

ADVANCING DIAGNOSTIC SOLUTIONS AGAINST ANTIMICROBIAL RESISTANCE (AMR)



AMR is one of the top 10 global health threats

– more people die from AMR-related complications than from HIV or malaria.



4.95

million deaths p.a. associated with **drug-resistant bacterial infections**

31%

of deaths in children under five caused by sepsis in 2021 associated with drug-resistant bacteria

10

million annual deaths expected due to AMR by 2025

5.5

million cases of AMR bloodstream infection and **2.8 million** cases of **AMR pneumonia** expected by 2040

25%

increase in **healthcare costs** predicted in low- and middle-income countries by 2050

3.8%

of global **gross domestic product** at risk each year, with **28 million** people facing poverty, in a high-AMR scenario

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In low- and middle-income countries, **prohibitive diagnostic costs, absence of point-of-care tests (PoCTs)** for many diseases, and **easy access to antimicrobials** through informal providers drive inappropriate usage, escalating the AMR crisis.

>>> FIND IS DRIVING PARTNERSHIPS TO REDUCE THE AMR BURDEN



Strengthen stewardship programmes to preserve new and existing antibiotics at primary healthcare centres:

- Rapid diagnostics for sexually transmitted infections
- Diagnostics and digital solutions to support clinical decisions



Implement climate-resilient affordable diagnostic solutions for severe infections at hospital level to reduce AMR deaths:

- Increased access to existing AMR tools
- Digital solutions to improve results interpretation



Support research and development (R&D) of rapid, accessible diagnostics for severe infections, to enable timely and appropriate intervention:

- Simplified and low-cost molecular system for quick detection of pathogens and resistance, helping clinicians prescribe the right antibiotic for each patient
- PoCTs for severe infections
- Companion diagnostics to ensure new antimicrobials are reserved for treating highly resistant infections



Strengthen AMR surveillance and antimicrobial stewardship in line with the One Health approach to improve the use of AMR data in clinical decision-making:

- Decentralized AMR surveillance
- Healthcare-associated infection surveillance and cumulative antibiograms
- AMR mutations catalogue development

Leveraging new and existing technologies, FIND is working on improving **testing and surveillance** so that antibiotic drugs continue to work for as long as possible and lives can be saved.

►►► OUR IMPACT IN NUMBERS

800,000+

AMR records analysed across 205 African labs to inform the development of policies to control AMR

22,000

patients enrolled in one of the largest multi-country AMR studies ever conducted on improving the use of PoCTs, resulting in reduced antibiotic prescription

400,000+

One Health AMR samples consolidated on a centralized surveillance platform in Nepal

8–10

culture and sensitivity tests requested per week from a baseline of zero in Kenya

>90%

clinicians reported **improved utilization** of microbiology lab services after an antimicrobial stewardship programme in Kenya

►►► SPOTLIGHT

Strengthening One Health AMR surveillance through digital tools

Fragmented data collection from surveillance sites and non-standardized reporting formats limit countries' ability to effectively monitor AMR trends, analyse resistance patterns, report to global systems, and respond to emerging threats efficiently. FIND is addressing these challenges in Nepal and Kenya by implementing integrated centralized digital platforms for processing data from human health and animal health sectors to ensure quality data at all levels of decision-making. By streamlining data sharing between human and veterinary labs, the project has improved data interoperability across sectors. We are also supporting the identification of priority pathogens and training master trainers and system champions to empower national teams to maintain and manage these systems independently.

Implementing a package of interventions to improve antibiotic prescriptions

In low-resource settings, healthcare providers tackle febrile illnesses without access to diagnostics to guide treatment, leading to routine but misguided antibiotic prescriptions. FIND has established the AMR Diagnostics Use Accelerator to address this critical gap by equipping providers with a targeted intervention package including PoCTs; diagnostic algorithms and aids; and training and communication. The project — implemented in Ghana, Uganda, Nepal, Burkina Faso, and India — is generating evidence on the impact of the provision of diagnostic tools, improving differential diagnosis, and encouraging behaviour change to ensure appropriate patient management. In Burkina Faso, the intervention reduced antibiotic prescriptions by 24.9%. In India, antibiotic prescriptions dropped by 3.9% for respiratory presentations.

►►► FIND CAN SUPPORT COUNTRIES IN IMPLEMENTING AMR ACTION PLANS AND CLOSING THE DIAGNOSTICS GAP

- 01** Supporting R&D for, and implementation of, **PoCTs**
- 02** Implementing innovative **cost-effective AMR packages**
- 03** Supporting the **development of digital tools** for decentralized AMR surveillance
- 04** Conducting **assessments & evaluations** to identify gaps and improve workflows
- 05** Supporting **decision-making** in antibiotic prescription
- 06** Assessing **market readiness** to help diagnostics reach those in need

As the burden of AMR continues to rise, **innovative diagnostics, responsible antibiotic stewardship, One Health AMR surveillance, and data-driven decision-making** will be critical to saving lives.



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