pharmacists, nurses, lab staff, cleaners, environmental health officers) reduced dependency on certain individuals and created a shift towards multidisciplinary leadership, with pharmacists now taking recognised leadership roles. Train-the-Trainer approaches and embedded induction processes for staff supported the development of a more resilient health workforce.

7. Strong partnerships and collaboration

Long-standing relationships, bi-directional learning, and cross-sector collaboration supported continuous sharing of AMS best practices and challenges. Partnerships, which involved multiple institutions (including One Health sector), enabled technical exchange, problem-solving, and co-creation of AMS interventions that were adapted to fit the facilities' needs.

8. System-linked alignment

Sustainability was driven by shifting from individual-led activities to AMS intentionally being linked to facility, regional and national governance structures. Formal AMS Committees, community engagement, student advocacy, and integration into existing structures (e.g. into Drugs and Therapeutics Committees) enabled stewardship to become part of broader quality improvement processes.

9. Pharmacist leadership

Pharmacists represent an often-underutilised pool of talent, skill and expertise within the multidisciplinary team, with leadership development opportunities often lagging behind those of other professions. Investment in pharmacists to step into their full clinical competency as medicines experts can be a transformative and cost-effective way of driving sustainable innovation in AMS in LMICs in both hospital and community settings.

10. Value for Money

The programme demonstrated strong economy, efficiency and effectiveness. The focus on the improvement of embedded systems drove strong impact measured against inputs. The Health Partnership model leveraged volunteer contributions, and phased implementation led to reassessment and reinvestment of funds.

Future Direction

CwPAMS has made significant progress in strengthening AMS governance, awareness, training and institutionalisation particularly at facility level, demonstrating a successful and adaptable model.

However, system-level gaps continue to limit sustainability and scale, including inadequate laboratory and data infrastructure, under-utilisation of data for decision-making, workforce capacity constraints, uneven implementation, and insufficient political and financial commitment through national planning and budgets.

Sustaining and scaling impact will require AMR to be prioritised within national health agendas (not as separate AMR-focused plans), embedded within governance, regulation and financing frameworks, and supported by expanded multi-cadre pre-service and continuous professional development training, alongside decentralised Hub and Spoke mentorship.

Continued investment and senior leadership endorsement will be critical to embedding stewardship as routine practice and maintaining the gains of CwPAMS while expanding reach to new contexts.

Authors of the Report

Main Authors/Compilers

This report was produced by CPA and GHP staff and reflects the collective effort of the CwPAMS partnership. While the core drafting and analysis were led by a small writing team, the report would not have been possible without the substantial contributions of more than 50 colleagues and collaborators. We gratefully acknowledge all those who contributed to the collation, analysis, and interpretation of data, provided technical input, reviewed drafts, and supported coordination across countries and workstreams. Their expertise, commitment, and collaboration underpin the findings and impact presented in this report.

Commonwealth Partnerships for Antimicrobial Stewardship

Acknowledgements

GHP and CPA would like to express their sincere gratitude to all those who have enabled CwPAMS to achieve the successes set out in this report: The Change Exchange, Ducit Blue Solutions, UK and Partner Country institutions, and Health Partnerships who designed and led multiple interventions.

We would also like to say a special thank you to the thousands of volunteers and health workers across the world whose dedication and expertise have made this programme possible.

CwPAMS was funded by the UK Department of Health and Social Care's Fleming Fund programme using UK aid.

The views expressed in this publication are those of the authors and not necessarily those of the UK Department of Health and Social Care.

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Published
March 2026

Global Health Partnerships
FORMERLY THET

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