



The Fleming Fund

Quarter 2, 2020

Programme Results

Introduction

The Fleming Fund brings evidence and people together to encourage action against drug resistance for a healthier world. The programme is comprised of a wide-ranging portfolio of grants that are focused on tackling antimicrobial resistance primarily by supporting national antimicrobial resistance (AMR) surveillance systems. This update highlights key achievements and progress across the country, regional and fellowship grants.

Highlights

- Despite the ongoing pandemic, Fleming Fund grants have been leveraged in several countries to support the COVID-19 response. For example, in Nepal, biosafety cabinets were reallocated to support COVID-19 testing in 7 sites; in Bhutan the AMR Animal Health Laboratory Fellow contributed to the establishment of a molecular diagnostic laboratory for SARS-CoV2 detection; and the Whole Genome Sequencing grant has been extended so that countries in Africa can access whole genome sequencing for SARS-CoV-2.
- Grantees have also been exploring innovative ways to conduct training and manage meetings virtually, despite COVID-19 restrictions. In Pakistan, grantee DAI converted a five-day training on “Whole Genome Sequencing Data Management” to a two-week online training course. Additionally, DAI held AMR Basics and AMR Advanced courses online for surveillance site and reference laboratory staff.
- Key stakeholders in Indonesia also held a virtual event marking the signing of an Memorandum of Understanding between DHSC and the Indonesian Government for the Fleming Fund Country Grant.

Key Figures

55

Number of Active Grants

112

Number of Fellows

161

Number of Laboratories Reporting on the Laboratory Improvement Programme

£138m

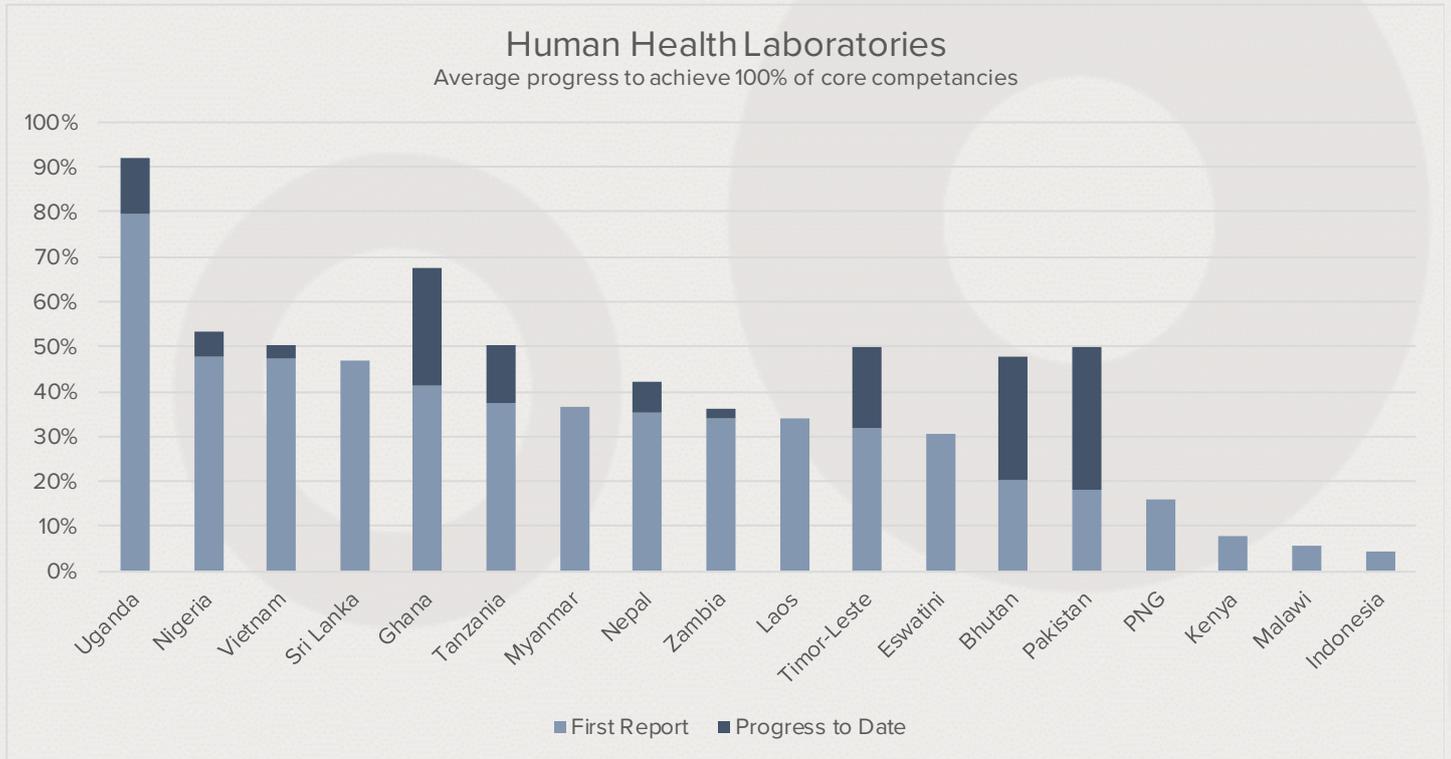
Signed in Grant Agreements

Speakers and signatories from the Indonesian side included the Minister of Health Terawan Agus Putranto, Secretary General Oscar Primadi, Director General Bambang Wibowo, Director Tri Hesty and Subdirectors. British government representatives included Lord Bethel of Romford and HM Ambassador to Indonesia and Timor-Leste, Owen Jenkins.

- A Fleming Fund Fellow in Nigeria, Mabel Aworth, has had her research published in the BioMed Central Journal. It is available online here: [“Extended spectrum beta-lactamase producing E.coli among humans, chickens and poultry environments in Abuja, Nigeria”](#).

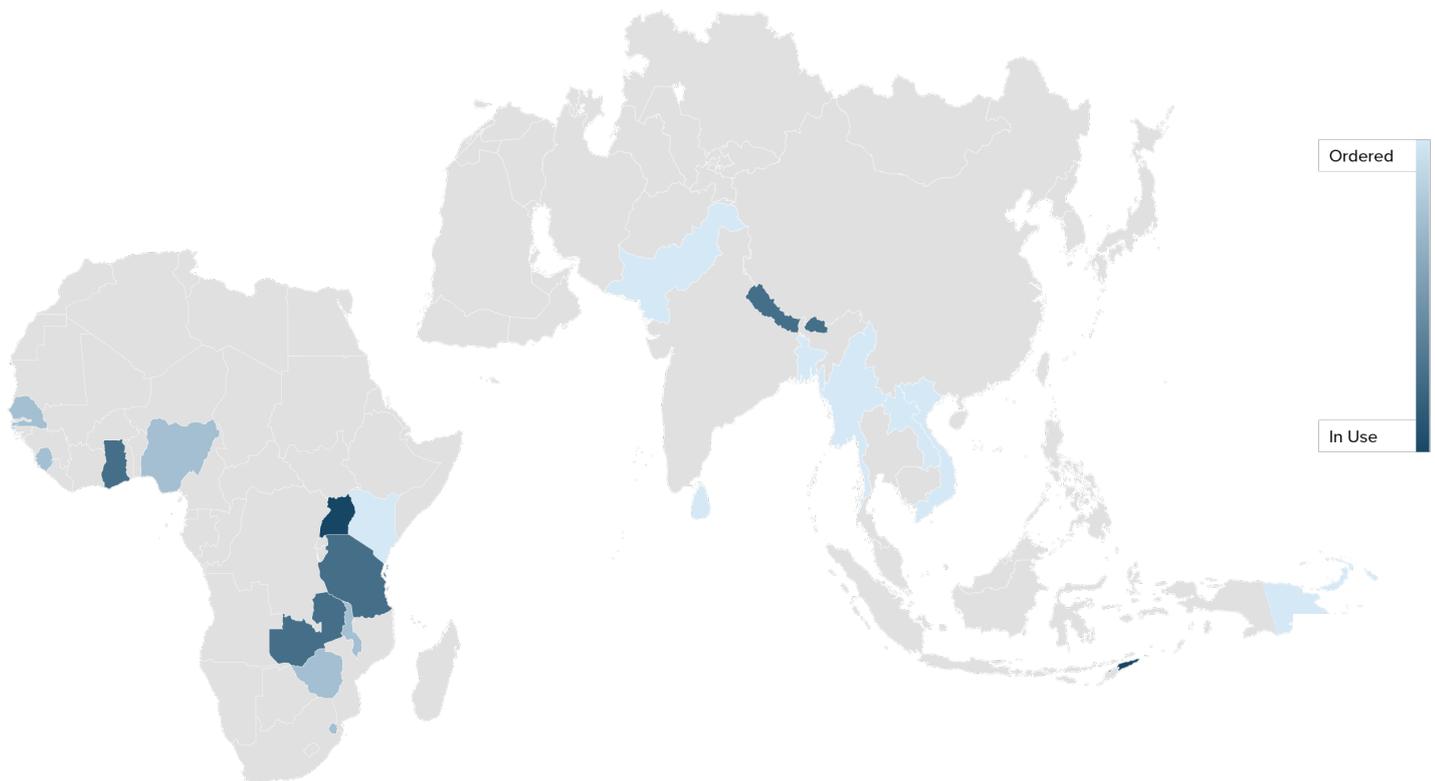
Laboratory Capacity Building Progress

The Fleming Fund invests in laboratory capacity building by supporting training, data management systems, laboratory equipment and biosafety. Throughout the programme laboratories benchmark achievements against a set of critical competencies like culturing specific bacteria, conducting susceptibility testing, managing data, etc. The graph highlights each country's average progress to achieving 100% of the critical competencies within our framework.



Laboratory Equipment Delivery

Status of key laboratory equipment delivery to target countries



Operational Context

Although the ongoing COVID-19 pandemic has been a challenge for Fleming Fund grantees and beneficiaries, all stakeholders are working to adapt to the new environment by continuing work and holding meetings virtually, where possible. In some countries, domestic travel restrictions have been lifted and office working has partially resumed, slightly easing programme constraints.

Strengthening Surveillance Systems & Laboratory Capacity

Through a portfolio of tailored Regional and Country Grants, we allocate funding to train pharmacists, epidemiologists, veterinarians, clinical and laboratory staff, purchase new equipment, develop protocols for surveillance and laboratory practices, and install data management systems. We support a One Health approach to tackling AMR, investing in systems that share information within and across human, animal and environmental health sectors.

See figures on page 2 for details on grant achievements and performance.

Developing Workforce Capacity

Equipping the current and future generation of AMR technical experts, policy makers and laboratory managers is critical to safeguarding the Fleming Fund's investment. Given the complex nature of bacteriology and the public's relative lack of familiarity with AMR, a community of global leaders is needed. We are working to build capacity of key individuals in positions of influence or technical excellence to provide them with the support they need to take their country's AMR agenda forward.

Fellowship Update

Fellowships support the professional development of practitioners from across animal, environment and human health disciplines. Fellowship cohorts from each country work on a collective project together to investigate a relevant One Health issue within their respective country.

Uganda Collaborative Project

Fellows in Uganda have been working on a collaborative project to compare AMR patterns in humans and animals within two districts

in the country. These districts have different livestock keeping practices and also host several AMR surveillance laboratories. Samples from patients with bacteria are being taken from hospitals in Jinja and Mbarara and linked with samples from their household and farms. The bacteria present in the samples will be identified and levels of antimicrobial resistance assessed. Concurrently, access and use of antibiotics will be surveyed on farms, in households and in drug shops to build a picture of antibiotic availability and control. The project will test the feasibility of adopting a One Health surveillance system in the Jinja and Mbarara Districts and provide initial data on the magnitude of AMR and the AMR transmission cycle in Uganda. Although the project was due to complete in June, COVID-19 has contributed to data gathering delays. Details from the project's findings will be available in the coming months.

Regional Grants Update

Regional Grants tackle global/regional AMR issues such as capacity building, quality assurance and protocol and policy development. The grants below both focus on building AMR workforce capacity across Africa.

Regional Grant 8: WHOLE GENOME SEQUENCING

The National Food Institute at the University of Denmark is lead grantee for the Whole Genome Sequencing Grant which is tasked with training and developing workforce capacity in three core sequencing centres in Nigeria, Tanzania and South Africa. The University has recently developed e-learning courses for eligible participants, highlighting links between genome sequencing and AMR. Thus far over 50 participants have participated in the course.

Regional Grant 4: MICROBIOLOGY

The African Society for Laboratory Medicine (ASLM) is the lead grantee for the Microbiology Training grant which is supporting microbiology and epidemiological on-the-job training across Africa. Thus far, ASLM has developed objectives and learning pathways for epidemiology and AMR laboratory training. They have also held a virtual kick-off workshop with the African Union and African CDC to develop plans to distribute and integrate curriculum within priority countries prior to implementation.

Developing Strong AMR Governance

By building partnerships with governments and equipping them to collect and use data, we encourage countries to use antibiotic drugs better and invest in appropriate strategies to tackle AMR. Our governance work is underpinned by the principle of country ownership and developed in close alignment with countries' own national priorities, strategies and plans.

Technical & Policy Document Creation

- In Vietnam guidelines on **local transportation of isolates** are drafted in English and are in the process of being translated into Vietnamese.
- In Pakistan, a **draft communications strategy for AMR** was developed following in-house discussions and is awaiting feedback from the government. The Country Grant team also participated in the launch of Pakistan's first 'National Guidelines on Infection Prevention and Control (IPC)' - developed by the Government of Pakistan in collaboration with the World Health Organization.
- In Laos, **National Antibiotic Guidelines** are drafted and in the process of being translated.
- In Tanzania, a **Biosafety and Biosecurity Protocol and operations manual** is under review that will identify antimicrobial resistance hazards
- In Nigeria, the team has drafted policies on

operation and management of a biorepository.

- In Bhutan, the AMR technical committee approved **AMR surveillance guidelines and an AMR sampling protocol**.
- In Uganda, a **One Health data-sharing agreement** that details guidelines on sharing One Health AMR and AMU/C data among the four key ministries was discussed during the AMR Committee meeting. It was resolved in that the data-sharing agreement will be included existing memorandum of understanding (MoU) with the line ministries.

Data Sharing and Use

- Developers of the Laboratory Information Management System in Zambia are working to link the LIMS and WHONET together to improve data management at a site level. Zambia is also preparing to submit AMR data to GLASS.
- In Uganda, surveillance sites continued to utilise AMR data to create awareness on the burden of AMR among health workers and inform clinicians' decisions for patient care. Also, the data generated from AMR and AMUC surveys has informed the development of different policy documents in line ministries, especially on antibiotic use and procurements.

The Fleming Fund in Action



[Read more](#) about our impact in Timor-Leste

“The Menzies team visit the laboratory and the hospital and then train local doctors to use the lab. Now we see the number of laboratory samples really improve...”

The Fleming Fund is a £265 million UK aid programme supporting up to 24 low- and middle-income countries generate, share and use data on antimicrobial resistance. Visit www.flemingfund.org for more information.

