

THE FLEMING FUND COUNTRY GRANT

NEPAL



BACKGROUND

Since 2018, the Fleming Fund Country Grant for Nepal (FFCGN) aims to strengthen the capacity of human resources, laboratory and surveillance systems for antimicrobial resistance (AMR), antimicrobial use (AMU) and antimicrobial consumption (AMC) in human, animal, food and environment sectors through a One Health approach.

The Department of Health and Social Care (DHSC)'s Fleming Fund is a UK aid programme supporting up to 25 countries across Africa and Asia to tackle AMR, a leading public health threat across the world. The Fund invests in strengthening surveillance systems through a portfolio of country grants, regional grants, and fellowships managed by DHSC's partners.

The FFCGN is led by grantee FHI 360 Nepal in collaboration with the Government of Nepal (GoN)'s Antimicrobial Resistance Multi-sectoral Steering Committee (AMRMSC).

FFCGN AT A GLANCE

Funded by:

UK aid, the Fleming Fund

Managed by:

Mott MacDonald

Implemented by:

FHI 360 Nepal

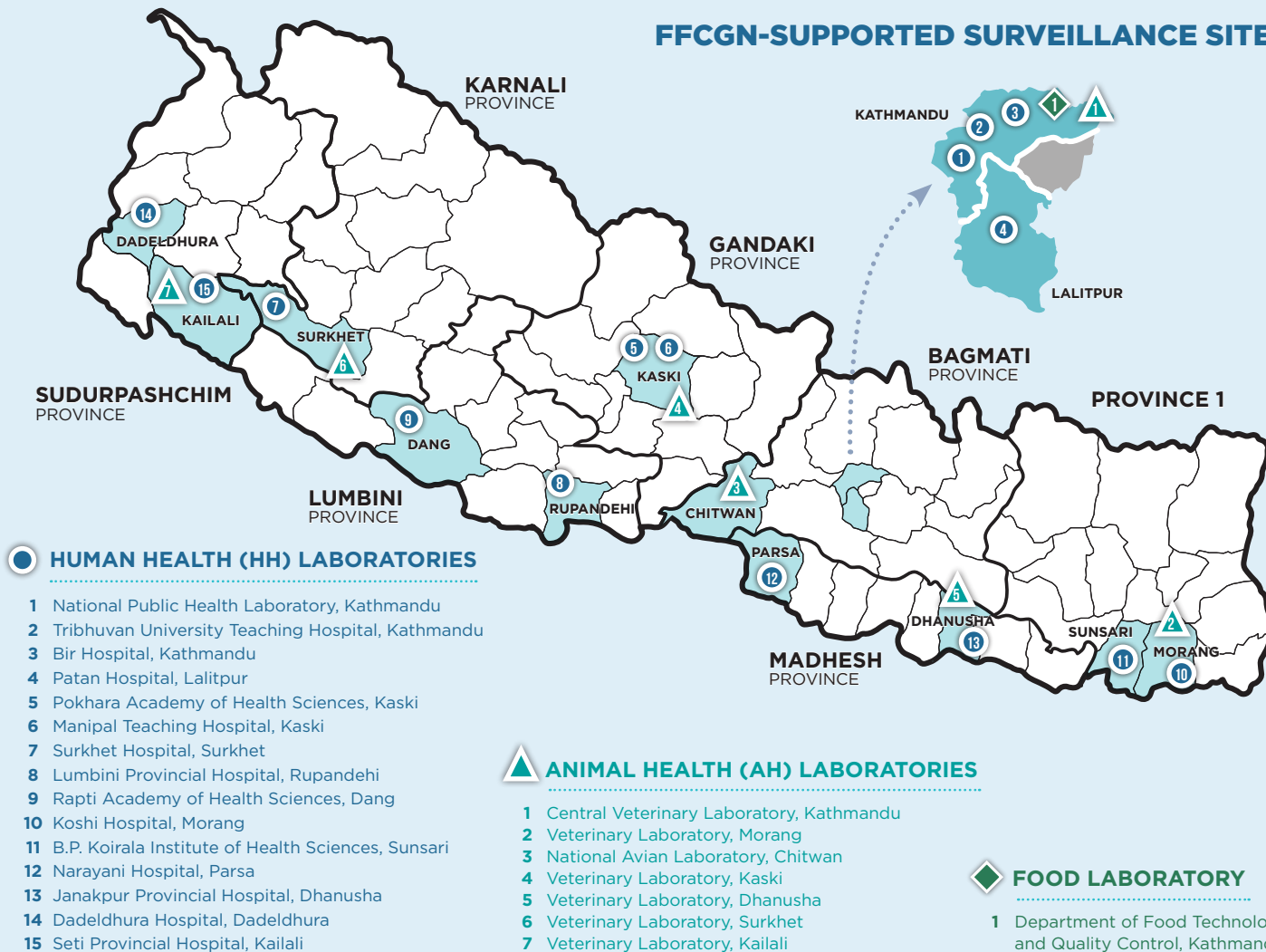
Duration:

8 Aug 2018 – 30 June 2023

Budget:

£3.35 million

FFCGN-SUPPORTED SURVEILLANCE SITES



ACTIVITIES



Promotion of One Health approach for AMR surveillance

- ✓ Memorandum of Understanding (MoU) signed between the Ministry of Health and Population (MoHP), Nepal and the UK DHSC for the Fleming Fund support on AMR.
- ✓ Functional AMRMSC and National Technical Working Committee (NTWC).
- ✓ Formed and operationalised six technical working groups (TWGs) in three sectors including human, animal and food sectors.
- ✓ Revision of the National Action Plan (NAP) on AMR in collaboration with the government and non-government stakeholders.
- ✓ AMR secretariat at the MoHP to support AMRMSC and NTWC.



Strengthening of bacteriology laboratories in human, animal and food sectors

- ✓ Microbiology laboratories upgraded to meet the Biosafety Level-2 (BSL-2) requirements through renovation, equipment support and accessories for biosafety and security.
- ✓ Microbiology services enhanced through equipment and consumables support, laboratories systems upgraded from manual to automated, and reference laboratories equipped with state-of-the-art technologies.
- ✓ Human capital generated through skill-based learning in four sectors: human, animal, food and environment.
- ✓ Reference laboratories supported to participate in External Quality Assessment Scheme (EQAS) and sentinel surveillance sites in National EQAS (NEQAS).

Promotion of good microbiology laboratory practices through technical assistance, alongside development and implementation of guiding documents (protocols, laboratory manuals, bench aids, posters and booklets) across all sectors



AMR surveillance data management at the National Coordination Center (NCC)

- ✓ Data generation and sharing across all three sectors streamlined with data-digitisation support; signing of MoUs between NCC and sentinel surveillance sites; use of national protocol and standard data sharing template.
- ✓ AMR surveillance data uptake and use at local, national and global levels.

Initiation of AMR surveillance in food sector by Department of Food Technology and Quality Control (DFTQC)



Upgradation and validation of the Post Marketing Surveillance software at the Department of Drug Administration (DDA) for AMC data management and reporting to Global Antimicrobial Resistance and Use Surveillance System (GLASS)



Generation of baseline data for AMU in human and animal health

- ✓ The MoHP launched the AMU surveillance in human health from a point prevalence survey (PPS) at four tertiary care hospitals in Province 1, Bagmati and Gandaki provinces.
- ✓ National AMU surveillance plan for animals developed.
- ✓ The Veterinary Standards and Drug Regulatory Laboratory (VSDRL) generated baseline data for AMU in poultry from a farm-based survey in broiler and layer populations in the Kathmandu valley. Nationwide farm-based survey for AMU in broilers ongoing.
- ✓ Antibiotic distribution pathway mapped for human and animal health sectors.



Technical assistance for AMR and AMU data sharing at global level

- ✓ The National Public Health Laboratory (NPHL) reported AMR surveillance data from 2018-2021 to GLASS; data was reported from one site in 2018, while in 2021 this increased to 17 sites (including all 15 FFCGN-supported sites).
- ✓ The VSDRL reported AMU data from 2018-2019 in Option 1 (baseline information and antimicrobial class) and upgraded reporting of 2020 data to Option 3 which also includes animal group data to World Organisation for Animal Health (WOAH) in 2021.



Initiation of active AMR surveillance in poultry at four veterinary laboratories led by Central Veterinary Laboratory (CVL)

Stakeholder engagement to ensure AMR data is being used for rational prescribing through activities targeted at improving the quality of interactions between the laboratory and clinicians



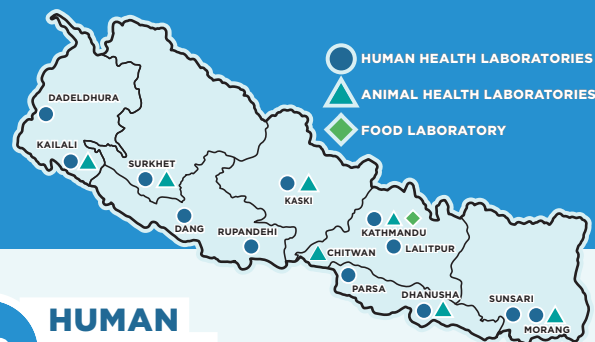
Development of human capacity for AMR/AMU/AMC surveillance

- ✓ Laboratory professionals upskilled for processing of samples and data management for AMR surveillance.
- ✓ Built capacity for conducting AMU surveillance at four tertiary care hospitals.
- ✓ Built capacity for conducting active AMR surveillance in poultry at four veterinary laboratories.
- ✓ DDA staff trained in managing AMC data for WHO GLASS-AMC reporting.



ACHIEVEMENTS

AUGUST 2018–SEPTEMBER 2022



FOUNDATION BUILDING

1ST AMR MSC meeting

6 TWGs formed



MoUs signed

for data sharing between NCC and 13 HH sites and CVL



HUMAN CAPITAL STRENGTHENING



699
males



713
females



SURVEILLANCE SYSTEMS DEVELOPMENT

23 laboratories strengthened

16 laboratories renovated

8 laboratories upgraded to BSL-2 (6HH, 2AH)

12 technical documents developed



More than 350

laboratory equipment provided

18 sites in three sectors provided with IT equipment

5 sites upgraded from manual to automated blood culture system

MALDIToF-MS* and **VITEK-2** installed at NPHL and CVL

* Matrix-Assisted Laser Desorption Ionization Time of Flight, Mass Spectrometry

23 sites' AMR data reported to GLASS

Launched **active AMR surveillance in poultry**

Launched **active and passive AMR surveillance in food sector**

Laid groundwork for **AMR surveillance in environment**

WOAH AMU reporting upgraded to **Option 3**

Software upgraded for AMC surveillance

Retrospective AMC data collection initiated



RATIONAL USE OF ANTIMICROBIALS

More than 25

events on strengthening laboratory clinic interface conducted

AMU survey in poultry farms completed at national level

AMU PPS at **4** hospitals in **3** provinces completed

National Antibiotic Treatment Guidelines under revision

Engagement with **professional medical associations**



DATA DISSEMINATION

AMR orientations conducted in **3** provinces

More than 5 dissemination events organised for AMR and AMU findings



NPHL **AMR newsletter** published

World Antimicrobial Awareness Week observed