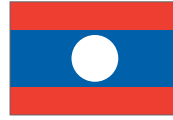




## LAOS



The Department of Health and Social Care (DHSC)'s Fleming Fund is a UK aid programme that supports up to 25 countries across Africa and Asia to tackle antimicrobial resistance (AMR), a leading public health threat, globally. 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.

## Country Context

Laos has been receiving support from the Fleming Fund since 2019. At the start of Phase I, Laos had a NAP (National Action Plan) in place, developed by the Tripartite Alliance, but without a national AMR surveillance system. Some swine surveillance had been conducted during 2018-2019, but the implementation of the NAP had not progressed due to resource constraints.

At the end of phase I, the national AMR surveillance system in human health (HH) and animal health (AH) started to be implemented. The Laos Country Grant in phase 2 aims to build on and maximise the impact of investments made to date by supporting the multi-stakeholder revision of the NAP for AMR. This involves consolidating surveillance toward an integrated One Health system to produce data-driven decisions and policymaking and continue to decentralise the AMR response and planning.



## Phase 2 Country Grant – Expected Results



Expand AMR surveillance in food animals to include aquaculture. A new national AMR surveillance strategy for aquaculture will be developed.



In HH, support the National Center for Laboratory and Epidemiology and eleven HH sites; and in AH, the National Animal Health Laboratory (NAHL), National Aquaculture Laboratory (NAL), and two AH sites to produce quality data and strengthen bacteriological diagnostic techniques and bioinformatics.



Establish an antimicrobial usage (AMU) surveillance system at the Department of Livestock and Fisheries (DLF), with the aim of collecting and analysing data on the drugs used in AH.

11

Deliver clinical training at 11 sites, to improve the quality of data produced by laboratories.



Undertake laboratory assessments at surveillance sites as per demand from National Centre of Laboratory and Epidemiology technical working group.



Develop capacity improvement plans for surveillance sites.



Conduct biosafety and biosecurity training and tailored microbiology training at all supported sites.



Conduct Point Prevalence Surveys at all supported surveillance sites.

## Phase 2



### Country Grant

**Grantee:** Food and Agriculture Organisation  
**Value:** £1,199,067  
**Duration:** Apr 2024 - Dec 2025

**Grantee:** Fondation Mérieux  
**Sub grantees:** Lao-Oxford-Mahosot Hospital-Wellcome Trust Research Unit  
**Value:** £1,600,000  
**Duration:** Jan 2024 - Dec 2025

### Fellowships

**No. of Fellows:** 10  
**Host Institute:** Fondation Mérieux  
**Total value:** £661,209 (Across multiple countries, including Laos)  
**Total duration:** Nov 2023 - Dec 2025

### Regional Grants

(Across multiple countries, including Laos)

**University of Melbourne**  
The Asia Pacific Centre for Animal Health  
AMR and One Health South East Asia (AMROH SEA)  
**Value:** £1,374,992  
**Duration:** Jan 2024 - Dec 2025

**International Vaccine Institute**  
Capturing Data on Antimicrobial Resistance Patterns and Trends in Use in Regions of Asia (CAPTURA)  
**Value:** £3,186,597

**Technical University of Denmark**  
External Quality Assessment of Laboratory Data Asia (EQAsia)  
**Value:** £2,497,995  
**Duration:** Nov 2023 - Dec 2025

### International Vaccine Institute

Regional Antimicrobial Resistance Data Analysis for Advocacy, Response and Policy (RADAAR)  
**Value:** £1,999,956  
**Duration:** Dec 2023 - Dec 2025

### International Vaccine Institute

Technical Assistance for Clinical Engagement Asia (TACE Asia)  
**Value:** £1,882,436  
**Duration:** Feb 2024 - Dec 2025

### International Vaccine Institute

Technical Assistance for Data and Evidence Use Asia (TADEU Asia)  
**Value:** £1,687,091  
**Duration:** Dec 2023 - Dec 2025

### African Society for Laboratory Medicine

Qualifying the Workforce for AMR Surveillance in Africa and Asia (QWArS)  
**Value:** £2,200,050  
**Duration:** May 2023 - Dec 2025

### Strategic Alignment Grants

(Across multiple countries, including Laos)

**Brigham and Women's Hospital**  
WHONET: Management and Analysis of Microbiology Laboratory Data  
**Value:** £453,328  
**Duration:** Mar 2024 - Dec 2025

**Foundation for Innovative New Diagnostics**  
FIND: Enhance Laboratory Capabilities, Data Visualisation, and Digital Health Platforms  
**Value:** £1,769,837  
**Duration:** Mar 2024 - Dec 2025

# Phase 1



## Country Grants

### Country Grant 1

**Grantee:** United Nations Office for Project Services

**Value:** £2,152,202

**Duration:** Apr 2019 - Jun 2023

### Country Grant 2

**Grantee:** Foundation Mérieux

**Value:** £2,219,774

**Duration:** Mar 2021 - Mar 2024

## Fellowships

**Number of Fellows:** 11

**Host Institution:** Mahidol University, Faculty of Medicine Thailand and Foundation Mérieux

**Value:** £640,000

**Duration:** May 2019 - July 2023

## Regional Grants

(Across multiple countries, including Laos)

### International Vaccine Institute

Capturing Data on Antimicrobial Resistance Patterns and Trends in Use in Regions of Asia (CAPTURA)

**Value:** £2,070,980

**Duration:** Jan 2019 - Sep 2023



### Technical University of Denmark

External Quality Assessment of Laboratory Data Asia (EQAsia)

**Value:** £4,247,345

**Duration:** Jan 2020 - Oct 2023

### International Vaccine Institute

Regional Antimicrobial Resistance Data Analysis for Advocacy, Response and Policy (RADAAR)

**Value:** £2,715,217

**Duration:** Sep 2019 - Nov 2023

### African Society for Laboratory Medicine

Qualifying the Workforce for AMR Surveillance in Africa and Asia (QWArS)

**Value:** £3,924,546

**Duration:** Oct 2019 - Apr 2023

## Strategic Alignment Grants

(Across multiple countries, including Laos)

### Brigham and Women's Hospital

WHONET: Management and Analysis of Microbiology Laboratory Data

**Value:** £889,044

**Duration:** Apr 2022 - Feb 2024

### Commonwealth Pharmacists Association

Surveillance and Prescribing Support for Antimicrobial Stewardship Resource Capacity Building (SPARC)

**Value:** £1,152,946

**Duration:** Dec 2021 - Feb 2024

### Foundation for Innovative New Diagnostics

FIND: Enhance Laboratory Capabilities, Data Visualisation, and Digital Health Platforms

**Value:** £2,586,227

**Duration:** Apr 2021 - Feb 2024



# Phase 1 – Key Achievements



HH AMR surveillance network expanded from three to eight surveillance sites.



A biorepository system was established and a Standard Operating Procedures on bacterial storage were developed, enabling NAHL to perform passive AMR surveillance.



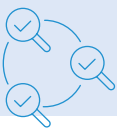
Antimicrobial usage (AMU) surveillance system developed, and hospital AMC data collected from three hospitals.



The private sector, including pig and poultry farmers and slaughterhouse owners, collaborated contributing to the development of AMR surveillance.



AMR surveillance data enhanced to align with WHO guidelines and a series of PPS conducted on antibiotic use in hospitals.



Three rounds of AMR surveillance were conducted in healthy pigs and poultry across five provinces, focused on four bacteria.



Bacterial identification and AMR testing at NAHL resulted in AMR data integrated into the WHONET system.



DLF was supported to collect data on imported drugs intended for use in animals from private sector.



NAHL performed identification of *Enterobacter* and *Campylobacter*, conducted Antimicrobial Susceptibility Testing (AST), participated in second round of EQAsia, and established functioning national AMR passive surveillance system.



Microbiology training course delivered for 10 staff from 8 supported HH surveillance sites, followed by monitoring visits from Chiang Mai University. Blood culture systems established at eight hospitals to increase the quantity of data reported.



Improvement of AMU data collection and of the reporting system at the Division of Veterinary Services. AMU surveillance on pig and poultry farms has been conducted in seven provinces.



Data collection and analysis of AMR/AMU/AMC surveillance were completed at national level.



GLASS AMR data collection was improved with data submitted to WHO. Results from collaborative research projects were shared with policymakers and provincial hospitals, WHO representatives and stakeholders in Laos.



Fleming Fellows played key roles in the National AMR Surveillance and Control Committee. They provided training, technical advocacy, capacity building to technical and laboratory staff and farmers at surveillance sites.



AMR and AMU questionnaires plus rapid laboratory quality assessment conducted to verify data availability and grade data.



The Fleming Fund

