



## PAPUA NEW GUINEA



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

Papua New Guinea (PNG) began to work on AMR in 2015 and finalised its first National Action Plan (NAP) with support from the Fleming Fund in 2019. The NAP commits PNG to a One Health (OH) approach and was a joint effort by the National Department of Health (NDoH), Department of Agriculture and Livestock, and the Department of Environment and Conservation.

PNG's AMR NAP resulted in the establishment of robust AMR governance, One Health multisector collaboration, an annual AMR symposium, registration of PNG with WHO Global Antimicrobial Resistance and Use Surveillance System (GLASS), and training for fellows to provide sustainable leadership on AMR issues.

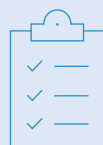
The PNG Country Grant in phase 2 aims to build on and maximise the impact of investments made to date by supporting the multi-stakeholder revision of the NAP for AMR. This involves consolidating surveillance toward an integrated OH system to produce data-driven decisions and policymaking and continuing to decentralise the AMR response and planning.



### Phase 2 Country Grant – Expected Results



Support implementation of active AMR surveillance in poultry and the piloting of AMR surveillance in aquaculture.



National Agriculture Quarantine and Inspection Authority (NAQIA) is to report antimicrobial usage (AMU) data into the WOA and AMR surveillance data into the FAO.



Build improved surveillance capacity for laboratories to obtain core standards.



Revise the AMR NAP (2019-2023) for the 2024-2030 period.



Initiate Biosafety and biosecurity laboratory practices at National Animal Health & Food Testing Laboratory (NAHFTL)/NAQIA.



Develop the capacity for NAQIA to perform bacterial identification and Antimicrobial Susceptibility Testing (AST) of all relevant bacteria.



Develop an OH report on AMU and AMR and share with NAMRSC, other relevant stakeholders, via relevant media and technical platforms.



Upload of AMR data and analysis to GLASS system using WHONET.



Strengthen key AMR governance structures (NAMRSC, Secretariat, and TWGs) established.

## Phase 2



### Country Grant

**Grantee:** Burnet Institute  
**Value:** £3,299,999  
**Duration:** Apr 2024 - Dec 2025

### Fellowships

**No. of Fellows:** 9  
**Host Institute:** The Peter Doherty Institute for Infection and Immunity  
**Total value:** £654,488 (across multiple countries, including PNG)  
**Total duration:** Nov 2023 - Dec 2025

### Regional Grants

(Across multiple countries, including PNG)

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

**Liverpool School of Tropical Medicine**  
Gender, Equity and Antimicrobial Resistance Mainstreaming (GEAR up)  
**Value:** £2,199,925  
**Duration:** Feb 2024 - 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**  
Capturing Data on Antimicrobial Resistance Patterns and Trends in Use in Regions of Asia (CAPTURA)  
**Value:** £3,186,597  
**Duration:** Oct 2023 - Dec 2025

### Technical University of Denmark

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

### 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

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

### Strategic Alignment Grants

(Across multiple countries, including PNG)

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

**Commonwealth Pharmacists Association**  
Surveillance and Prescribing Support for Antimicrobial Stewardship Resource Capacity Building (SPARC)  
**Value:** £806,742  
**Duration:** Mar 2024 - Dec 2025

## Phase 1



### Country Grants

**Grantee:** Burnet Institute

**Sub-grantees:** PNG Institute of Medical Research, the Pacific Region Infectious Diseases Association), the Infectious Diseases Department from Alfred Hospital, Beyond Essential Systems, and two resource partners: the Australian Animal Health Laboratories, and APCA Melbourn Veterinary School from the University of Melbourne.

**Value:** £7,729,230

**Duration:** Jan 2020 – Dec 2023

### Fellowships

**Number of Fellows:** 8

**Host Institution:** The Peter Doherty Institute for Infection and Immunity

**Value:** £640,000

**Duration:** Nov 2019 - Jul 2023

### Regional Grants

(Across multiple countries, including PNG)

**International Vaccine Institute**

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

**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

### Strategic Alignment Grants

(Across multiple countries, including PNG)

**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



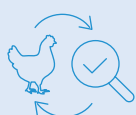
# Phase 1 – Key Achievements



National AMR governance structure strengthened and supported through monthly TWGs and annual AMR symposium.



Supported laboratory refurbishment, provision of equipment, consumables, and reagents, and staff training.



Development of national AMR surveillance plan, antimicrobial consumption (AMC) and AMU surveillance plans, and finalisation of AMR surveillance plan in poultry.



Supported all laboratories to shift from recording microbiology results on paper to an electronic format to facilitate data sharing at the national level, starting with training.



Development of AMR surveillance standard operating procedures (SOP) and reporting templates



Strengthened and supported the function of the Pharmaceutical Services Standards Branch under the NDoH in the role of AMR Secretariat, which reports to the multisectoral NAMRSC.



Laboratory staff completed WHO biosafety training and microbiology skills competency assessment at the Central Public Health Laboratory (CPHL) and Port Moresby General Hospital.



Fellows completed the collaborative project, 'Assessing the Knowledge of One Health Concept in Key Sectors of Papua New Guinea' and are due to publish.



Implementation of laboratory management software at CPHL and use of SENAITE LIMS to aggregate AST data on GLASS pathogens from four surveillance sites.



The National Antimicrobial Prescribing Survey, the provincial AMR Network, and the PNG AMR Network Webinar were established and conducted by fellows.



Training materials and SOPs were developed, and staff were trained on data management, analysis, and interpretation.



Fleming Fellows' involvement in reviewing and drafting the National AMR Surveillance Guidelines and the Biosecurity Policy for PNG resulted in policy change, raising awareness on AMR and the importance of surveillance.



External Quality Assessment (EQA) is in place for peripheral surveillance labs.

# 43

43 training modules completed by national reference laboratory staff in laboratory microbiology. Biosafety manuals and biosecurity SOPs developed and endorsed by the NAHFTL/NAQIA.



Analysis of AMR data collected created a preliminary baseline and exemplified the use of data to understand and improve the facilities and testing practices.



The  
**Fleming Fund**

