MALARIA CONSORTIUM
PROJECT BRIEF

Community-led solutions to antimicrobial resistance

A One Health approach in Bangladesh and Nepal

Background

Antimicrobial resistance (AMR) is a major threat to global health, food security and socio-economic development. It is estimated to contribute to over 700,000 deaths globally each year, a figure that could rise to 10 million by 2050.[1]

Tackling AMR requires a 'One Health' approach, in which stakeholders from various sectors — including human and animal health, agriculture and environmental health — collaborate to ensure that antimicrobials are used appropriately. Joint efforts across sectors are crucial, given that many antimicrobials used to treat infectious diseases in humans and animals are similar, and that resistant bacteria may spread from one species to another.[2] In 2015, the tripartite collaboration between the World Health Organization, the Food and Agricultural Organization and the World Organization for Animal Health endorsed this approach.

In Bangladesh and Nepal, the overuse of antimicrobials and lack of understanding of the dangers of AMR are widespread.[3,4] It is, therefore, imperative not only to raise awareness, but also to engage communities to identify and implement sustainable community-led solutions.

Countries
Bangladesh

Nepal

Donor
UK Research and Innovation

Length of project
January 2021 – December 2023

Partners
ARK Foundation, Bangladesh

Chittagong Veterinary and Animal Sciences University

HERD International, Nepal

Institute of Infection and Global Health, University of Liverpool

Nuffield Centre for International Health and Development, and Centre for World Cinemas & Digital Cultures, University of Leeds

University of Western Australia

Project outline and objectives

To date, effective and sustainable community engagement (CE) interventions that address the contextual drivers of AMR through a One Health approach have not been evaluated and scaled up. To close this research gap and inform policy making, the project partners will implement and evaluate an innovative CE intervention in Bangladesh and Nepal.

This study builds on substantial preliminary work, including Malaria Consortium's pilot study on using the community dialogue approach (CDA)[5] to address antibiotic misuse within Bangladeshi communities and the health system; and a pilot project on the participatory video (PV) approach to identify community-led solutions to antibiotic misuse in (peri-)urban Nepal.[6]

Project partners will co-design a CE approach in line with national AMR action plans and implement it in 50 community clinic catchment areas in Bangladesh's Comilla district, which has a total population of approximately 300,000. To explore the approach's potential for replication, we will subsequently look to introduce it in rural communities in Nepal.

Specifically, the project aims to:

- implement and evaluate an approach to CE that tackles AMR at the community level
- assess the approach on its effectiveness in improving knowledge, attitudes and practices relating to the drivers of AMR; its cost-effectiveness and the cost of scale up; and the extent to which it is equitable, gender sensitive and participatory
- determine the approach's potential for national implementation in Bangladesh
- explore the potential for replication in new contexts.

Activities

To achieve these objectives, Malaria Consortium will:

- support collaboration between project partners, including local non-governmental organisations, academic institutions and government ministries with a remit for human and environmental health, agriculture, fisheries and livestock.
- co-develop contextualised intervention materials that address AMR through a One Health perspective based on:
  - films, produced using a PV approach, in which communities identify local barriers to AMR prevention
  - rapid ethnographic studies on communities' antimicrobial use and their beliefs relating to AMR
  - workshops with key stakeholders to ensure culturally appropriate materials that align with wider policy priorities
- lead on the CDA component and provide technical guidance to ARK Foundation, the national implementing partner in Bangladesh
- support partners in determining the potential to replicate the approach by introducing it in rural communities in Nepal after adapting the tools to the local context
- contribute to the evaluation of the intervention
- implement a research uptake strategy to include CE approaches in AMR measures, both in Bangladesh and Nepal.

References

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Contact: info@malariaconsortium.org

Cover image: A group of female community health volunteers in the Acute Respiratory Infection Diagnostic Aids (ARIDA) project, Nepal

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