Independent summative evaluation of the Fleming Fund, 2017–26

Vol.II Annexes

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Annexes

Contents

List of tables

List of figures

List of boxes

1. Terms of Reference

The Phase 2 evaluation is part of an overarching contract between Department of Health and Social Care (DHSC) and Itad, signed in November 2016, for evaluation services in both Phase 1 and Phase 2 of the Fleming Fund. The Terms of Reference (ToR) for this contract clearly spelt out Phase 1 evaluation requirements but, necessarily at the time (2016), included less detail on what DHSC needed from the Phase 2 evaluation. This annex therefore summarises objectives from both ToRs.

Purpose and scope of the evaluation

Purpose

The evaluation is expected to fulfil two primary purposes: (1) accountability and (2) learning:

- Accountability objectives focus on whether the Fleming Fund has achieved expected progress and results by the end of 2025; expected progress is defined in relation to the Theory of Change, in the Business Case, in annual targets agreed with the Management Agent, and in proposals delivered by direct grantees. Accountability needs will be met through a summative evaluation report delivered in Q2 2026 which covers the scope and evaluation questions (EQs) below.
- Learning will be a key focus of the evaluation between Q2 2023 and Q1 2026 (prior to the start of data collection and analysis for the above summative report).

Scope

The evaluation will cover results at both country and global levels but with a primary focus on the contribution of all Phase 2 Fleming Fund grants (including those managed by the Management Agent (MA) and those managed directly by DHSC) to strengthen country-level generation and use of quality data on antimicrobial resistance, use and consumption (AMR/AMU/AMC).

The focus on global and regional-level results will be to document: (a) results in Phase 1 that took place after the Phase 1 summative evaluation data collection ended; (b) results under Phase 2 and the Fleming Fund's contribution to these.

The evaluation will also cover the sustainability of integration of AMR within the Global Burden of Disease (GBD), covering activities funded through the Wellcome Trust and/or the Bill and Melinda Gates Foundation (BMGF) under the umbrella of Global Research on Antimicrobial Resistance (GRAM) Phase 2. To the extent possible, the evaluation should cover use of the GBD AMR analysis within regional discourses in Asia, Africa and Latin America.

As in Phase 1, the evaluation will not assess performance within individual grants, nor will it evaluate the functioning of the Tripartite.

Deliverables

The evaluation will produce the following deliverables:

1. Inception report (October 2023) – to set out specific plans for how the above will be delivered and the proposed learning and communication plan.
2. A range of learning products reflecting the different objectives identified in the full ToR, including a mid-point deliverable focused on the strategic shifts (Q2 2024, TBD).

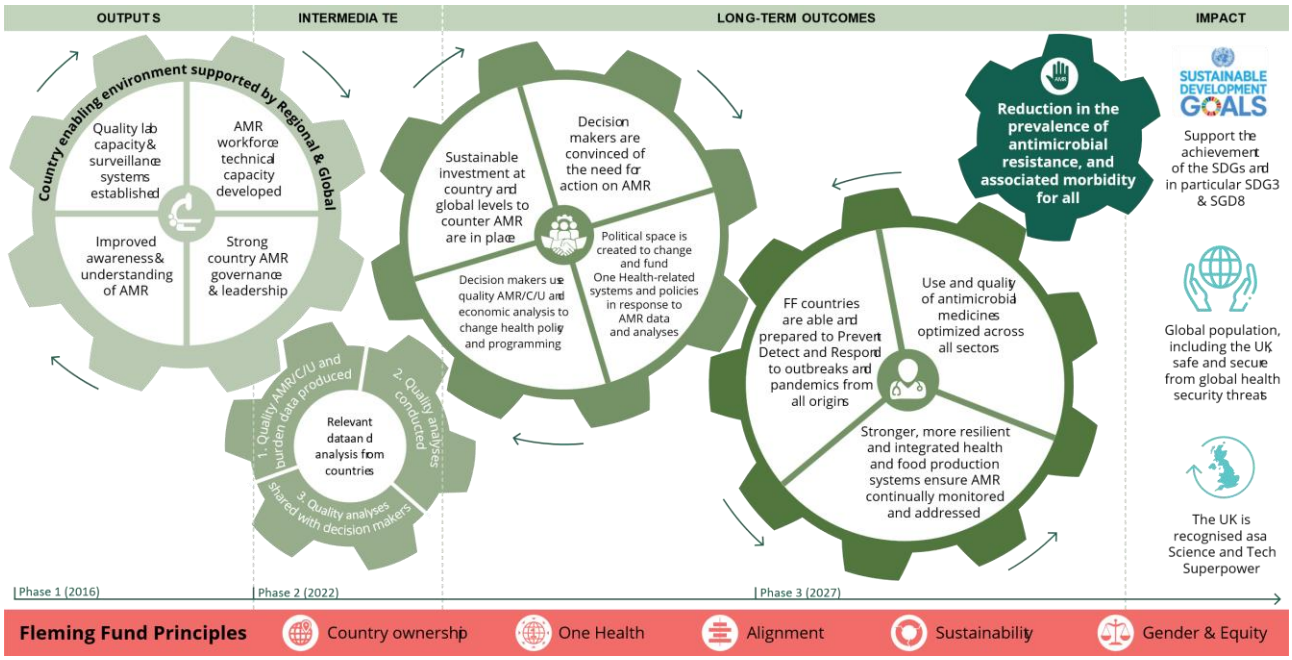
3. One summative deliverable at the end of the programme (March 2026) to answer agreed EQs.

2. Background: Fleming Fund design parameters

2.1 Theory of Change

Figure 1 presents the Fleming Fund portfolio Theory of Change (ToC), which sets out how investment in laboratory-centred AMR surveillance systems is expected to contribute to reduced AMR and associated morbidity over the long term. It describes a results chain moving from strengthened country enabling environments (governance, laboratories, workforce and awareness), through improved generation, analysis and sharing of AMR, AMU, AMC and burden data, to longer-term outcomes relating to data use, policy influence, sustainable financing and health system resilience, under a One Health (OH) framing. The ToC is underpinned by core principles of country ownership, alignment, sustainability, OH, and gender and equity, and makes explicit a series of critical assumptions, including the existence of demand for evidence, effective institutional routes from data to decision-making, political space for action, and the availability of resources and incentives to sustain surveillance functions over time. The full programme-level ToC narrative is available via The Global Health Network (TGHN).[1]

Figure 1: Fleming Fund ToC diagram (revised February 2024)



2.2 Programme architecture and delivery model

The Fleming Fund was implemented through a portfolio-based delivery model comprising multiple grant instruments operating at country, regional and global levels. The portfolio was funded through Official Development Assistance (ODA) and managed by the UK DHSC.

[1] https://tghn.org/

Information about the financial allocations to different grant types is included in Annex 4.6 on value for money (VfM).

A **Management Agent (MA)**, Mott Macdonald, was contracted by DHSC to design, procure and manage a substantial proportion of the grant portfolio as shown below. The MA was responsible for grant management, monitoring and reporting against agreed contractual requirements. DHSC retained overall stewardship responsibility, including approval of plans and design for all grants, and direct management of a set of DGs described below.

MA-managed grants

Country grants (CGs) were the primary delivery mechanism and were implemented in 22 low- and middle-income countries across Africa and Asia (see Annex 2.6 for full list). CGs focused on strengthening laboratory infrastructure, antimicrobial susceptibility testing (AST), surveillance data systems, workforce capacity, and national governance arrangements for AMR surveillance. Activities were designed to work through national systems and in alignment with national AMR strategies and action plans.

Regional grants (RGs) were introduced to provide multi-country technical assistance and shared functions that could not be delivered efficiently through individual CGs. These included regional approaches to laboratory quality assurance, analytical methods, data into use, clinical engagement, economic and burden-of-disease analysis, and OH coordination. Several RGs were commissioned in Phase 2 to support expanded programme priorities. 2 and the MA learning product on multi-country technical assistance[2] for more details on the composition and achievements of the RG portfolio.

Table 1: List of regional grants

Timing	Name	Overview
Regional Grants – Set I (Phase 1 and Phase 2)	CAPTURA	CAPTURA was designed to provide regional technical assistance in Asia to strengthen the analysis and use of existing AMR and AMU surveillance data. Its scope focused on collecting, harmonising and analysing retrospective data, and building national and regional analytical capacity to support evidence-informed policy and clinical decision-making.
	MAAP	MAAP was designed to strengthen AMR and AMC data analysis and use across Africa through African-led data aggregation, standardisation and analytical capacity building. Its scope included compiling large-scale laboratory and consumption datasets and supporting countries to translate surveillance data into regional and national evidence products.
	EQuAFRICA	EQuAFRICA was designed to establish and strengthen a regionally owned external quality assurance (EQA) system for AMR testing across Africa. Its scope focused on improving laboratory quality, supporting EQA provider capacity, and strengthening national laboratory quality frameworks aligned with international standards.

[2] https://www.flemingfund.org/publications/multi-country-technical-assistance-approach-for-strengthening-amr-surveillance-in-lmics/

	EQAsia	EQAsia was designed to strengthen external quality assurance systems and professional networks for AMR laboratories in Asia. Its scope focused on improving laboratory participation, communication and engagement in EQA schemes, and expanding regional laboratory networks.
	RADAAR	RADAAR was designed to strengthen the policy relevance and uptake of AMR surveillance data at regional and country levels. Its scope focused on identifying policy bottlenecks, developing advocacy guidance, and supporting regional and national actors to improve data analysis, sharing and use in policy processes.
	QWArS	QWArS was designed to strengthen the AMR surveillance workforce in Africa and Asia through training in epidemiology and laboratory microbiology. Its scope focused on developing accredited courses, training trainers, and embedding professional development pathways within national and regional institutions.
	SeqAfrica	SeqAfrica was designed to establish and support a regional whole-genome sequencing (WGS) network for AMR surveillance in Africa. Its scope focused on building and expanding WGS and bioinformatics capacity through regional centres and supporting wider country-level uptake.
Regional Grants – Set II (Phase 2 only)	Data & Evidence Use Africa	Designed to provide regional technical assistance to support the use of AMR surveillance data for policy, regulation and planning in Africa and Asia. The grants focus on strengthening data use for policy across OH sectors, including support for burden of disease measurement and development of an economic case for AMR investment, aligned with country investment strategies (CIS) and Phase 2 strategic shifts.
	Data & Evidence Use Asia	
	AMROH SA	Designed to support Phase 2 strategic shifts by strengthening OH integration of AMR surveillance across human and animal health (AH) systems in four regions. The grants focus on improving cross-sectoral coordination, data linkages and alignment with CIS.
	AMROH SEA	
	AMROH ESA	
	AMROH WA	
	Gender & Equity	Designed to mainstream gender and equity considerations across the Fleming Fund programme. The grant focuses on undertaking landscape analyses of gender and equity in AMR across OH sectors, and supporting country and RGs to integrate gender- and equity-responsive approaches into surveillance, capacity building, data use and policy engagement.
	Clinical Engagement Asia	Designed to provide technical assistance to strengthen clinical engagement in AMR surveillance and data use in Asia and Africa. The grants focus on improving use of laboratory services and AMR/AMU/AMC data in clinical practice, supporting diagnostic stewardship, antimicrobial stewardship (AMS), and stronger linkages between laboratories and clinicians, aligned with CIS.
	Clinical Engagement Africa	

Box 1: Regional grants (RGs) in the Fleming Fund portfolio

Regional grants (RGs) were a core part of the Fleming Fund portfolio and central to the Fund's response to the Phase 2 strategic shifts. They provided multi-country technical assistance to strengthen key functions for AMR surveillance – supporting the production, quality assurance, analysis and use of data – and to enhance the impact of Country and Fellowship Grants through regional initiatives, protocols and networks.

RGs played a structural, portfolio-level role by providing shared regional functions that could not be delivered through country grants alone. This helped accelerate progress and reduce delivery risk across a diverse set of country contexts, particularly where limited technical expertise, standardisation requirements, and sequencing constraints would otherwise have slowed implementation.

A core RG contribution was in improving the credibility and comparability of laboratory outputs through regional External Quality Assessment (EQA) and quality systems support, alongside complementary capacity building. RGs also strengthened analytical capability and practical tools to turn surveillance outputs into usable evidence, including regionally supported analysis and training and policy-facing approaches to address 'data-to-decision' bottlenecks.

Phase 2 RGs helped strengthen and emphasise existing elements of the Fund's Theory of Change, including One Health and multisector working, and to extend the portfolio into new domains of data use. AMROH reinforced animal health AMR surveillance capacity and multisector collaboration; TACE supported greater clinical engagement with surveillance systems; and TADEU strengthened the economic and burden-of-disease evidence base to inform prioritisation and investment discussions. Together, these grants broadened the scope of 'use' beyond surveillance production.

Overall, RGs primarily generated enabling effects – strengthening systems, capacities, coordination and regional public goods – rather than directly attributable policy or practice change. Where change did occur, it was closely linked to country-level governance and domestic financing, and the sustainability of regionally provided services remains a material risk.

Strategic Alignment Grants were used to support specific thematic or cross-cutting priorities aligned with the Fund's objectives, including activities designed to strengthen coherence across the portfolio.

The **Fleming Fellowship Scheme** supported individual professional development through fellowships, training placements and networking opportunities. The scheme aimed to strengthen technical capability and leadership across laboratory systems, surveillance, analysis and governance functions, and to foster professional networks within and across countries.

Table 2 below summarises the findings from a thematic case study we conducted on Fellowship schemes supported by the Fund, including:

- **Fleming Fellowships (professional and policy)**, the largest scheme, run by the MA, in collaboration with several Host Institutions, supporting the professional development of practitioners and policymakers to boost AMR workforce capacity in partner countries.
- A smaller Fellowship scheme known as Africa Leadership Fellowship – AMS (**ALF-A**) **Fellowships** and the subsequent **UK-ALF-A Fellowships**, under the Fleming Fund-supported

CwPAMS programme, strengthening the AMS and leadership skills of pharmacists in eight sub-Saharan African countries.

- The **placement of health economists** in relevant ministries (health, agriculture and environment) piloted **by ODI** during Phase 1.

These summary findings are organised against various elements of the Fund's ToC.

Table 2: Summary findings from thematic case study on the Fleming Fellowship Scheme

ToC element	Contributions to	Fellowship TCS findings
Outputs	1a. AMR workforce technical (individual) capacity developed	There is very good evidence of Fellowships' contribution to individual capacity development of participants. *See also 5b on professional development and networking*
	1b. Strong AMR governance and leadership	Fellows have actively contributed to AMR governance and leadership by participating in AMR Coordination Committees (AMRCCs) and shaping NAPs, leveraging their enhanced expertise from the Fellowship. Additionally, Fleming and ALF-A Fellows have played a key role in establishing or strengthening AMS committees at the facility level. *There is also evidence that Fellows' enhanced skills are enabling them to better support AMR response in their country as corroborated by their contribution to the changes below.*
	1c. Lab/ institutional capacity & surveillance system established	By design, the Fellowships have focused more on individual than on institutional capacity strengthening. There is good evidence, however, of Fellowships having contributed to institutional capacity strengthening and strengthening the surveillance system as a whole.
	1d. Improved awareness and understanding of AMR	We have found some contribution of Fellows to increased awareness of the challenge of AMR, the problems that it can cause and of some potential solutions, at various levels. There is evidence that Fellowships have raised awareness of Fellows themselves and of their institution. There is also evidence from the MA reporting as well as our own analysis that Fellows have used their enhanced skills/data to raise awareness of policymakers and other relevant actors, such as clinicians, farmers etc. across a broad range of countries. It is important to note, however, that these efforts were limited in scale (public awareness-raising in particular has not been a big focus area of the Fund as a whole). *Moreover, through their contribution to analysis generation and sharing (see 2.b on analysis generation and sharing) we can assume that Fellows have further contributed to improved awareness at various levels.*

Intermediate outcomes	2a. Changes in QUANT/QUAL of data generated	There is good evidence of strong contribution of Fellows (in particular professional and ALF-A Fellows) to the generation of more and better data.
	2b. Changes in QUANT/QUAL of analysis generated and shared with relevant committees, at facility level, with Ministry of Finance or internationally	We found good evidence of Fellows contributing to analysis generation and sharing this analysis with relevant committees and to some extent internationally, but less evidence of contribution to analysis sharing at facility level or with the Ministry of Finance (only two countries made provision for Economic Policy Fellows). The ODI Fellows pilot was unsuccessful, in part, because of this lack of enabling environment at the time of launching.
Long-term outcomes (not necessarily explicitly mentioned in the ToC but in line with our evaluation approach for EQ4)	2c. Changes in policy/regulations	There is some evidence that Fellows have contributed to policy/regulatory change. The most visible contribution case has been Bangladesh, where following recommendations from a Fellow study, a decision to re-label antibiotics and colour-code them was made. Moreover, again in Bangladesh, a Policy Fellow was able to ban colistin in veterinary use. Fellows have also plausibly contributed to veterinary regulations in multiple countries.
	2d. Changes in practice	As highlighted in our Progress Report, Fellows are making some contributions to facility-level practice and attitudes. Fellows play local leadership roles in their respective organisations, not only promoting practice and attitude improvement but also often positively modelling relevant behaviours. Most of the examples relate to AMS in both human health (HH) and AH sectors.
	2e. Changes in funding decisions/ resources to tackle AMR	In general, we do not have many examples of changes in funding decisions, let alone the role of Fellows in bringing them about. We have nonetheless found some examples of Fellows' contribution to costing of AMR NAPs.
Gender & Equity (G&E) principle	3a. G&E in terms of participation to scheme	In Phase 1, the MA reported challenges to achieving balance when the pool of Fellows to choose from is limited/heavily skewed towards one gender. Female-to-male ratio, however, improved in Phase 2 compared to Phase 1 to almost equal, on average. While the MA reports an intention to strive for gender balance, they also admit that they were not 'too heavy handed' about it. The selection was based on merit/fit. In terms of efforts to help all genders reconcile work, life and Fellowship responsibilities, while the MA was open to considering additional support on an ad hoc basis, they also reported that they are leaving this aspect to the policies of the individual HIs and were guided by the staff policies of Beneficiary Institutions (BIs) – i.e. most often the organisation or institution where the Fellow works.
	3b. G&E as a topic	Gender & Equity was not a training topic in Phase 1. From Phase 2, a competency assessment in G&E has been introduced in the Policy Fellowships, as well as a mandatory course on OH plus G&E for all Fellows (with a more complete course later designed by the Open University & GEAR-UP). A few collaborative projects in Phase 2 have adopted a specific gendered lens.

Sustainability principle	4a. Positive contribution to sustainability	Fellowships have contributed to sustainability in multiple ways. As mentioned above: • Individual capacity (and motivation) has increased – see 1a • Fellows contributed to tools, standard operating procedures (SOPs), guidelines and research that are still being used – see 1b • Fellows contributed to institutional capacity by training others (in their institutions and beyond) – see 1c • Some alumni are becoming mentors or co-mentors of other Fellows • Champions have been created at different levels who can act as 'policy entrepreneurs' • Fellows have contributed to awareness-raising and budgeting work – see 1d and 2e • One Health/multisectoral/global networks have been created – see 5a.
	4b. Risks to sustainability	The Fellowship programme as such ended in March 2026. The Fleming Initiative announced that they will pick up some aspects, such as continuing to publish the Petri Dish Newsletter and providing some small funding to Fleming alumni for conference attendance and to publish their work. The main risks to sustainability of Fellowship results are: • Limited budget for an alumni scheme (during Phase 2) – mainly devoted to helping with publication of their Phase 1 work and conference attendance rather than funds to support a specific scheme/network • Turnover/reassignment of Fellows • Disconnect between BI and HIs • Disconnect between Fellowships and other grants • Relatively small number of local mentors/co-mentors • Challenges with sustainability of other areas of support which can have an impact on Fellows' ability to exercise their strengthened capabilities.
One Health principle	5a. OH/ multisectoral collaboration/ global networks	Fellows have forged strong (formal and informal) networks between themselves (across cohorts and sectors) in their respective countries and sometimes internationally. They have contributed to increased collaboration and understanding across sectors. Fellows particularly appreciated the opportunity to interact with renowned experts and to participate in global networks.

Not part of the ToC	5b. Career development/ professional networking/ Fellowship experience	Fellows generally appreciated career development and professional networking opportunities. Most Fellows struggled, however, with juggling work and Fellowship responsibilities, especially in the context of timelines that were shorter than originally expected. Moreover, a handful of Fellows interviewed voiced that they would have preferred the Fellowship to give out official certifications, to have more control over the choice of courses offered as part of the Fellowship or opportunities provided: e.g. opportunities to participate to international conferences, present at webinars or be published on Petri Dish could have been more regularly/proactively shared with Fellows.

DHSC managed grants

Direct grants (DGs) were commissioned and managed directly by DHSC where delivery required global or regional scale, specialist mandates, or institutional arrangements not suited to competitive country-level procurement. These grants supported multilateral organisations, global surveillance platforms, analytical initiatives, professional networks, and normative frameworks relevant to AMR surveillance and data use. Table 3 provides a list of DGs and Table 4 more details on their achievements.

Table 3: Summary of direct grants objectives and geographic scope

Grantee	Objective	Amount	Focus countries
WHO	Support countries to accelerate and sustain implementation and monitoring of evidence-based NAPs on AMR; optimise use of AMS and diagnostics in HH; enhance generation/use of data for policy, legislation, programmes.	£29.2 million	6–7 countries to be identified
FAO	Increase/improve data generation, analysis, sharing and utilisation for evidence-based decision-making in the food and agriculture sector.	£19.6 million	12 focus countries
WOAH	Support Fleming Fund countries to develop and use surveillance tools, protocols and data; collate and report national data on antimicrobials use in animals, and on the economic and business cases for investment in AMR.	£16 million	TBC
WHO-SF	Generate evidence of links between SF medicines and AMR. Leverage data for policy, legislation, governance and programmes.	£8.9 million	Pilots: Tanzania and Indonesia
South Centre	Increase understanding of importance of cross-sectoral AMR surveillance and use of data for evidence-based action.	£2.5 million	Global, regional, country
CwPAMS	LMICs/regions have improved structures, knowledge and practice related to AMS and infection prevention and control (IPC), in line with NAPs.	£8.5 million	8 countries
FAO Reference Centre	Build in-country personnel capacity through research collaboration	£4.1 million	6 countries

Grantee	Objective	Amount	Focus countries
MPTF – ongoing fund	Strengthen country capacity/knowledge to prioritise/implement context-specific collaborative OH approaches to control AMR. Global/regional initiatives/governance influence and support OH responses to AMR.	£9.8 million	TBC
GRAM	Produce country-level estimates of the prevalence of resistance for selected pathogen-antibacterial drug combinations from 1990 to present. Produce estimates of the burden of AMR by age, sex and location from 1990 to present Integrate the burden of AMR estimation into the overarching GBD enterprise. Improve capacity in priority LMICs to prepare and analyse AMR data. Promote the widespread dissemination of the results. See Box 3 for details.	£12.3 million	3 LMICs for capacity building. 10 countries in each WHO region for dissemination

The Phase 2 Business Case set out an ambitious agenda for the Direct Grant portfolio, emphasising not only the generation of robust AMR, AMC and AMU data, but also its increased use to inform policy, investment decisions and system change across a OH framework. In line with this, expectations for several DGs implicitly combined delivery of global and regional public goods with contributions to national-level uptake, behaviour change and reform. In practice, delivery most consistently aligned with those elements of the Business Case that reflected direct grantees' comparative advantages – namely the development of global norms, tools, surveillance platforms, analytic evidence and regional coordination mechanisms. Progress against expectations related to country-level policy change, implementation of National Action Plans, or behavioural change was necessarily more indirect and uneven, reflecting dependencies that were explicitly recognised in the Business Case itself, including country ownership, political commitment, absorptive capacity and parallel financing. Overall, the portfolio's achievements are best interpreted as fulfilling the system-enabling and foundational intent of the Business Case, while illustrating the limits of what could realistically be operationalised through DGs[3] within the Phase 2 timeframe and resources.

Table 4: Direct grants in the Fleming Fund Portfolio

Direct Grant	Original expectations (Phase 2 Business Case – Sections 6.2 / 6.3)	Expectation (as operationalised in grant design)	Evidence from delivery/reporting	Assessment
WHO	Support LMICs to *generate, share and use robust AMR, AMC and AMU data*; strengthen use of data, including costing and implementation of NAPs; provide	Accelerate and sustain AMR surveillance and data use through GLASS; strengthen stewardship, diagnostics and policy uptake primarily via	Strong delivery of global public goods (GLASS expansion, norms, AWaRe, diagnostics and stewardship guidance). Country-level influence evident but largely indirect and	Partially met. Global and normative expectations met; ambition around accelerating country-level use of data for policy exceeded what could realistically

[3] We note that, in addition to these grants, the Fleming Fund funded secondments of UK staff to FAO and WOAH to support the AMR agenda. These were not considered separately in our evaluation data collection but are reflected in financial allocations presented in Annex 4.6.

	global tools, norms and surveillance systems (GLASS); support OH collaboration through Tripartite role.	normative guidance and global platforms.	mediated via national uptake.	be delivered via a DG.
WOAH	Strengthen AH AMR/AMU surveillance and regional systems; embed AMR within PVS Pathway; scale Animal Antimicrobial Use Surveillance (ANIMUSE); address AMR in aquaculture and SF veterinary medicines; contribute to OH coordination.	Build sustainable AH surveillance systems and regional public goods aligned to World Organisation for Animal Health (WOAH) mandate.	Clear expansion and institutionalisation of ANIMUSE; AMR embedded in PVS; regional AMR officer model effective; tangible progress on aquaculture and SF medicines.	Largely met/ exceeded. Delivery closely matches Business Case expectations and institutional remit.
FAO	Strengthen AMR surveillance and governance across food, agriculture and environment; operationalise InFARM; expand Farmer Field Schools; strengthen SF medicines evidence; contribute to One Health National Action Plans (NAPs) implementation and economic case.	Deliver systems, tools and country support to enable AMR data generation and use across food and agriculture sectors.	Strong delivery of frameworks, tools and assessments (FAO-ATLASS, surveillance guidance, governance analysis). Slower and uneven roll-out of InFARM/Farmer Field Schools; SF and economic strands largely piloted.	Partially met. Foundational systems delivered; scale and pace implied in Business Case not fully realised.
CwPAMS	Build AMR workforce capacity through stewardship partnerships; strengthen institutional practice; embed stewardship within national systems; support	Improve (AMS) through health partnerships, training and institutional embedding rather than national roll-out.	Strong evidence of training, stewardship practices, guideline development and behaviour change at facility level; variable national uptake.	Largely met. Expectations were realistic and largely achieved at institutional level.

	sustainability and policy influence through partnerships.			
South Centre	Mobilise consensus on AMR; strengthen LMIC policy voice; support advocacy, South-South cooperation and engagement in global AMR governance processes.	Influence policy dialogue and global governance rather than deliver operational change.	Delivery aligned with advocacy, convening and policy engagement remit; outcomes intentionally indirect.	Met. Expectations modest, realistic and achieved.
GRAM	Improve global understanding of AMR burden; integrate AMR into GBD evidence; address data gaps; enable LMIC use of burden data for policy and advocacy.	Produce and institutionalise global AMR burden estimates as a global public good.	Strong delivery of global AMR burden estimates; increased visibility and policy relevance; limited but appropriate focus on country-level uptake.	Met. Fully aligned with Business Case expectations.
FAO reference centre	Establish a global AMR reference capability providing specialist expertise, collaborative research, and tools, protocols and training to strengthen surveillance and data quality across animal health, food and environment sectors.	Deliver targeted technical support and global/regional public goods—through collaborative projects, lab strengthening, proficiency testing, and training—focused on improving data quality, laboratory capacity and applied use of AMR evidence.	Extensive delivery across domains: collaborative surveillance and research generating AMR data and publications; sustained lab support (proficiency testing, standards such as ECOFFs, tailored technical assistance); and workforce development through training, exchanges and postgraduate programmes. Outputs combine global public goods with country-facing support. Translation into sustained national systems is uneven and contingent on capacity, infrastructure and enabling conditions.	Partially met (upper end). Strong delivery of technical outputs, data generation and capacity strengthening, aligned with the reference centre role. Effective in improving data quality and technical systems, but consistent scale-up and sustained country-level adoption remain constrained by dependence on national systems and wider enabling conditions.

Box 2: Summary achievements of direct grants

Direct Grants: strengthening the global enabling environment for action on AMR

Direct Grants (DGs) have been a core instrument across both Phase 1 and Phase 2 of the Fleming Fund, complementing country and regional grants. They were used where delivery required global or regional scale, specialist mandates, analytic capability, or peer-to-peer institutional models, rather than competitive country-level implementation. As a result, the DG portfolio is deliberately heterogeneous, spanning UN agencies, analytic grants, workforce and partnership models, and policy-focused organisations.

Across both phases, DGs were intended to strengthen the global enabling environment for action on AMR. In this portfolio, this is understood as: the availability of credible and comparable AMR data and burden estimates; shared platforms, standards and tools to generate, analyse and exchange that data; institutional and professional capacity to interpret and use evidence; and political visibility, coordination and legitimacy for AMR as a policy issue. DG performance is therefore best assessed against these enabling functions, rather than against uniform national delivery outcomes.

A major cross-cutting contribution of several DGs was strengthening the global AMR data ecosystem through the development and institutionalisation of shared surveillance and data-sharing platforms, including GLASS, ANIMUSE and InFARM. These platforms function as global public goods, supporting comparability, interoperability and sustainability, and underpinning both global analysis and national surveillance efforts. In parallel, DGs contributed to the normative environment for AMR action by shaping standards, guidance and analytic approaches, including how AMR is measured, framed and prioritised globally.

DGs also supported greater coherence across sectors, particularly between human and animal health, through institutional coordination, shared standards and cross-sector evidence, while environmental dimensions remain less mature. Beyond data and norms, DGs contributed to the professional, institutional and political conditions for data use, including stewardship practice, policy dialogue, advocacy and LMIC voice in global AMR fora. Taken together, Direct Grants made their strongest contribution by strengthening the global enabling environment for AMR through public goods, standards and coordination, complemented by more direct institutional and professional practice change in targeted areas, with wider national outcomes remaining contingent on country uptake and financing.

Box 3: Summary overview of the Global Burden of Disease AMR (GRAM) project

The Global Burden of Disease AMR (GRAM) project was delivered through a partnership between the University of Oxford and the Institute for Health Metrics and Evaluation (IHME), funded jointly by DHSC, the Bill & Melinda Gates Foundation and Wellcome.

AMR has long been recognised, but contemporary data on its distribution and prevalence were limited, constraining action; GRAM addressed this by assembling global data on 17 priority bacteria–drug combinations, developing burden-estimation methods, and disseminating results via the MICROBE interface and country policy briefs (including comparisons with other causes of death).

Implementers were accountable for data collection and credible analysis (not uptake). First results (*The Lancet*, 2022) estimated there were 4.95 million deaths associated with bacterial AMR and 1.27 million attributable deaths in 2019, and highlighted major LMIC data gaps – supporting expansion of laboratory capacity and data systems.

Phase 2 estimated deaths and DALYs (attributable to/associated with bacterial AMR) for 22 pathogens, 84 pathogen–drug combinations and 11 syndromes across 204 countries/territories (1990–2021), but did not publish sex-disaggregated burden estimates due to data sparsity.

The evaluation found some reach to 'conduit audiences' (e.g., AMR TWG members), mainly via WHO/South Centre/*The Lancet* newsletters, and that GRAM helped quantify a previously 'faceless' issue, reinforcing urgency (beyond O'Neill report framing). Uptake by country policymakers remains limited (low trust where data are sparse, methodological questions, underuse of Fleming Fund/other dissemination networks). AMR estimation is being integrated into GBD (not fully evaluated – originally EQ7 – due to evaluation budget reductions), and the evaluation noted a missed opportunity to feed Fleming Fund–supported data into GRAM/GBD because countries were not asked/encouraged to share microbiology and other required model inputs with IHME (resistance is only one input).

These estimates informed the 2024 UNGA High-Level Meeting on AMR, which adopted quantified targets including: 10% reduction in AMR-associated human deaths by 2030; ≥60% of countries with funded national AMR action plans by 2030; and commitments on antibiotic access, surveillance and IPC capacity – explicitly referencing the 4.95 million annual AMR-associated deaths estimate from IHME analyses published in *The Lancet*.

2.3 Governance and oversight arrangements

The Fleming Fund was commissioned and overseen by the UK DHSC, operating within domestic public-sector governance, financial management and assurance systems that were not originally designed for managing large, multi-country international aid portfolios. As a consequence, programme management was subject to strict year-by-year budgeting (annuality), limited flexibility to reprofile unspent funds across financial years, and extensive assurance and compliance requirements applied to ODA.

These requirements included multilayered approval processes, detailed due-diligence and audit expectations for downstream partners, and tight controls on grant variation and reprogramming. While these arrangements supported strong fiduciary control and risk management across a large and geographically dispersed portfolio, they also increased transaction volumes and administrative effort, particularly in contexts where implementation timelines shifted or country readiness varied.

In combination with highly variable country readiness and external shocks (including COVID-19 and supply-chain disruption), these system-level constraints reduced flexibility to pause, re-sequence or absorb delays without incurring additional coordination and grant-management costs. The resulting overheads therefore reflect structural and institutional conditions shaping programme delivery rather than weaknesses in grant-level performance or management practice.

Key informants further noted that these constraints were already apparent at the design stage of the Fleming Fund and were compounded during much of the programme period by wider cross-Whitehall dynamics in the management of ODA. These included repeated Spending Reviews, uncertainty over future ODA envelopes, and ongoing cross-government negotiations over ODA allocations. As one of the first large-scale and most high-profile ODA programmes commissioned and overseen by DHSC, the Fleming Fund was widely viewed as a test case for the department's role as an ODA delivery partner. This heightened the emphasis placed on fiduciary assurance, compliance and demonstrable VfM, particularly in the early years of implementation. Together, these dynamics limited forward visibility over budgets and timelines and contributed to repeated cycles of replanning and approval that affected the Fleming Fund alongside other cross-government ODA programmes (see ICAI, 2025, for a factual overview of cross-government ODA allocation and management during this period).

Governance of the Fleming Fund was overseen through DHSC-led mechanisms intended to provide strategic direction, technical input and fiduciary assurance. These arrangements included programme boards and advisory structures supported by DHSC's internal approval, assurance and reporting processes.

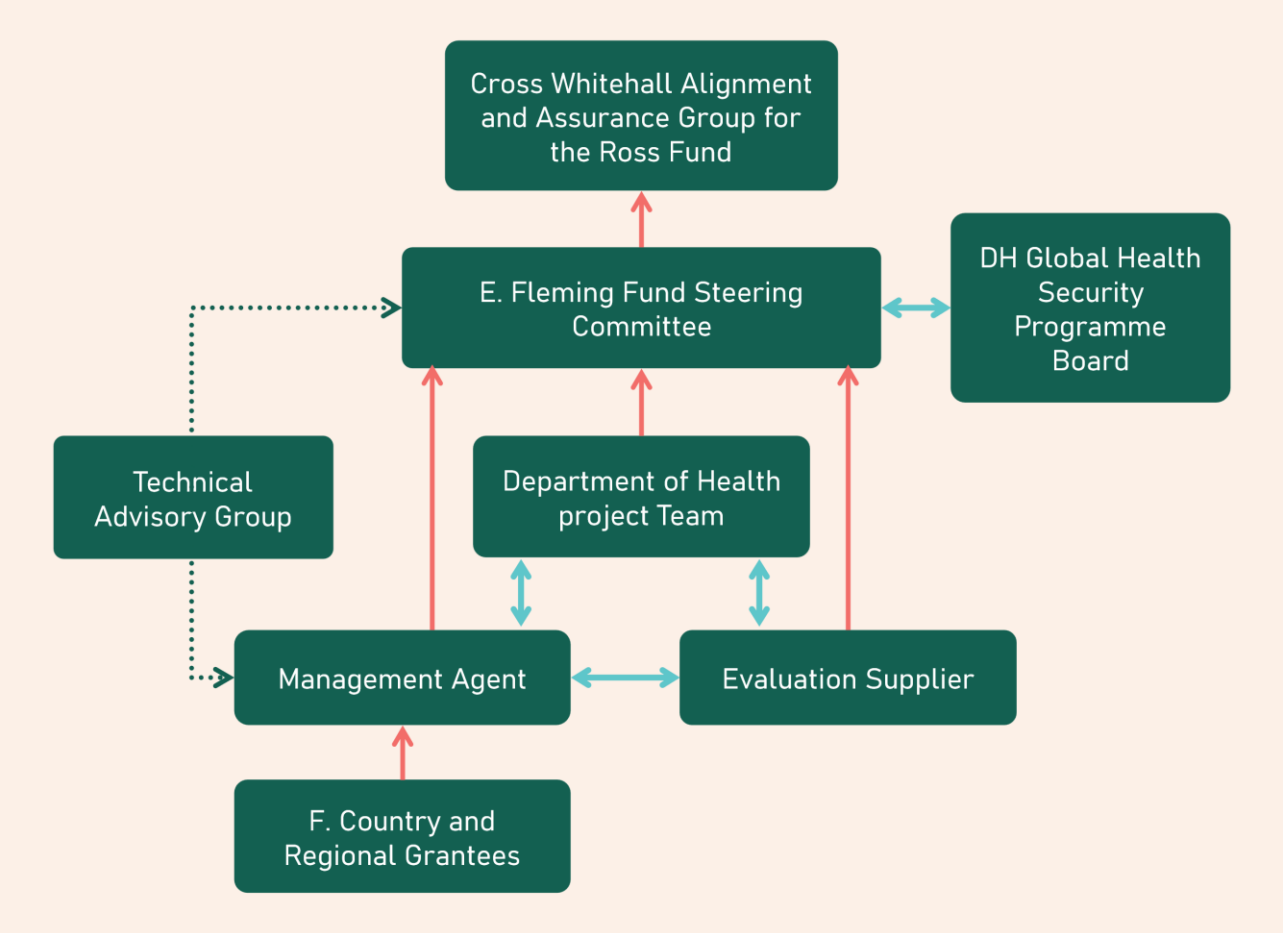
Figure 2 depicts intended structures, but these did not always operate as planned - for example, the MA had no connection with the Steering Committee and only informal connections with TAG; Itad also had no interaction with the Steering Committee.

The governance framework was designed to oversee a large and technically complex portfolio, balancing accountability for public funds with delivery across multiple countries, sectors and implementing partners. Technical advice was provided through specialist advisory mechanisms, while operational oversight focused on grant performance, risk management and compliance with contractual requirements.

The MA operated within this governance framework, reporting to DHSC on delivery progress, financing and expenditure, risks and results for the grants under its management. Direct Grant recipients reported directly to DHSC under separate contractual arrangements.

Governance arrangements evolved over time in response to changes in programme scope, delivery priorities and external conditions, including the expansion of Phase 2 priorities and the impact of COVID-19 and subsequent replanning cycles.

Figure 2: Fleming Fund governance arrangements within DHSC



2.4 Design evolution and Phase 2 strategic shifts

The Fleming Fund was implemented in two phases, with an evolution in scope and emphasis over time.

Phase 1 (2018–23) focused primarily on strengthening laboratory infrastructure, AST capability, surveillance data generation and foundational governance arrangements. Human health (HH) surveillance was prioritised, with animal health (AH) surveillance implemented largely through active sampling approaches. Early activities emphasised establishing functional laboratory systems and basic surveillance capacity.

Phase 2 (2022–26) introduced a set of strategic priorities (referred to as strategic shifts) intended to build on Phase 1 foundations and expand the scope of the programme. These included:

- data use and clinical engagement;
- the economic case for AMR investment;
- AH; and
- OH, including the environment.

Gender & equity (G&E) was added as a new underpinning principle for the Fund. Phase 2 also included expanded support for AMU and AMC data, and development of burden-of-disease and economic analysis.

These priorities were implemented primarily through new RGs and adjustments to existing grant portfolios. Implementation occurred over a relatively short period following delays associated with programme transitions, replanning and external disruptions.

Stakeholder views differed on whether the Phase 2 priorities represented a substantive shift in direction or a consolidation and extension of existing activities.

2.5 One Health framing and sectoral scope

The Fleming Fund adopted a OH framing, recognising that AMR emerges from and affects human, animal and environmental systems and requires coordinated, multisectoral responses. This framing reflected the prevailing understanding at the time of programme inception regarding zoonotic transmission risks and the contribution of animal surveillance to public-health protection. See Box 4 for more details.

Box 4: Defining One Health

The original Theory of Change reflected contemporary understanding of zoonotic AMR transmission risks and prioritised animal surveillance for public-health protection within a One Health framework. Evidence and learning that emerged during implementation contributed to subsequent broadening of animal health, stewardship and sector-specific surveillance objectives in Phase 2.

Fleming Fund recognised that a OH approach was needed due to multiple sectors contributing to and being affected by AMR. The initial design focused on the establishment of multisectoral governance structures, alongside largely hospital-based surveillance in HH and active on-farm surveillance in AH, producing comparable AMR surveillance data from both to enable multisectoral discussions. Surveillance within the food and environmental sectors gained attention later.

The initial design choice primarily focused on shared public-health objectives rather than sector-specific outcomes. As a result, early activities emphasised cross-sector transmission risk, with more limited attention paid to the distinct data needs of non-human sectors for addressing drivers of AMU and resistance within their own systems. In recognition that sectoral differentiation of approach was needed to account for differences in capabilities, capacities, resourcing, drivers, motivators and incentives, greater emphasis was placed on AH, the environment and OH in Phase 2 via RGs, through which approaches with greater prospects for sustainability were identified.

The establishment of formal multisectoral governance structures alongside informal structures and networks relied on communication, collaboration, coordination and capacity building (in line with the OHHLEP definition) and highlighted that a flexible, context-appropriate approach is needed to implement a OH programme.

However, the One Health concept was not always consistently interpreted in practice, and at times was used to refer primarily to non-human health activities, to integrated surveillance alone, or to programme outcomes rather than as a guiding design lens. This reflects broader challenges in operationalising One Health approaches, rather than a failure of the concept itself.

In practice, implementation varied across sectors and countries. Greater investment and programme activity was concentrated in HH laboratories and surveillance systems. AH

surveillance initially emphasised active on-farm sampling of pathogens of public health concern, aligned with antimicrobials classified as critically important for human medicine. Environmental surveillance and food safety received greater attention later in the programme period (during Phase 2).

Sectoral differences in system maturity, institutional mandates, resourcing and incentives shaped how surveillance activities could be implemented and used. Multisectoral governance arrangements were established or strengthened in many countries, providing forums for coordination and information sharing. Integration of surveillance data across sectors and translation into joint decision-making varied by context.

2.6 Country selection and baseline variation

The Fleming Fund primarily operated in 22 low- and middle-income countries across Africa and Asia (Table 5), although in practice more countries received Fleming Fund support, for example through the MA-managed Regional- and Strategic Alignment Grants and through DGs, including in the Caribbean (which this evaluation has not covered so are not included below). Country selection was informed by ODA eligibility, assessed need for AMR surveillance strengthening with a focus on addressing inequities in data and capability for AMR surveillance, and existing UK engagement.

Multiple grants provided support to each country (between 5 and 18, as shown in Table 5), with grantees managed by either the MA team at the global level, by MA regional teams, or directly by DHSC. This created coordination challenges, as discussed in Annex 4.2, and efficiency constraints, discussed in Annex 4.6.

Table 5: Fleming Fund grants and country coverage

Grant	Country Grants	Host Institutions		Regional Grants – Set I						Regional Grants – Set II							Strategic Alignment Grants (SAGs)							Direct Grants							
	Country grants	Fleming Fellowships	CAPTURA	MAAP	EQuAFRICA	EQASIA	RADAAR	QWArS	SeqAfrica	Data & Evidence	Data & Evidence	AMROH SA	AMROH SEA	AMROH ESA	AMROH WA	Gender & Equity	Clinical Engagement	Clinical Engagement	SPARC	WHONET	FIND	Open University	WHO	FAO Ref Centre	WOAH	South Centre	CwPAMS	FAO	GRAM	MPTF	TOTAL
South East Asia																															
Timor-Leste	X	X	X			X	X				X		X			X	X		X	X			X								12
Pakistan	X	X	X			X					X	X				X	X			X											9
Laos	X	X	X			X	X	X			X		X			X	X			X			X					X			13
Cambodia	X		X			X		X												X										x	6
PNG	X	X	X			X					X		X			X	X			X			X								10
Vietnam	X		X			X					X		X			X	X			X								X			10
South Asia																															
Nepal	X	X	X			X					X	X				X	X		X	X	X		X								12
Bhutan	X	X	X			X	X				X	X				X	X		X	X											11
Sri Lanka	X	X	X			X										X	X			X											7
Indonesia	X	X	X			X					X		X			X	X			X	X									x	11
Bangladesh	X	X	X			X		X			X	X				X	X		X	X				X						x	14
East & Southern Africa																															
Uganda	X	X		X	X			X	X	X				X		X		X	X	X							X				13
Tanzania	X	X		X	X			X	X	X				X		X		X	X	X			X				X	X			15
Kenya	X	X		X	X		X	X	X	X				X		X		X	X	X	X						X	X		x	18
Zambia	X	X		X	X			X		X				X		X		X	X	X	X		X				X				14
Malawi	X	X		X	X			X		X				X		X		X	X	X							X				12
Eswatini	X	X		X	X			X	X	X				X		X		X		X											11
Rwanda	X																			X											2
Zimbabwe	X	X		X	X			X		X				X		X		X	X	X			X							x	13
West Africa																															
Ghana	X	X		X	X		X	X	X	X					X	X		X	X	X				X			X	X		x	17
Nigeria	X	X		X	X			X	X	X					X	X		X	X	X				X			X				14
Sierra Leone	X	X		X	X			X	X	X					X	X		X	X	X							X				13
Cameroon	X			X	X			X												X											5
Senegal	X	X		X	X			X	X	X					X	X		X		X										x	13

Not Fleming Fund focus countries[4]																															
Ethiopia				X	X			X																				X		x	5
Gabon				X	X			X																							3
Philippines																									X				X			2
Sudan																													X			1
Madagascar																															x	1
Mongolia																															x	1
Morocco																															x	1
Peru																															x	1
Tajikistan																															x	1
Tunisia																															x	1
Regional																										X						1
Global																											X			X		2
TOTAL	24	20	11	14	14	11	5	17	8	11	9	4	5	7	4	21	10	11	13	24	4	0	7	4	1	1	8	8	1	14		

[4] Note that this table does not include Fund support provided to countries in the Caribbean.

Baseline capacity varied widely across countries and sectors (see Table 6). Some countries had established laboratory infrastructure and surveillance activity prior to the Fund, while others had limited or fragmented systems. Differences were observed in laboratory coverage, workforce capacity, governance arrangements, financing and political prioritisation of AMR. See Phase 1 summative evaluation report.[5]

Countries were categorised internally according to initial system maturity to inform planning and expectations. Country-level allocations were modest[6] relative to overall ambition (see Figure 54, Annex 4.6.3), particularly in Phase 1, and baseline variation influenced implementation trajectories and the pace at which results emerged.

Table 6 shows the MA's categorisation of countries using A–D categories[7] to assess the strength of AMR surveillance systems at the start of Phase 1 and the start Phase 2. This reflects the MA assessment that surveillance systems had strengthened from Phase 1 – e.g. fewer countries systems in category B at the start of Phase 2 (n = 2) compared to the start of Phase 2 (n=2).

Table 6: Strength of focus countries surveillance systems (start Phase 1 and start Phase 2)

Country	A–D category (start Ph1)	A–D category (start Ph2)
Timor-Leste	B	C
Pakistan	B	D
Laos	B	C
Cambodia	Not a Phase 1 country	Not assessed
Laos PDR	B	C
Vietnam	D	D
Myanmar	A	- (grant terminated)
Nepal	C	D
Bhutan	B	C
Sri Lanka	C	C
Indonesia	B	C/D
Bangladesh	B	C
India	D	D+
Uganda	C	D
Tanzania	B	C
Kenya	B	C
Zambia	B	C

[5] https://www.flemingfund.org/publications/fleming-fund-phase-i-evaluation/

[6] In the majority of countries (17 of 22) with consistent Results Framework reporting available, total investment was £8m or less. The mean investment across all 22 countries was approximately £6.7m.

[7] **Category A** comprised countries without a NAP, or where a NAP was at an early or draft stage and not close to finalisation; such countries typically lacked functional coordination committees, may not have undertaken situation analyses, and showed limited engagement with the AMR agenda, and were therefore not favoured for investment at that time. **Category B** included countries with a NAP in place but without an operational surveillance system; these countries had often received external support to develop AMR plans and recognised the need for surveillance, but implementation progress was limited largely due to resource constraints rather than an absence of political will, and they were the primary focus of Fleming Fund investments. **Category C** covered countries where modest surveillance arrangements existed – predominantly in human health – but were small-scale, fragmented and constrained by gaps in quality assurance, analytical capacity, laboratory capability and sustainability, with weak cross-sectoral integration for One Health. **Category D** referred to countries with relatively more advanced surveillance systems, in some cases including animal health, where support was expected to be more targeted and additive, aligned with government and other donor investments, and focused on nuanced contributions and strengthening One Health approaches.

Malawi	B	C
Eswatini	B	C
Rwanda	Not a Phase 1 country	Not assessed
Zimbabwe	B	C
Ghana	B	C
Nigeria	C	C/D
Sierra Leone	A	B
Cameroon	Not a Phase 1 country	Not assessed
Senegal	B	B

Source: MA Phase 2 Implementation

2.7 External shocks and implementation timelines

Implementation of the Fleming Fund was affected by a series of external shocks and contextual factors.

The COVID-19 pandemic disrupted laboratory operations, redirected capacity towards emergency testing, constrained staffing and delayed planned activities. Global inflation and supply-chain disruptions affected procurement timelines, availability of consumables, equipment maintenance and operating costs.

Domestic political and fiscal changes in the UK resulted in repeated cycles of spending review, replanning and approval, affecting programme sequencing and timelines. These factors contributed to delays and reduced effective implementation time in several countries.

In the following tables, we present a) an overview of key contextual events and programme milestones, including contracting (Table 7); b) more specific detail about how the process of Phase 2 design unfolded, with timings (Table 8); and c) an example of timeframes from design to implementation for a subset of Phase 1 countries (Table 9).

Table 7: Key events that materially influenced Fleming Fund implementation

Year	Date	Event	Descriptor/notes
2015	Feb	Early recommendations from *The Review on AMR*	Early recommendations (pre-report outputs)
2015	May	UK General election	UK political milestone
2015	Nov	AMR fund increased to £265m	UK funding decision
2015	Dec	Early market engagement for MA begins	Procurement preparation/ market engagement
2016	Apr	Fleming Fund design starts	Programme design phase begins
2016	Jun	EU referendum in the UK	UK political milestone
2016	July	New government formed under Theresa May	UK political milestone. Change of ministers, delays to Business Case.
2016	Sep	Fleming Fund pilot in Vietnam starts	Early pilot activity
2016	Oct	MA and Itad inception phases start	Delivery & evaluation mobilisation begins. MA inception originally intended to be 9 months but in practice more than 18 months due to

			range of factors, including UK elections, new government etc.
2016	Nov	UK Gov announces £195m fund to tackle AMR	UK funding announcement
2017	May	*The Review on AMR* (O'Neill report) published	Publication milestone
2017	Jun	UK General election	UK political milestone
2017	Aug	MA inception phase extended	Inception timeline adjusted
2017	Sep	UN High Level Meeting on AMR	International milestone
2017	Oct	Business Case for Phase 1 produced and inception phase extended further	Phase 1 Business Case completed and inception timeline adjusted
2017	Dec	MA extended inception phase ends	Inception closes
2018	Aug	First country grant starts	Implementation of country-level activities begins, starting in Nepal
2019	Late	Majority of CGs have started	Substantial implementation under way
2019	Dec	UK general election	UK political milestone
2020	Jan	COVID-19 confirmed by WHO as international public health emergency	Global health milestone
2020	Mar	UK lockdown due to COVID-19	UK COVID policy milestone
2021	Jun	G7 Health Ministers meeting	International milestone
2021	Nov	ODA reduced to 0.5% GNI	UK ODA policy change
2021	Dec	Business Case for Phase 2	Phase 2 Business Case completed
2024	Feb	ODA reduced to 0.3% GNI	UK ODA policy change
2024	Jul	UK General election	UK political milestone
2024	Oct	No-cost extension starts for MA and Itad	Contracting/delivery extension
2025	Jun	UK Gov spending review	UK fiscal milestone. Decision to close Fleming Fund.
2026	Mar	Fleming Fund Phase 2 ends	End of Phase 2 (as listed)

Table 8 below shows that Phase 2 design and sign-off took place within a complex and shifting decision-making context, characterised by changes in political leadership, multiple assurance and approval cycles, and extended sequencing of programme-level processes. The timeline records successive iterations of the Phase 2 Implementation Plan (IP), alongside the Phase 2 Business Case and spending review processes and parallel arrangements relating to the MA contract. Together, these overlapping approval, contracting and planning cycles created cumulative delays in programme mobilisation before full implementation could proceed at pace and scale. As a result, although the Fleming Fund was nominally conceived as a ten-year programme, the time available for effective Phase 2 delivery and consolidation was materially reduced by the combined effect of design timelines, approval and re-approval requirements, and wider external disruptions.

Specifically:

- Phase 2 design and mobilisation unfolded over several years, with overlapping approval, contracting and planning processes rather than a single, linear sign-off point.
- Key programme mobilisation steps – most notably approval of the Phase 2 IP – occurred well into the nominal Phase 2 period, constraining the window available for full implementation and consolidation.
- The cumulative effect of approval cycles, contract extensions and iterative planning meant that effective implementation time was substantially shorter than the programme's nominal ten-year horizon, even before accounting for broader external shocks.

Table 8: Phase 2 Business Case and IP development

Period	Process area	Milestone / activity (neutral description)
2020	Programme approvals	Initial Phase 2 continuation and extension arrangements considered
2020–2021	Political context	Multiple changes in ministerial leadership during early Phase 2 planning
2021	Programme approvals	Phase 2 Business Case development and review cycles initiated
2021–2022	Programme approvals	Further assurance and confidence steps; funding confirmed on a time-limited basis
2022	Delivery arrangements	MA contract discussions and extensions agreed to enable Phase 2 transition
Early–mid-2022	Programme mobilisation	Initial Phase 2 IP prepared and submitted
Mid–late 2022	Programme mobilisation	Substantive feedback provided; revised IP iterations submitted
2023	Programme mobilisation	Further IP revisions and resubmissions leading to final approval
Late 2023	Programme mobilisation	Phase 2 IP approved, enabling full implementation to proceed
2024	Delivery period	Phase 2 implementation continues within remaining programme timeframe

Table 9 provides an overview of how Phase 1 implementation rolled out. This is materially discussed in the Phase 1 summative evaluation, which notes that grant start-up was staggered across countries and that the effective duration of implementation varied substantially as a result. The Phase 1 summative was explicit that building functional AMR surveillance systems is an incremental process, and that meaningful results in data generation were not expected before around 36 months of sustained support. In practice, however, country grant implementation began around two years after the formal start of the programme, reflecting delays associated with contracting the MA, an extended inception and approval phase, country positioning and tendering processes, and subsequent COVID-19 disruption. As a result, by June 2022, fewer than half of eligible countries had reached the notional 36-month threshold. Variation in observed progress across countries was therefore interpreted not as differential performance alone, but as a function of uneven time in implementation, with many grants having insufficient duration to realise expected outputs.

Table 9 Phase 1 implementation evaluation focus countries

Country	2018				2019				2020				2021				Duration (months)
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Nepal (EIC)						SA,AR,DP											18
Ghana (EIC)							SA,AR	DP									18
Uganda (EIC)						SA	AR,DP										18
Bhutan								SA,AR									9
Laos							SA	AR	DP								15
Tanzania								SA,AR	DP								15
Nigeria								SA	AR,DP								15
Pakistan								SA	AR,DP								12
Vietnam								SA	AR,DP								12
Sierra Leone										DP	AR						9
Kenya										AR,DP							09 or 10
Timor-Leste								SA	AR,DP								12
Senegal										DP	AR						9
Zambia										AR,DP							11
Indonesia											AR,DP						8
Bangadesh											AR	DP					7
Burma (EIC)		GN&S								AR							18
India					GN&S								AR				4
Sri Lanka						GN&S			SA	AR							12
Burkina Faso							GN&S				AR						21
Malawi							GN&S				AR						9
Papua New Guinea							GN&S				AR						8
Swaziland												AR					7
Zimbabwe												AR					7

Phase key

Delayed start	
Inception	
CG1 (first grant)	
CG1 / CG2 overlap	
CG2 (second grant)	

Milestone codes

GN&S	Generation & Scoping
SA	Situation Analysis
AR	Analytical Report
DP	Dissemination

Notes

Each column is one quarter (Q1 = Jan–Mar, Q2 = Apr–Jun, Q3 = Jul–Sep, Q4 = Oct–Dec).

Phase shown per quarter is the one occupying the most months in that quarter.

2.8 Original commissioning aims, exclusions and assumptions

Original commissioning documentation[8] for the Fleming Fund set out a series of aims, exclusions and design parameters that shaped programme scope and delivery.

The programme aimed to strengthen:

- laboratory capacity for diagnosis;
- generation of AMR surveillance data;
- sharing of AMR data locally, regionally and internationally;
- analysis of AMU and consumption data; and
- application of surveillance data to support rational use of antimicrobials.

The programme explicitly excluded funding for research as a primary objective; development of new products; support to non-ODA-eligible countries; and direct financial disbursements to governments.

Early design assumptions included expectations that strengthened surveillance capacity would support improved decision-making, that laboratory-centred models could be scaled across diverse contexts, and that capacity building would support longer-term system sustainability. Over time, a programme-wide ToC (April 2017) and Results Framework (Phase 2) was developed to articulate broader ambitions related to data use, outcomes and sustainability.[9]

The decision to adopt a DHSC-led, laboratory-centred model drew on areas where the UK had established technical and institutional capability, particularly in public-health microbiology, laboratory quality management systems, EQA, and standardised AST. These capabilities are reflected in the programme's ToC and design documentation, which emphasised laboratory infrastructure, workforce development, quality systems and participation in global surveillance platforms as the primary entry points for strengthening AMR surveillance systems.

The Phase 1 surveillance strengthening approach prioritised a standardised set of pathogens and drug–bug combinations aligned with WHO/GLASS guidance and the Global Action Plan (2015). [10] This focus was intended to support comparability across countries and enable international reporting, without over-extending limited early capacity. At the same time, the Fund supported the development of general microbiology services capable of identifying a wider range of organisms, recognising both routine diagnostic requirements and country-defined priorities. Within this broader service, AMR surveillance systems were expected to prioritise GLASS-aligned pathogens for AST, while remaining responsive to national needs.

In Phase 1, the Fund supported a standardised set of activity domains that framed what CGs could and could not include. These included laboratory infrastructure enhancement; human resource strengthening; surveillance systems strengthening; building foundations for data use;

[8] First business case (Sept 2017, developed after programme started in October 2016 and MA contracted); addendum extending Phase 1 to March 2023; and Phase 2 Business Case (Dec 2021).

[9] See also Phase 2 BC. Note that there was a theory of change (or conceptual framework) in the original programme documentation but this needed refinement to ensure use in programme oversight and evaluation. The results framework was developed collaboratively during 2022 to ensuring reporting across the ToC, to complement programme reporting (primarily at output level) that was done in Phase 1.

[10] Surveillance is one component of an AMR response, as defined in the Global Action Plan on AMR (2015). See https://www.who.int/publications/i/item/9789241509763

(more limited) rational use/AMU linkages. In this way, CGs were assembled from a common menu of activities, and results sought, tailored to each country after a series of planning visits and scoping studies.

3. Methodology

3.1 Purpose and objectives

This summative evaluation assesses what the Fleming Fund achieved between 2017 and 2025, spanning both phases of implementation. It builds on earlier evaluative work, including the Phase 1 Summative Evaluation and the 2024 Progress Report, and incorporates additional evidence collected during 2025–26.

The evaluation serves two purposes:
(1) accountability to Parliament and UK taxpayers for the use of ODA; and
(2) learning to inform future UK and international investments in AMR and other complex global health system programmes.

It focuses primarily on country-level results, while also considering regional and global interventions where these plausibly influenced country outcomes. The assessment is summative in nature and does not evaluate forward-looking policy options, which fall outside the agreed scope of this report.

Performance is assessed against the Fleming Fund's stated objectives, design parameters and Results Framework, as set out in approved programme documentation and agreed revisions over time. This provides a consistent and transparent basis for accountability given the scale, duration and technical complexity of the programme.

3.2 Analytical framework and evaluation questions

Within the above scope, the evaluation addresses the following six core questions (Table 10).[11] The specific approach to addressing each of these questions is included in the evaluation matrix in Table 11, including questions and criteria, judgement criteria, data sources and analytical methods.

Table 10: Evaluation Questions

EQ #	Evaluation question
EQ1	To what extent has there been an increase in the (a) generation, (b) analysis and (c) sharing of quality AMR analysis at country level? How and why? What has been the Fleming Fund's contribution to changes in analysis shared with relevant stakeholders?
EQ2	To what extent have the Fleming Fund's investments been a) aligned to national plans and priorities; b) coherent across the Fleming Fund portfolio [internal coherence]; and c) with other relevant investments at country level [external coherence]?
EQ3	How likely are the Fleming Fund's country-level results to be sustained? How and why?
EQ4	To what extent has the increase in AMR/U/C and relevant Global Burden of Disease (GBD) [burden] data influenced (a) changes in national policies/regulations and/or (b)

[11] A seventh question relating to the sustainable integration of AMR burden calculation under the GBD study initiated under the Fund-supported Global Research on Antimicrobial Resistance (GRAM) project is outside the agreed scope of this summative assessment and is therefore not covered in this report.

	changes in practice and attitudes in-country and/or (c) changes in funding decisions made by national governments or international donors?
EQ5	What has been the increase in quality data shared and reported internationally? How and why?
EQ6	Did the Fleming Fund's investments at country level offer VfM?

Table 11: Evaluation Matrix

Evaluation question (eval criteria in brackets)	Judgement criteria	Data sources	Analytical methods
EQ1 What has been the increase in the generation of quality AMR data at country level, and to what extent has the Fleming Fund contributed to this increase? (Criteria: relevance, effectiveness, efficiency)	*Quantity* Extent of increase in key data types (AMR/U/C, burden and economic data): **comparing baseline** (Q3 2023) and **endline** (Q3 2025) and, where relevant, extending baseline to 2018 **Triangulate** views of **key informants** of whether there has been an increase *Quality* AMR data generation quality: trends in EQA scores and laboratories using SOPs AMU data generation: assess methodology for point prevalence surveys (PPS – i.e. was a recognised PPS methodology followed?) AMR data analysis: assess methodology for antibiogram development AH active sampling: considering selection of sites, species, samples and sampling	Results Framework reporting MA quarterly reporting MA annual reporting Direct grantee reporting Country-level databases (NRL, CVL) Key informant interviews (KIIs) at country, regional and global levels MA outputs: political economy analysis (PEA), site assessments & plans, CIS	*Quantity* Case based (12 country cases) Theory-based contribution analysis. Cross-case analysis and generalisation to overall Fund-level findings and conclusions *Quality* Use of judgement criteria to assess whether changes have occurred using before and after assessments for specific indicators. Cross-case analysis and generalisation to overall Fund-level findings and conclusions
EQ2 To what extent have the Fleming Fund's investments been aligned and coherent a) across the Fleming Fund portfolio [internal coherence;[15] and b) with other relevant investments at country level [external coherence]? (Criteria: coherence)	Alignment with national plans and priorities: **triangulate views of key informants of whether so** Internal and external coherence: **using the OECD/DAC definitions of internal and external coherence**	Grant proposals and work plans (MA and DGs) Country Coordination Committee (CCC) minutes KIIs NAPs MA outputs: PEA, sustainability plans, CIS	Case based (12 countries) Triangulation of key informant (KI) views of alignment by stakeholder group at country level. Verification of whether intended systems to deliver internal and external coherence are in place and operated as expected. Triangulation of KI views.

			Cross-case analysis and generalisation to overall Fund-level findings and conclusions
EQ3 How likely are Fleming Fund's country-level results to be sustained? (Criteria: sustainability)	Outputs set out in Fleming Fund sustainability and exit plans at country level have been delivered as planned. Whether coherence in approach to sustainability. Whether contributed to sustainability of intended outcomes observed Comparing Fund's actual approach to sustainability with good practice	Results Framework reporting MA reporting Sustainability and Exit Plans Triangulated views/opinions across key stakeholder groups	Case based (12 countries) Analysis of what is reported in Fleming Fund reporting system triangulated with evidence from KIIs with relevant stakeholders at country level Judgement of Fund's approach to sustainability: analysis against lessons identified in literature review
EQ4 To what extent has the increase in AMR/U/C and relevant GBD [burden] data influenced: (a) changes in national policies/regulations; and/or (b) changes in practice and attitudes in country (c); and/or changes in funding decisions made by national governments or international donors? (Criteria: relevance, effectiveness,)	*Action on AMR* National policy & regulation (i) International commitments – High Level Meeting (HLM) track, UNGA 2024 & future (ii) Significant revision(s) of national AMS/IPC guidance to combat AMR (Essential Medicines Lists (EML), treatment guidelines or equivalent) (iii) Significant regulatory amendment to combat AMR Practice & attitudes in country: (i) evidence of significant clinical/practitioner AMR initiatives at local (facility) level (ii) evidence of increased expenditure on laboratory AMR activities at local (facility) level (iii) significant implementation of plans or other initiatives for systematic national scaling of local clinical/practitioner engagement Resource allocation Evidence of increased resource allocation to AMR action at national level	International process publications (e.g. HLM statements) National policy and regulation publications (direct but building on monitoring e.g. AMR-LEX, Global Database for Tracking AMR Country Self-Assessment Survey (TrACSS)) MA & direct grantee reporting KIIs – national- and site-level Narrative reporting by site level stakeholders National Health Accounts Development partner programme publications NAP publications (building on WHO library)	*Action on AMR* **Case based (selected outcomes that change in the 12 country cases)** Change at outcome level: Fund reporting supplemented by KIIs Contribution analysis (for summative report) Outcome harvesting Legal/policy surveillance Time series analysis Possible systems mapping Policy agenda analysis (Kingdon Multiple Streams Approach-MSA) Literature review *Clinical engagement* **Case based (selected sample of clinical facilities in the 12 country**

	Increased expenditure on AMR by other key development partners *Clinical engagement* Clinician stakeholders clearly identified and taking ownership of AMR Organisational forms for CE – committees formed or adding AMR to agenda, staff routine responsibility for relevant tasks, working with network of people in sites with reporting as part of their normal job description (hub and spoke model being used?) Institutional proactivity – regular meetings, ambitious timelines Information system initiatives – new health management information system (HMIS), training etc; initiatives to improve timeliness or utility of AMR surveillance data to clinicians; interoperability Decision processes – which, when, how, what influence SOPs for specimen collection and transport in HH and AH Evidence of use of AMR data to inform prescribing in HH and AH Evidence of improved clinical awareness of AMR as a priority in HH and AH *One Health* Progress against the MA step-wise approach to OH Evidence of <u>interactions</u> across sectors in formal as well as informal (non-AMRCC) spaces	MA CIS, PEA/Data & Evidence Use Plan (DEUP) Guidance; CG PEAs & DEUPs OH assessments Publications and data gathered by Fleming Fund partners working directly on use (e.g. RADAAR2) Results Framework reporting	**cases with main focus on hospitals)** Before and after analysis of key indicators of clinical engagement in selected facilities **Case based (12 country cases)** Triangulated KIIs and then review of cited evidence that operationalised *One Health* **Case based (12 country cases)** Triangulated KIIs and then review of cited evidence that operationalised Cross-case analysis and generalisation to overall Fund-level findings and conclusions

	Formal: Establishment of integrative databases, such as tricycle; Informal: Increased references to other sectors' goals or expectations in AMR policy discussions (e.g. markets, production, employment, etc.) Use of integrative data analysis (drawing from multiple sectors) in policy documents (around analysis and decision-making tie up with section 3.5).		
EQ5 What has been the increase in quality data shared and reported internationally and has the Fleming Fund contributed to this? (Criteria: relevance, effectiveness, efficiency)	Extent of increase in key data types: Changes in # countries reporting to GLASS and WOAH Changes in types of information provided to GLASS (especially different modules) and WOAH and InFARM Changes in data shared with GRAM **Compare baseline** (Q3 2023) and **endline** (Q3 2025) (where relevant extending baseline to 2018 to observe results since start of Phase 1)	Results Framework reporting GLASS reports ANIMUSE reports and data from WOAH InFARM reports and data from FAO GRAM KIIs	Before and after analysis of key indicators for data availability, **comparing baseline** (Q3 2023) and **endline** (Q3 2025); where relevant extending baseline to 2018 to observe results since start of Phase 1. **Comparative analysis** to identify differences in performance between Fleming Fund focus countries and non-Fleming Fund countries using global and regional averages as comparators
EQ6 Did the Fleming Fund's investments at country level offer VfM? (Criteria: effectiveness, efficiency, impact)	*Managing for VfM* Judgements using **UK Department for International Development (DFID) framework for judging integration of VfM into project design, procurement/mobilisation, implementation and closure**[31] Timing/duration of CIS processes and time available for actual implementation Systems to manage for economy and efficiency Systems to manage for effectiveness Financial systems that allow tracking of cost per output	Programme documents grant proposals VfM approach of grantees/MA/ implementing partners Quarterly reporting Annual Reviews Results Framework Evaluation KIIs Other evaluation data collection tools, e.g. site visit reports	*Managing for VfM* Judgement on VfM using the following criteria: implementing partner has a VfM approach: using RAG ratings to identify, for example: 0 – does not have an approach; 1 – has an approach in proposal but it is not followed; 2 – has an approach in place and is implemented; 3 – has an approach in place with evidence of VfM improvements as a result

	Procurement – selection of agreed list, economies of scale Technical assistance (TA) under RGs (and DGs?) – how is it called down? G&E approach strengthened *Measurement of VfM* Judgements drawing on the National Audit Office (NAO)/FCDO[16] 4E framework to make evaluative judgements under the 3Es, but only looking at 4Es, including Equity, under EQ sub-question 1: managing for VfM A detailed assessment framework will be developed for the summative evaluation, informed by the VfM approaches of implementing partners and based on Itad's framework for assessing VfM.[17] It will include: Economy measures, e.g. evidence of savings from procurement Efficiency measures, e.g. overhead rates compared to benchmarks Effectiveness measures, e.g. evidence of results at or above targets in Results Framework		Cross-grant analysis to identify strengths and weaknesses by grant manager, and KIs with relevant grant managers to explore reasons for good/poor performance *Measurement of VfM* *Focus analysis at the level of the fund.* We will report findings under the 3Es, and relevant benchmarks for each

3.3 Evaluation team

The Phase 2 summative evaluation was conducted by the team:

- Tim Shorten, Evaluation team leader
- Lamiaa Shehata, Deputy team leader and EQ2 lead (coherence)
- Giada Tu Thanh, Strategic Advisor, Contribution Analysis and Gender & Equity lead
- Ruth Sherratt, EQ1 and EQ5 lead (data generation, analysis, sharing)
- Ankur Gupta-Wright, clinical microbiologist, lead on data quality and clinical engagement
- Syed Abbas, One Health lead
- Rebecca Maudling, Animal Health lead
- Marco Maragno, EQ3 lead (Sustainability)
- Archie Drake, EQ4 lead (Data use)
- Jennifer Armitage, EQ6 lead (Value for Money)
- Cheryl Brown, Learning and dissemination lead
- Paul Balogun, Senior Strategic Advisor, internal QA

Country data collection for this summative report was conducted by:

- Pakistan: Aminah Rajput
- Nigeria: Ozioma Nwagwu
- Kenya: Pippa Page and Eric Ogola
- Nepal: Anila Shafa, Mega Raj Banjara
- Indonesia: Ignacio Torrano

Leadership and support from Itad were provided by:

- Jon Cooper, Project Director and internal QA
- Sarah Lamb, Senior Project Manager
- Anita Pavic, Research Analyst and quantitative data lead
- Christine Martin, Research Analyst
- Hanifa Ali, Research Analyst
- Bikash Gyawali, Power BI support
- Tahmina Begum, graphic design support

3.4 Evidence base and data collection

The evaluation adopted a mixed-methods approach, drawing on multiple sources of evidence, summarised in Figure 3:

- Structured review of programme documentation, including grant designs, monitoring reports and strategic documents;
- Results Framework data covering all Fleming Fund countries;

- In-depth country case studies combining document review and interviews with national stakeholders; and
- Global and regional KIIs with multilateral organisations, technical partners, the MA and DHSC.

Figure 3: Summary of evidence base for this report

3.4.1. Document review

Document review was conducted through manual coding using an Excel matrix and artificial intelligence (AI) coding through the platform Atlas.ti. The main source for the document review was MA and grantee programmatic documents, plus notes of country and global KIIs as summarised in section 3.4.2.

The process for manual document review involved reading through selected documents and pulling out excerpts which were coded against an agreed coding tree. Documents were chosen to be coded based on their broad relevance across the programme and EQs (i.e. synthetic, cross-country and reflective documents were prioritised). Manual coding was conducted over a period of several months with one Research Analyst (RA) doing the bulk of the coding, while two other RAs supported. This was done to ensure consistency throughout the coding process. A trial period was conducted so that the RA could code a sample of documents for review before commencing the coding process. Check-ins were scheduled during the coding process so the RAs could check the codes for quality.

For AI coding, documents were grouped by subject area or country and run through Atlas.ti to pull out excerpts relevant to the EQs. Sessions were set up with thematic and country leads to review the content that the AI generated, preventing potential hallucinations. The manual coding

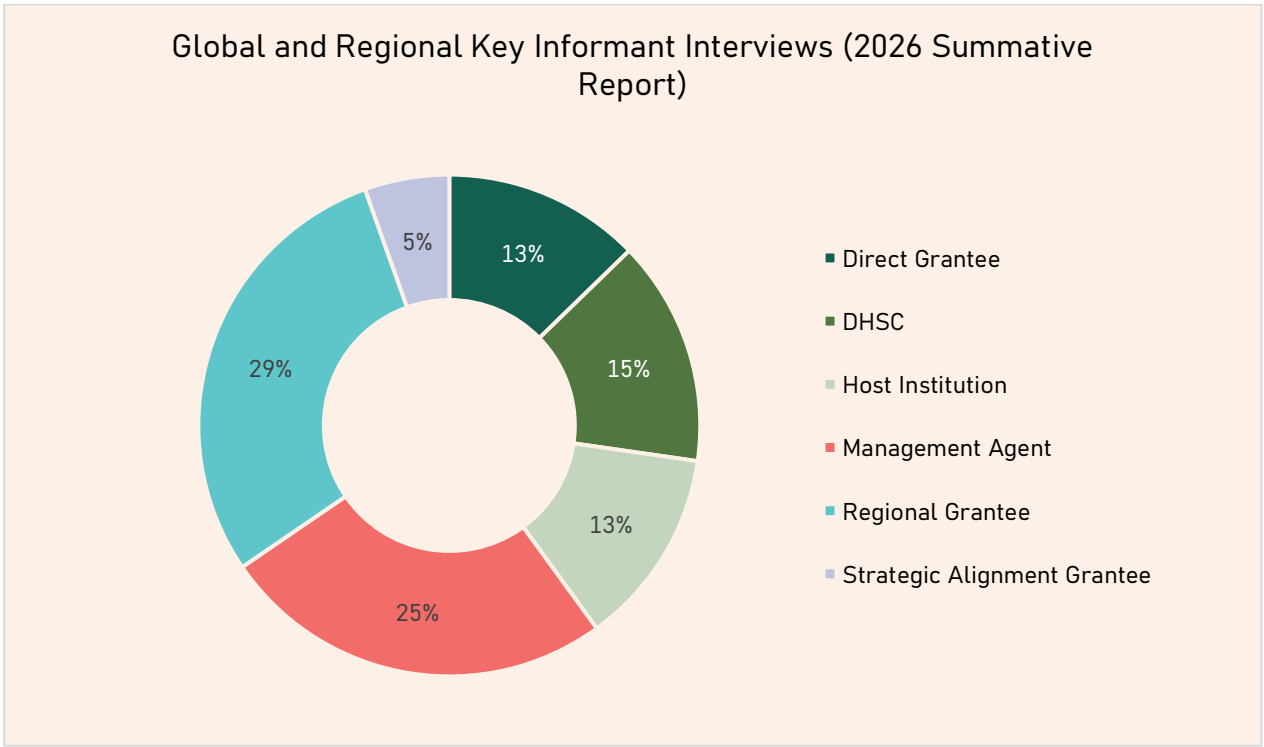
described above was undertaken to ensure that any concerns identified with AI coding did not create problems in terms of delivering against the evaluation workplan.

A total of 124 documents were reviewed exclusively for the summative report, taking into account that the summative report built upon the work conducted for both the Phase 1 Summative Evaluation and the 2024 Progress Report (as summarised in Figure 3).

3.4.2. Key informants

There were a total of 117 KIIs carried out, 55 at global/regional level[12] and 62 at country level. KIs were selected to provide perspectives of key implementing partners and stakeholders. The split at global/regional level is reflected in Figure 4. At country level, evaluation teams identified a set of priority stakeholders with the aim of conducting approximately 20–30 interviews per country. Teams were advised to include representatives from: the country grantee; relevant government institutions (including human and animal health, drug regulation and, where relevant, environment); AMR coordination bodies or focal points; Fleming Fellows and alumni; selected direct grantees (e.g. Food and Agriculture Organization (FAO) and WHO); donors; and a small number of additional stakeholders identified to reflect country context. Evaluation teams were responsible for finalising interviewee selection, drawing on a master stakeholder list and KI lists from previous rounds of data collection.

Figure 4: Global and regional KIIs conducted for this summative report



These KIIs built upon the 350+ that were conducted for the 2024 Progress Report and the 400+ conducted for the Phase 1 summative report. A full list of key stakeholders interviewed in preparation of this report is available on request.

3.4.3. Programme reporting

[12] 55 were conducted of 60 requested.

3.4.3.1. Results Framework

A programme-level Results Framework was developed for Phase 2, reflecting best practice in terms of UK government guidance.[13] The Results Framework was developed with inputs from key Fleming Fund implementing partners, including the MA team and Itad (as facilitator, drafter and co-designer), under the leadership of the DHSC Fleming Fund team. The Framework is structured around the ToC (Annex 2.1) and includes 51 indicators, each of which was defined with detailed indicator definitions, data sources, etc.; a copy of the Results Framework is available online.[14] Annual targets were to be developed for a subset of 36 indicators as described in Box 5. Indicators without targets were drawn from existing international sources where it would have been inappropriate to develop Fund-specific targets.

[13] At the time these were set out in the DFID Smart Rules (2020), subsequently replaced by the FCDO Programme Operating Framework https://www.gov.uk/government/publications/fcdo-programme-operating-framework

[14] https://drive.google.com/file/d/1lqxGE58afMIaz8p6CzjznT44-2daBZrM/view

Box 5: Target-setting and accountability across grant types

Formal targets were developed and agreed at the portfolio level (rather than country or grant-specific) level performance. The country was the primary unit of *contribution* to results framework targets across all Phase 2 areas of delivery, in terms of assessing progress on strengthening laboratories, workforce capacity and national AMR governance arrangements, alongside AMR/C/U data production, analyses, data sharing domestically and internationally, and work on sustainability building

Result framework indicators and associated targets mapped directly to relevant areas of the Theory of Change. Focusing on: (1) delivery of foundational surveillance capacity, including numbers of supported laboratories and sites, workforce development activities, and the establishment or functioning of national coordination mechanisms (output level); (2) AMR/C/U data production, analyses and sharing (intermediate outcome level) and; (3) Sustainability (long term outcome level) . Performance against these agreed targets is summarised in Vol 1 Section 4.1 and Annex 4.1.

No direct programme-level targets were set for Regional Grants or global level grants. This reflects their intended role in delivering shared technical functions, services and public goods – such as regional quality assurance systems, analytical capability, training provision, data platforms, standards and normative guidance – rather than uniform, countable outputs at country level. That said, where pertinent (external quality assurance services provided by regional grantees), indicators and targets were included in the overall results framework, i.e. to enable the tracking of data quality via external experts.

Phase 2 targets were agreed prospectively between DHSC and the Management Agent for most indicators in early 2023 (for years 2023-2025) and for all levels of the results chain (output, intermediate outcome and long term outcome levels). These prospectively agreed targets were reviewed and adjusted annually in line with programme implementation performance. This was conducted via formal replanning processes. Targets were generally realistic and achievable within the programme's design and timeframe, though not all were designed as 'stretch' targets but what was deemed realistic and practical to deliver within prevailing programme conditions. It is also important to note that some indicator targets were set before baseline information was available and targets were therefore both initially based on projections (for 2023) and on projections against these projections (for subsequent years). Some targets were set but not revised in light of subsequent programme decisions – e.g. the target for strengthening laboratories in 2025 reflected plans at the time that the Fund would work in 25 countries, which did not subsequently materialise as planned.

Performance against annual targets is shown in Annex 4.1, Figure 5.

3.4.3.2. Other MA reporting

In addition to reporting against the Results Framework indicators and targets, the MA provided narrative reports to DHSC on a quarterly basis. These synthesised quarterly reporting by all grantees managed by the MA (i.e. country-, regional-, strategic alignment- and host institution-grants, not direct grantees covered in the next section) and provided highlights on key themes against the ToC, including progress on results delivery, emerging risks and challenges, and illustrative examples of data production, use and sustainability at country and portfolio levels. The 2026 summative evaluation process reviewed these reports as part of the document review described in section 3.4.1.

3.4.3.3. Direct Grantee reporting

Grantees reporting directly to DHSC, described in section 2.2, also provided regular reporting – with some variation in scope and frequency reflecting contractual arrangements with DHSC. As with MA reporting, DG reports were incorporated in the 2026 summative evaluation document review process.

3.4.4. Country case studies

Country case studies for the 2026 summative report were selected to reflect diversity in geography, baseline surveillance capacity and implementation trajectories. Global and regional interviews were used to contextualise country-level findings within wider AMR surveillance and governance systems.

In Phase 1 and for the 2024 Progress Report, data was collected from 16 and 12 countries respectively, selected to maximise the extent of implementation evidence. This was based on our understanding of the MA's country roll-out schedule, and the number of countries in which data/results would be available.

Table 12: Evaluation focus countries across three key evaluation reports

	Phase 1	2024 Progress Report	2026 Summative Report
Bangladesh	x	x	
Bhutan	x		
Eswatini			
Ghana	x	x	
Indonesia	x	x	x
Kenya	x	x	x
Laos	x	x	
Malawi		x	
Nepal	x	x	x
Nigeria	x	x	x
Pakistan	x	x	x
Papua New Guinea			
Rwanda			
Senegal	x		
Sierra Leone	x	x	
Sri Lanka			
Tanzania	x		
Timor-Leste	x	x	
Uganda	x		
Vietnam	x		
Zambia	x	x	
Zimbabwe			
TOTAL	**16**	**12**	**5**

3.5 Analysis and triangulation

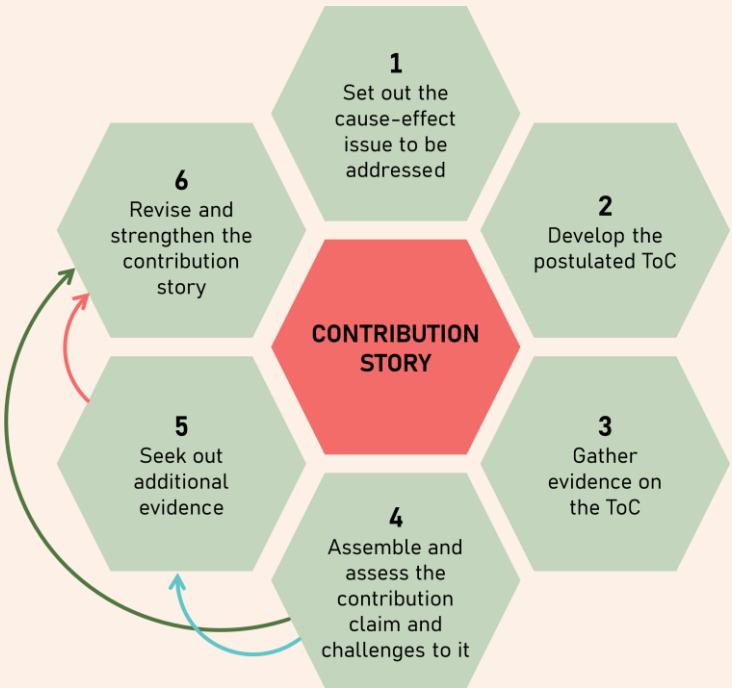
We examined how and where the Fund plausibly contributed at different levels of the ToC, rather than seeking to attribute change to the Fund (see Box 6 for details):

- **Phase 1 Summative Report**: changes in the quantity (C1a) and quality (C1b) of country-level AMR/C/U data generated at country level.
- **Progress Report:** changes in sharing of good-quality analyses. We looked at sharing with three groups of decision-makers since 2018: relevant committees (typically AMRCCs); within facilities/practitioners at local level; and decision-makers who can make resource allocation decisions at country level.
- **2026 summative evaluation**: changes in national policy and regulation under EQ4a.

Box 6: Contribution analysis

Contribution analysis is a method that is used to answer EQs about *how* and *why* things happened, rather than to establish whether they happened. It is a method that is based on the existence of, or the development of, a postulated ToC for the intervention being examined. A ToC sets out *how* and *why* it is believed that the intervention's activities will lead to a contribution to the intended results. Contribution analysis then tests this theory against the evidence available on the results observed and the various assumptions behind the ToC and examines the role of other influencing factors. The analysis either confirms – verifies – the postulated ToC or suggests revisions in the theory (based on iterations of data collection and analysis) where the reality appears otherwise.

Contribution analysis is usually applied through six clear steps (see figure below). It is important to note that these steps incorporate a process of iteration around the ToC and the contribution story (steps 4, 5 and 6), which can lead to revising the ToC if appropriate.



Firstly, we assessed the extent to which key changes were observable within the implementation timeframe. Secondly, for each key change, we established what the key drivers had been. Thirdly, we assessed the extent to which it is plausible to believe that the Fund contributed to the observed changes *vis-à-vis* the contribution of other influencing factors.

We also undertook thematic- and VfM analysis to complement the contribution analysis described above. For **thematic analysis**, we used a coding tree framed by the EQs (described in sections 3.2 and 3.4.1). For **VfM analysis**, we assessed VfM across the four standard dimensions

of economy, efficiency, effectiveness and equity, covering cost control, delivery efficiency, achievement of results and who benefits. VfM judgements are made at portfolio level, recognising variation by sector, country context and delivery modality (country-, regional, strategic alignment and DGs, plus Fleming Fellowships).

Cross-case synthesis was used to identify common patterns and contextual variation across countries and sectors.

Findings were triangulated across data sources to strengthen credibility and reduce reliance on any single perspective. Where outcome-level evidence was incomplete or emerging, the analysis focused on trajectories and patterns, rather than definitive impact claims.

Where quantitative indicators and qualitative evidence point in different directions, greater evidential weight has been placed on triangulated qualitative evidence to interpret what indicators likely represent in practice.

3.6 Limitations

The evaluation faced several limitations.

- Opportunities for primary data collection during Phase 2 were constrained by time, budget and feasibility, with greater reliance on remote interviews and document review.
- Many Phase 2 strategic shifts (as described in section 2.4) were still at early stages, limiting the availability of outcome-level evidence.
- Data quality and completeness was varied. Results Framework reporting improved over time, but inconsistencies remained across countries, sectors and indicators, particularly in AH and antimicrobial consumption. In addition, global reporting platforms such as GLASS, WOAH and InFARM do not reflect national data in real time, meaning recent country-level data were not always visible at the point of analysis.
- A recurring issue is the use of specimen numbers as a criterion for success of the programme. The reports tracks increases in sample volumes and throughput as a stand-alone metric. This was the agreed way of looking at increases in quantity of AMR from the start of the evaluation. It is not used as an overall criterion of success of the programme, but as the best available proxy for looking at quantity of AMR data generated, based on what was available from MA reporting. The report also looks at two other intermediate outcomes, and also focusses on progress at long-term outcomes. Other metrics of AMR data generation (e.g. the number of bug-drug combinations available at at labs, antibiograms etc.) were not available.
- Indicators of sample quality are largely absent. The value of samples depends entirely on specimen quality and case mix. These questions were out of scope for the evaluation and the data on pre-lab and technical lab performance were not available. It is hard to report data on this from KIIs as there is so much variation across labs/sites let alone countries.
- Fleming Fund reporting was also only available to the end of 2025, while implementation continues to March 2026. Hence, this report does not capture all of the Fund's achievements – one quarter of activities and close-out is missed.

4. Findings

4.1 Output-level reporting

Output-level performance under the Fleming Fund was monitored primarily through the programme Results Framework, with indicators agreed between DHSC and the MA. These indicators focused on delivery of **foundational surveillance capacity**, including laboratories, workforce development and governance arrangements.

Output-level indicators were designed to track:

- establishment or strengthening of surveillance sites;
- laboratory technical competence and quality systems;
- workforce development and training outputs; and
- establishment and functioning of national AMR governance and coordination mechanisms.

This annex documents delivery against **agreed output-level objectives only**; findings therefore reflect what is observable from available programme-level monitoring data, which may not capture all of the Fund's activity. As set out in Section 4.1 of the main report, strong performance at output level does not imply automatic translation into intermediate or longer-term outcomes. Subsequent sections of the report examine:

- how outputs contributed to changes in data generation, analysis and sharing (Section 4.2);
- whether these changes influenced policy, practice or financing (Section 4.3); and
- the likelihood that output-level gains will be sustained (Section 4.4).

Figure 5 shows progress made during Phase 2 using Results Framework data across the HH sector, AH sector, and cross sectors. Baseline data is for 2022 and shows progress up until 2025, with the final column details the comparison between 2025 and 2022.

Colour coding for all columns except the final column show whether annual output-level targets have been met (green = met; dark red = not met). The final column shows whether progress has been made overall during Phase 2 (dark green = progress between 2022 and 2025; red = decline over the same period). See Box 5 for more information on how targets were set.

Across the full Results Framework period, **overall output-level performance improved over time**, with the majority of indicators showing positive trajectories from baseline through to the end of reporting in 2025.

- **Human health**: strongest and most consistent delivery, reflecting earlier focus, stronger baseline systems and greater institutionalisation of laboratory services.
- **Animal health**: substantial delivery but more uneven, shaped by weaker baseline systems, fewer supported sites and the resource-intensive nature of active surveillance models.
- **Environmental and food safety**: later introduction, shorter reporting period and more limited coverage, with output delivery concentrated towards the end of Phase 2.

These differences are important for interpreting later findings on outcomes and sustainability.

Figure 5 Human health, animal health, and cross-sector output- level reporting (see section 4.5.3 for Results Framework sustainability indicators)

	Positive Progress
	Made Annual Target
	No data
	Negative Progress
	Missed Annual Target

#	Human health		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022–25)	Interpretation notes (provided by the MA)
18	Data produced	Number of sites producing AMR surveillance data in HH.	148	148	151	188	187	240	210	62	Performance reflects year-on-year increase. 2025 target in practice not achievable as fewer than 240 sites actually supported in 2025 due to partial activation of grants (Sri Lanka) and country withdrawal (India). As per Box 5, targets were set prospectively but not updated to align with actual implementation development.
21	Data produced	Number of samples	155,990	155,000	1,137,427	600,000	1,828,113	1,700,000	2,138,126	1,982,136	Year-on-year increase.

#	Human health		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
		processed in each country in Fleming Fund-supported sites (HH related).									
23	Data produced	Number of AMU PPS conducted for HH.	51[15]	16	19[16]	36	24	100	47	-4[17]	As noted in Box 5, targets were set prospectively at the start of Phase 2. In this case, targets were forecasted but unfortunately not re-adjusted based on subsequent approved grantee work plans + adjusted work plans following programme wide budget reductions. Failing the target is product of an overly optimistic and unrealistic target. Important to note, that PPS surveys do not need to be conducted annually and linear year

[15] As noted with 2023 data for RF23, it is possible that 2022 data also reflect misunderstanding in grantee reporting.

[16] Original reporting on this was 48, but reflected misunderstanding by some grantees on what should be reported; this was subsequently fixed and the total (n=19) shown in Figure 5 is more accurate.

[17] Whilst targets reflected expectations to increase the number of PPS conducted each year, this does not reflect expectations in WHO methodology (see section 4.2.1 for more details).

#	Human health		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
											on year progression is not necessarily expected.
29	Data analysed	Number of countries generating national annual reports or policy briefs on either AMR; or AMU; or AMC in HH.	13	13	11	15	10	18	19	6	Reflecting increased focus on analysis as Phase 2 progressed, i.e. in keeping with the expected evolution of data production to analyses, and subsequent sharing and use.
31	Data analysed	Number of countries producing data for GLASS.	16	18	18	19	19	19	21	5	Year-on-year progress. In 2024, Rwanda and Sri Lanka were not included in the calculation due to them having <9 months Phase 2 implementation.
34	Data Shared	Number of countries submitting data to GLASS.	15	To set with Quadripartite	15	No target set	17	20	19	4	This indicator is linked to national government decision making and not within Fleming Fund control. Senegal reporting was retrospectively corrected, reducing the number from 20 to 19 in 2025.

#	Human health		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
38	Data shared	Number of Fleming Fund-supported HH sites where laboratory data is shared with clinical teams/ IPC programmes, and/or AMS programmes, or guideline development groups.	132			132	123	189	190	58	This measure shows improvement and target attainment over time, i.e. in keeping with the expected evolution of data production to analyses, and subsequent sharing and use. Missed target attainment in 2024 was not a wide miss.
39	Laboratory and surveillance system	Number of Fleming Fund-supported HH surveillance sites progressing through or maintaining an accepted level of competence which is informed by the London School of Hygiene &	121	123	128	150	151	188	186	65	Year-on-year increase. 2025 target missed by 2sites – not a wide miss

#	Human health		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
		Tropical Medicine Road Map.									

#	Animal health		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
19	Data produced	Number of countries implementing active AMR surveillance in selected animal species, in Fleming Fund-supported sites.	17	17	19	18	18	20	21	4	
22	Data produced	Number of samples processed in each country in Fleming Fund-supported	13,540	13,500	75,831	18,000	74,775	45,000	79,916	66,376	Year-on-year increase.

#	Animal health		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
		sites (AH related)									
25	Data produced	Number of countries conducting surveillance for AMU on farms.	12	5	12	2	9	12	16	4	
28	Data analysed	Number of countries generating at least one national annual report or policy brief on either AMR; or AMU; or AMC in AH.	9	9	8	9	9	18	18	9	Year-on-year increase after 2022, which missed the target by 1. Not wholly within Fleming Fund control.
32	Data analysed	Percentage of WOAH members supplying quantitative data to the AMU global database under Reporting Option 3.	30% of WOAH member countries reporting Option 3								No targets set.
35	Data shared	Number of countries	17	To set with Quadripartite	17	N/A	17	22	19	2	Positive direction of travel shown for this indicator – a

#	Animal health		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
		submitting data to the WOAH.									near miss in terms of attainment against target for 2025. Note, it is a country decision whether to submit to WOAH, or not, i.e. not under control of FF grantees.
36	Data shared	Percentage of WOAH members continuing to engage with the WOAH AMU global database.									No targets set.
37	Data shared	Number of countries submitting data to the International Antimicrobial Resistance Monitoring (InFARM) system.				10		7	10	10	The InFarm system took time to establish, hence prospective targets set but no data to collect /report before 2025.
40	Laboratory and surveillance system	Number of Fleming Fund-supported AH surveillance sites progressing	55	59	58	63	67	81	83	28	Year-on-year progress. 2023 target attainment was missed by 1 site, i.e. a close miss.

#	Animal health		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
		through or maintaining an accepted level of competence which is informed by the AH protocol.									

#	Cross-sector		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
15	Sustainability	Number of countries with a costed AMR surveillance strategy.	13	13	11	15	14	20	17	4	Year-on-year progress after 2022. All target attainment misses were 'near misses' (within 10% of prospective target). Note, FF had 'influence' but not 'control' of this indicator.
16	Sustainability	Number of countries with commitments to fund AMR surveillance.	14	14	13	16	20	19	21	7	Year-on-year progress after 2022. The missed target in 2024 was a near miss (by 1 country). Remarkably, the predictions were reasonably accurate given this measures country decisions

#	Cross-sector		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
											/commitments – not something the FF has control of.
17	Sustainability	Number of countries where government commitments have been translated into actual support for AMR surveillance.	14	14	10	14	19	19	19	5	Year-on-year progress after 2022. The missed target in 2023 was a near miss. Remarkably, the predictions were reasonably accurate given this measures country decisions /commitments – not something the FF has control of
24	Data produced	Number of countries implementing integrated AMR surveillance following a OH approach, such as the Tricycle protocol.	6	6	6	2	4	7	12	6	
26	Data produced	Number of sites with acceptable EQA scores.	Not known.		Not tracked, as agreed	20	115	146	134	No baseline for comparison	Year-on-year progress from 2024. Also: i)This was a near miss (<10% of target). ii) The measure of this is complicated.

#	Cross-sector		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
											Different strains were tested across EQA rounds, i.e. requiring differing technical levels of skill and complexity. So, round on round complexity of what being assessed not directly comparable. iii) Sites elected when to participate and when not to, i.e. the cohort was not fixed. See indicator 41 below for additional information.
27	Data produced	Number of countries using standard protocol(s) to measure the AMR burden of disease.	0		Not tracked, as agreed	3	8	15	17	17	
30	Data analysed	Number of countries generating an integrated, annual reports and/or policy briefs on either AMR; or	5		4	3	5	10	14	9	

#	Cross-sector		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
		AMU; or AMC AMR/U/C using an OH approach.									
33	Data shared	Number of countries where the national body in charge of the country's AM) strategy receives AMR data report(s) generated by surveillance sites at least once a year.	14	14	17	17	18	19	20	6	
41	Laboratory and surveillance system	Number of sites (HH/AH) progressing with proficiency testing or EQA scores.			Not tracked, as agreed	N/A	76	120	78	78	Slight increase year on year. However, EQA rounds differed in complexity and composition of sites participating i.e. whilst looking for broad trends over time, this is not an incremental and linear curve in terms of what is being compared round on round. A standardised methodology was agreed during Phase 2

#	Cross-sector		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
											with EQAsia and EQAfrica. This was applied to retrospective data.
42	Laboratory and surveillance system	Number of Fleming Fund sites (supplied with reagents and consumables) without stock-outs.	95	No target	50	150	108	168	250	155	Year-on-year progress. This indicator improved as systems and procurement mechanisms strengthened or adapted.
43	AMR workforce	Number of training attendances supported by Fleming Fund funding.	6,282	4,500	9,508	3,500	11,241	16,000	28,275	21,993	
44	AMR workforce	Number of active fellowships.				152	194	168	171	171	
45	AMR workforce	Number (%) of Fellows making progress in their professional /technical capabilities based on a combination of						80%	79%	No baseline for comparison	79% of fellows (118 /149) progressed in 80% or more of their competencies

#	Cross-sector		Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes (provided by the MA)
		Fellows (self-assessment) and mentors' assessments.									

Source: MA Results Framework indicator data.[18]

[18] Note that numbers in Figure 5 may differ from numbers in formal reporting to DHSC. This reflects an ongoing process of checking by the MA team and grantees, to strengthen reporting accuracy. Hence the analysis is focused on trajectories rather than definitive impact claims.

4.1.1. Laboratory strengthening indicators

Laboratory strengthening indicators tracked progress in establishing and upgrading surveillance laboratories capable of generating AMR data in line with international standards.

Indicators included measures of:

- the number of Fleming Fund-supported surveillance sites in HH, AH and (later) environmental sectors;
- progression of supported sites through defined competence or quality benchmarks;
- participation in external quality assurance (EQA) schemes; and
- achievement or maintenance of minimum technical competence standards.

Across the portfolio, reported results show that **most laboratory-related targets were met or exceeded**, particularly in HH. Progress in AH laboratories was more variable, reflecting differences in baseline capacity, fewer supported sites and reliance on active surveillance models. Environmental laboratory strengthening was introduced later and therefore reported over a shorter timeframe.

Indicator definitions and reporting approaches evolved over time, particularly with the introduction of sector-specific protocols and updated benchmarks.

Figure 6: RF39 – Number of Fleming Fund-supported HH surveillance sites progressing through or maintaining an accepted level of competence which is informed by the London School of Hygiene & Tropical Medicine Road Map

Figure 7: RF40 – Number of Fleming Fund-supported AH surveillance sites progressing through or maintaining an accepted level of competence which is informed by the AH protocol

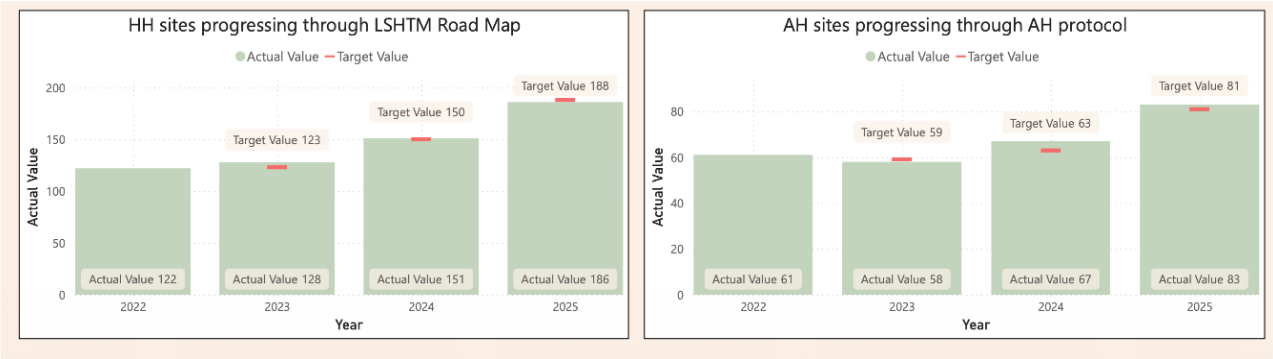


Figure 8: RF18 – Number of sites producing AMR surveillance data in HH

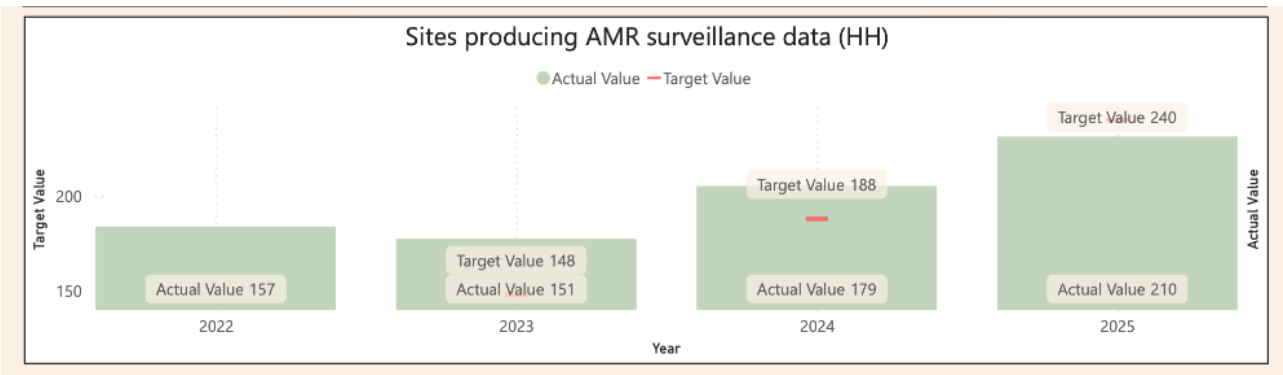
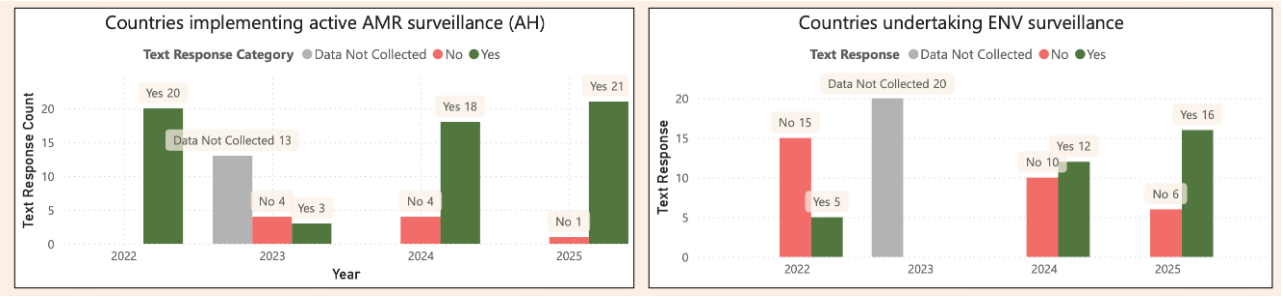


Figure 9: RF19 – Number of countries implementing active AMR surveillance in selected animal species, in Fleming Fund-supported sites

Figure 10: RF20 – Number of countries undertaking active surveillance of AMR or antibiotic residues from environmental samples and/or products of animal origin



4.1.2. Workforce development indicators

Workforce development indicators captured delivery of training, mentoring and Fellowship activities intended to strengthen technical and analytical capacity for AMR surveillance.

Indicators included measures of:

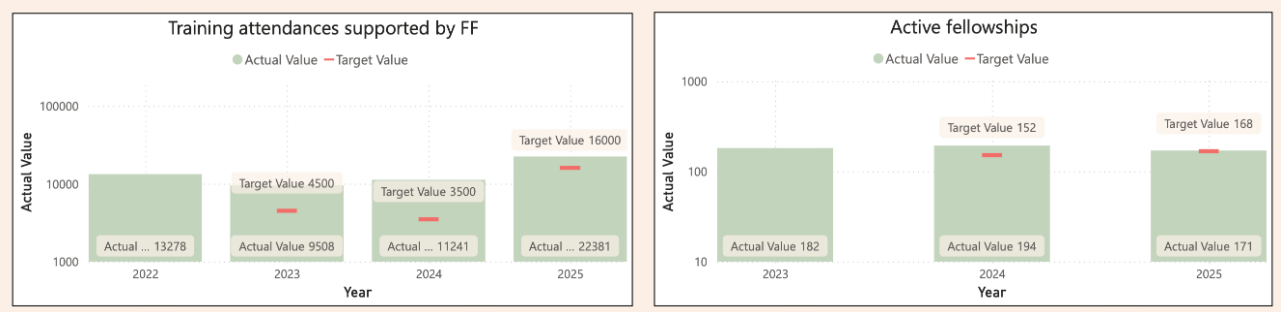
- training attendances supported by Fleming Fund funding;
- participation in structured training and mentoring programmes; and
- numbers of active Fellowships supported through the Fleming Fellowship Scheme.

Reported results indicate that workforce development targets were consistently exceeded across both phases of the programme. Training activities covered a wide range of roles, including laboratory staff, data analysts, surveillance officers and managers.

The Fellowship Scheme contributed to individual professional development and the formation of professional networks across countries and sectors. Workforce indicators primarily tracked outputs (numbers trained or supported) rather than longer-term retention or institutionalisation of skills, which are addressed separately under sustainability.

Figure 11: RF43 – Number of training attendances supported by Fleming Fund funding

Figure 12: RF44 – Number of active Fellowships



4.1.3. Governance and coordination indicators

Governance-related indicators tracked establishment and functioning of national AMR coordination and oversight mechanisms.

Indicators included measures of:

- existence of a national body responsible for AMR strategy and coordination;
- multisectoral composition of coordination mechanisms; and
- frequency of meetings or formal functioning criteria.

Performance against governance indicators was more variable than for laboratories and workforce development. In several countries, multisectoral coordination mechanisms were established or strengthened and met agreed criteria. In others, progress was partial or uneven, reflecting differences in political prioritisation, institutional mandates and cross-sector coordination capacity.

Governance indicators captured structural features rather than the effectiveness of coordination or influence on decision-making, which are examined under outcome-level findings.

Figure 13: RF47- Number of Fleming Fund countries where the national body in charge of AMR strategy meets a minimum of twice per year

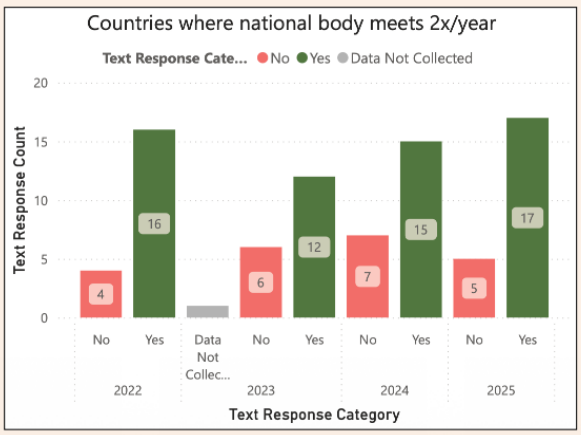
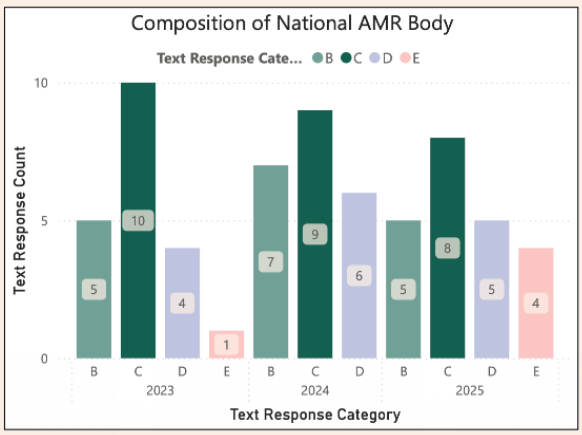


Figure 14: RF46 – Composition of the national body in charge of AMR strategy (multisector and One Health collaboration/coordination) in Fleming Fund-supported countries



4.2 EQ1: Generation of quality data (IO1), data analysis (IO2) and data sharing (IO3), and EQ5: International sharing

This annex provides the detailed quantitative and qualitative evidence underpinning the findings on intermediate outcomes presented in Section 4.2 of the main report. It documents trends in data generation, quality, analysis and sharing across sectors, and summarises evidence from Results Framework reporting, global platforms and country case studies.

The annex is intended to support transparency and technical scrutiny and should be read alongside Section 4.2, which presents the evaluative synthesis.

4.2.1. Data generation

AMR data generation

AMR data generation was a core objective of the Fund from the outset. Since 2018, output has increased substantially, though progress has varied by sector and country. Overall, results met or exceeded MA targets for all years.

HH showed the largest gains – all countries increased AMR data generation, but progress was uneven and year-to-year fluctuations were common[19] (see Figure 15 for overall sample generation by sector and Figure 18 for HH sample generation by country). There was substantial growth in the volume of AMR samples processed at Fleming Fund-supported HH surveillance sites between 2018 and 2025.

- Cumulative sample volumes exceeded **6.9 million**[20], with annual volumes increasing from 149,000 in 2020 to 897,000 in 2022 and 2.138m in 2025 (see Figure 15).
- Across Fleming Fund countries, sample generation increased from a low baseline to more than six-fold in Phase 1 (2020–2022) and doubled again in Phase 2 (2022–2025).
- Initial increases in reported data volumes were partly associated with expansion in the number of reporting sites. During Phase 2, however, site numbers stabilised in most countries, indicating that subsequent growth primarily reflects increased throughput at existing sites rather than continued site expansion.
- Despite these gains, because site distribution was intentionally and necessarily concentrated in tertiary and urban facilities in many countries, there are implications for the representativeness of the data and its utility at national level (although data was still used at, and informed improved policies and practices at, facility level).
- Overall country-level evidence indicates that increases in sample volumes were driven by: improved laboratory functionality and uptime; expanded routine testing; strengthened referral networks; and increased clinician confidence in laboratory services.
- In countries where surveillance was weak before Fleming Fund support,[21] results took longer to emerge but then grew rapidly. Senegal, for example, only began reporting samples from Fleming Fund sites in 2023, but recorded a more than four-fold increase by 2025.
- Countries with more established systems also made major gains: Nepal and Pakistan increased sample volumes by more than 15 fold and 21 fold respectively between 2020 and 2025.
- By contrast, Nigeria saw more modest growth, reaching around 104,000 samples in 2025, despite already having a moderately mature surveillance system in place.

AH AMR sample volumes were lower than in HH and exhibited greater year-to-year variability. This reflects the programme's early reliance on active surveillance (conducted through periodic sampling rounds rather than continuous routine testing), and with fewer sites supported.

- Total AH AMR sample volume increased substantially over 2020–25, though trends varied by country depending on: the mix of active versus passive surveillance; livestock sector coverage; institutional arrangements for veterinary laboratories; and availability of operating budgets.

[19] Some countries did not start generating data until Phase 2 (Ghana in 2023; Rwanda in 2024). For example, COVID-19, disease outbreaks, inconsistent supply of consumables (for various reasons, sometimes due to lack of continuity of FF grant support)

[20] 6,935,377 stated as grant total in MA dashboard; individual year totals add up to 6,938,121

[21] WHO GLASS (2019), Global Antimicrobial Resistance Surveillance System (GLASS) Report Early implementation 2017-2018

- Most countries increased active AH surveillance sample generation from baseline, but trends were less consistent in some countries (see Figure 15 for overall sample generation by sector; Figure 19 for AH sample generation by country (all sample types; Figure 20 for AH sample generation (active samples), Figure 21 for AH sample generation (passive samples) and Figure 22 for AH sample generation (other samples).
- AH active sample generation from direct Fund support was 114,000–125,000,[22] a more than 11-fold increase from 2020 to 2025. Growth after 2021 was more modest, with expected fluctuation as active surveillance is conducted in rounds.
- Overall increases from baseline were more modest in some countries, Nigeria increased 10-fold from 406 samples in 2020 to 4,145 in 2021, but then dropped back down to 1,099 samples in 2025, with a similar trend in Pakistan.
- Passive surveillance was not initially a focus of Fund support,[23] reflecting both lack of international guidance on the subject at the start of the Fund's operation and a strategic choice, given the weakness of passive surveillance in most AH labs.[24] Passive surveillance is important for sustainability, especially considering most countries had very limited AH AMR data/national AH surveillance systems in place prior to the Fund.[25]
- In countries that introduced or expanded **passive surveillance**, AH AMR data volumes were less variable: passive surveillance accounted for a significant share of total samples generated at Fleming Fund sites in 12 countries[26], but passive surveillance remained limited in scale in most other countries at endline/by 2025.
- Year-to-year fluctuations in active and passive sample generation largely reflect that active surveillance is done in defined rounds, and that passive surveillance sampling rises in response to disease outbreaks.

Environmental health and food safety surveillance were introduced later in the programme period, but reported AMR data generation showed rapid expansion once Fund-supported activities commenced in 2024 (see Figure 15 for overall sample generation by sector).

- Environmental health (EH) and food safety began reporting in Q2 and Q3 2024 respectively. These domains remain smaller in scale than HH surveillance and are characterised by shorter implementation timelines and fewer participating sites.

[22] MA dashboard states overall total of active samples as 114,631; total over all years adds up to 124,366.

[23] While, in practice, capacity-building activities in AH labs would be applicable to both active and passive surveillance samples that were submitted to the labs. And, following requests from labs and an awareness that public health was not a major priority for AH labs, the Fund's focus shifted to support general bacteriology skills to enable identification of any bacteria rather than just those of human interest. In Phase 2, AMROH grants were asked to support passive surveillance and to raise its profile.

[24] Also recognising that the focus of the Fleming Fund was on human pathogens and many of these are not considered major issues in AH, hence not as applicable to passive surveillance approaches.

[25] Known exceptions to this include Kenya, which had ongoing passive surveillance in place prior to 2018 (https://icap-aws-bucket.s3.amazonaws.com/icapcolumbiau/wp-content/uploads/pages-ICAP-Eswatini_Report-002.pdf) ; and pilot active sampling in Vietnam (https://pmc.ncbi.nlm.nih.gov/articles/PMC8298034/)

[26] Passive sample numbers made up the biggest proportion of samples over the full FF period in Bhutan, Indonesia, Kenya, Laos, Nepal, Pakistan, PNG, Rwanda, Uganda and Zambia, and were higher than active sample numbers in Tanzania and eSwatini; Other sample numbers (which include research samples) were also larger than active sample numbers in eSwatini, Indonesia, Nigeria, Tanzania, Vietnam and Zambia.

- In EH, more than 18,000[27] samples were generated, with volume steady in 2025.
- In food safety, 53,000–55,200[28] samples were generated, with volume increasing by around 50% from Q3 to Q4 2025.

Figure 15 Overview of sample generation at Fund-supported sites in different sectors, 2020–2025

	2020	2021	2022	2023	2024	2025	Trends Over Time
HH	149,468	785,597	896,646	1,137,427	1,828,123	2,138,126	
AH Active	3,281	20,839	29,564	13,194	20,302	36,451	
AH Passive	8,020	26,395	30,001	41,761	38,422	34,770	
EH	0	0	0	0	5,914	12,542	
Food Safety	0	0	0	0	11,901	41,878	
Sample Generation Comparison across Sectors 2020-2025							

Source: MA site-level reporting

Average sample throughput per laboratory per day presents a more cautious picture than total sample volumes alone. Endline data show that HH throughput increased strongly overall, but AH throughput remained much lower and more uneven, and in both sectors many laboratories are likely to be operating below their potential capacity.

- This matters because low throughput can affect both the efficiency and the sustainability of laboratory operations. Where sample flow is low, laboratories may struggle to maintain staff skills, make efficient use of equipment and consumables, and justify the costs of some high-end/automated lab equipment.
- HH throughput improved substantially, suggesting stronger routine use of supported laboratory capacity in a growing number of countries, Average throughput in Fund countries increased from five samples per day per lab in 2020 to 18 in 2024, extrapolated to 30 in 2025 (assuming the trend from January to July continued for the remainder of the year).[29] However, performance remains uneven, and throughput at laboratories in some countries, e.g. in Laos, Sierra Leone and Malawi, remained low at an average of four to seven samples per day per lab (see Figure 23).

[27] MA dashboard total states 18,456; year on year totals from 2024-2026 comes to 18,779

[28] MA dashboard total states 53,779; year on year totals from 2024-2026 comes to 55,128

[29] Averages across all countries are calculated based on the number of countries reporting in each year. E.g. in 2018, in HH 16 countries were reporting/used as denominator; in 2025, 21 countries were reporting/used as denominator.

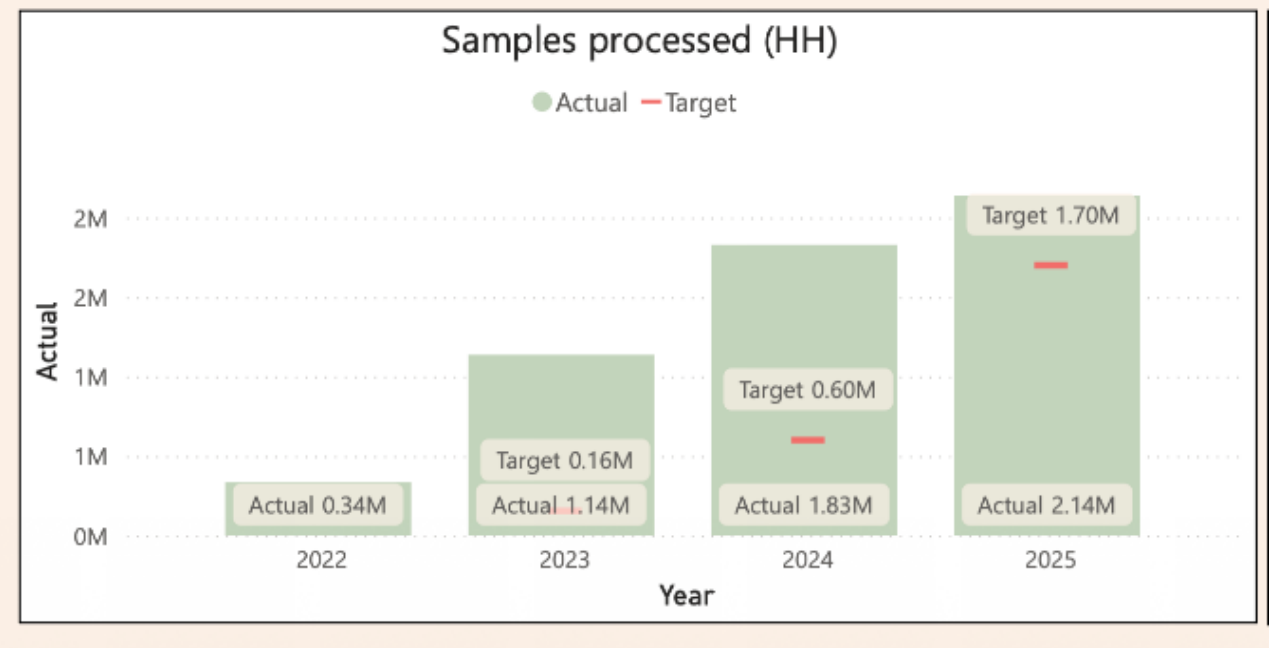
- AH throughput remained low in most countries with spikes over time. The average increased from two in 2020 to three in 2024 and 2025. Although sample throughput did increase over time (and was marginally boosted where EH and food safety samples started to also be processed at AH labs from mid-2024), throughput in AH laboratories remained low. Again, there was substantial variation across laboratories and countries, with Tanzania and Kenya processing an average of 6–10 samples per day per lab, but Papua New Guinea, Zambia and Laos processing an average of less than two samples per day per lab (see Figure 24).
- These figures are challenging to interpret so should be interpreted cautiously. Low throughput is a concern because laboratories are operating below available capacity, which could affect workforce (maintaining skills) and efficiency of laboratory operations (insufficient samples being processed to make use of automated equipment for processing ASTs and to justify associated costs). Throughput is shaped by a range of contextual factors, including testing demand, clinician engagement, referral pathways, surveillance design, population served, disease outbreaks, and whether sampling is routine and/or conducted in periodic rounds (e.g. active surveillance in AH); see Box 7 for the discussion presented in the 2024 Progress Report. Drivers are often very specific to different contexts and, where these require changes in behaviour, can be challenging to achieve.[30] Fleming Fund support placed limited emphasis on demand generation in Phase 1, and the extent to which it was able to make progress in this area during Phase 2 was limited by constraints on implementation time and replanning, as discussed in Vol 1.

Box 7: Drivers of sample throughput

A multitude of factors drive throughput, with variation across sectors, countries and sites, including: size of human/animal population; facility size; cost of ASTs and who pays (e.g. user fees – although it is to be noted that this is not unique to the Fleming Fund); lack of confidence by clinicians in laboratories (e.g. because of timeliness or reliability of results); availability of antibiotics; and norms and practices. In AH the specific active surveillance strategy will also have a significant bearing on laboratory throughput, owing to samples being collected in timebound rounds. Tackling these drivers would require a stronger systems focus (e.g. integrating AMR surveillance strengthening in broader initiatives to strengthen HH, AH and food production systems, such as engaging with health financing or health workforce or national procurement systems development).

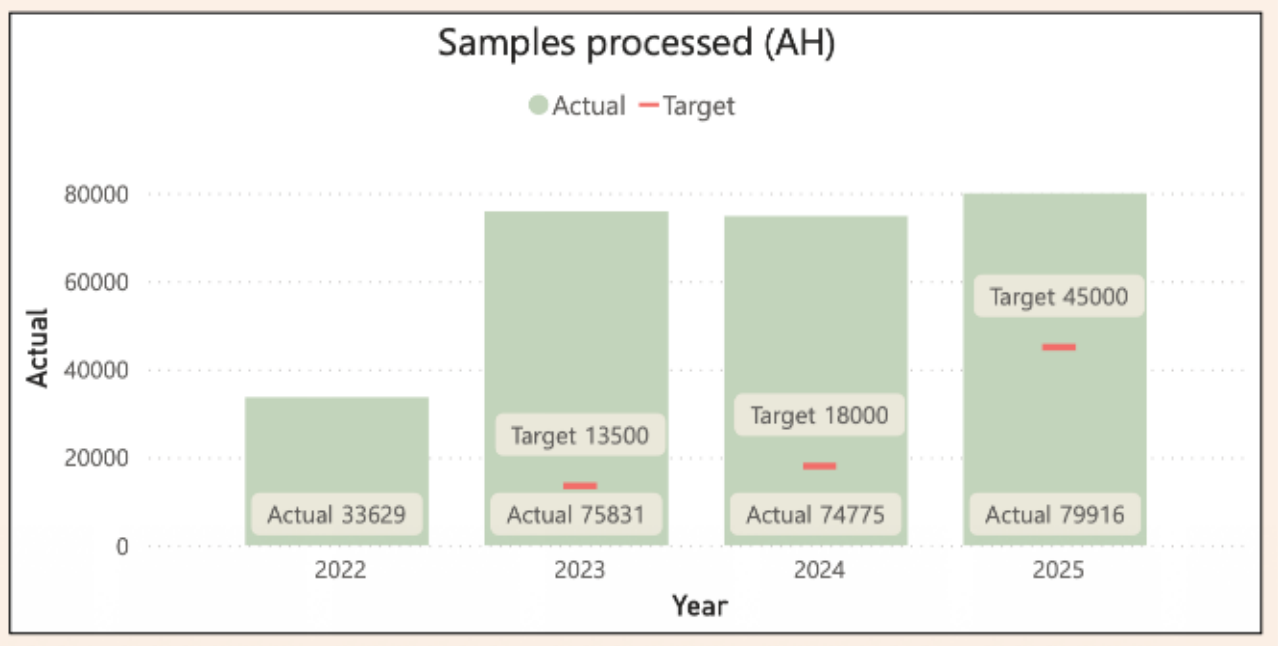
[30] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10230568/

Figure 16: Number of HH samples processed in each country in Fleming Fund-supported sites



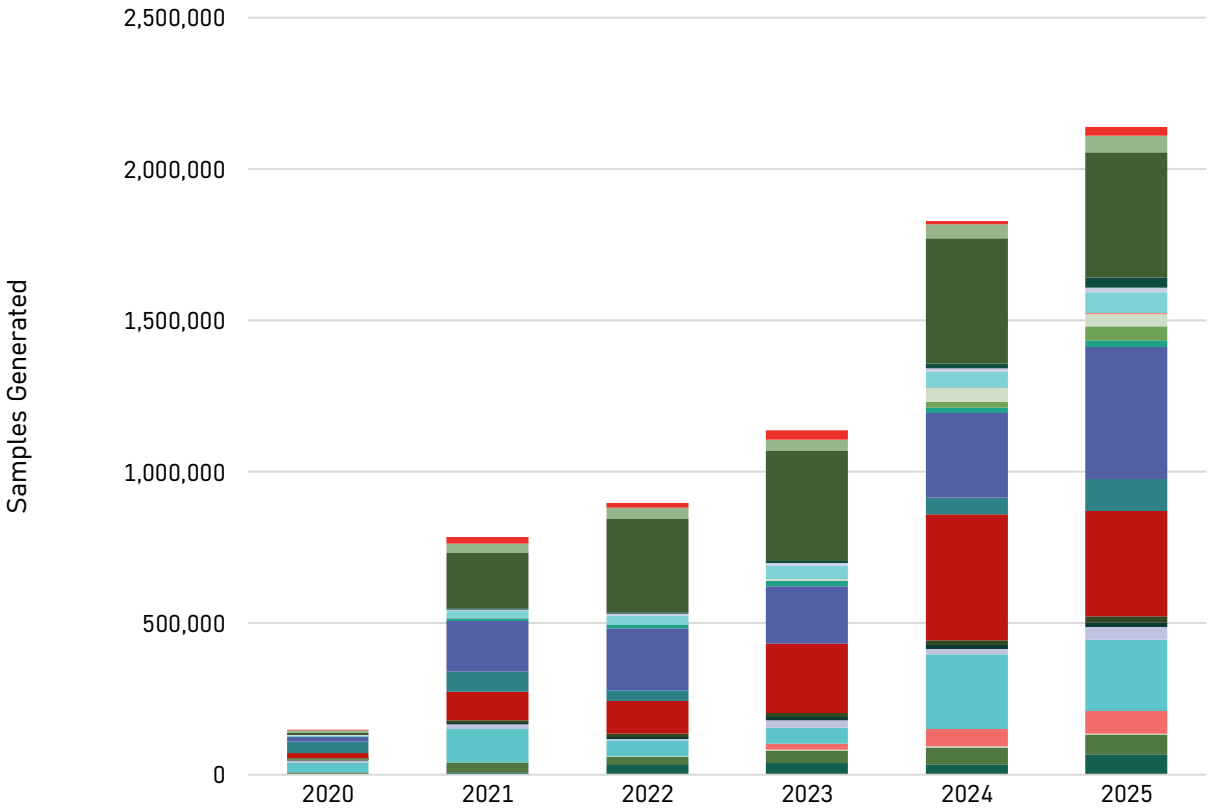
Source: Results Framework indicator #21

Figure 17: Number of AH samples processed in each country in Fleming Fund-supported sites



Source: Results Framework indicator #22

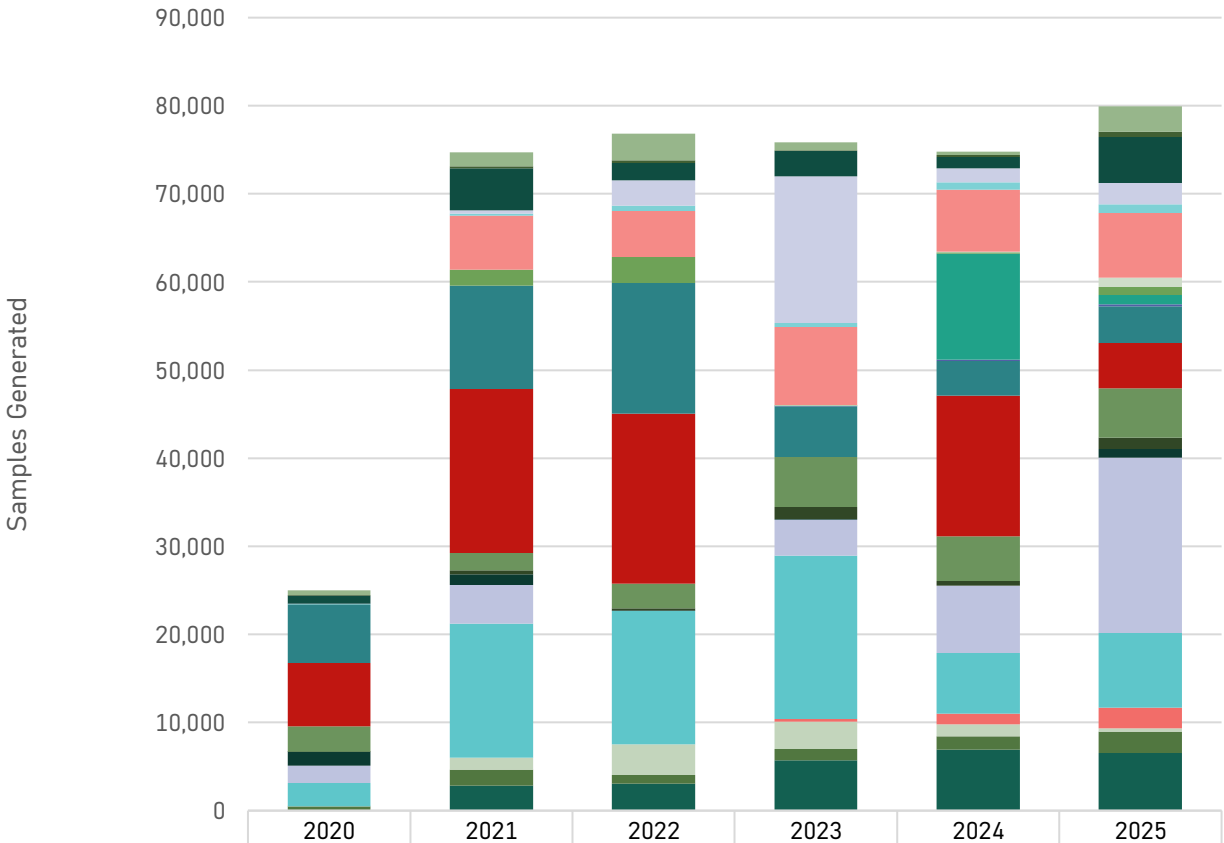
Figure 18: Human health samples generated in Fleming Fund-supported countries



	2020	2021	2022	2023	2024	2025
Zimbabwe	2,696	21,577	15,026	31,639	11,295	28,137
Zambia	9,802	30,802	36,693	37,056	45,645	55,310
Vietnam	4,947	183,374	308,428	363,950	414,318	414,258
Uganda	1,120	5,490	4,074	5,427	14,723	32,942
Timor-Leste	2,802	4,492	6,488	9,062	11,856	14,845
Tanzania	3,627	23,431	31,224	43,482	51,682	68,631
Sierra Leone	0	555	67	55	962	3,784
Senegal		0	0	8,029	45,095	40,619
Rwanda					21,336	46,007
Papua New Guinea		7,275	10,440	15,947	17,606	21,267
Pakistan	14,723	167,256	204,761	189,680	278,996	436,041
Nigeria	38,440	66,300	36,308		54,093	104,390
Nepal	17,583	95,758	106,791	228,518	416,941	349,792
Myanmar	4,367					
Malawi	1,217	8,657	12,413	13,667	15,111	18,171
Laos	826	5,057	6,564	10,791	12,488	15,713
Kenya	7,570	14,048	4,597	24,992	19,093	41,803
Indonesia	32,232	109,839	52,572	52,572	245,582	235,229
Ghana				20,717	57,075	74,656
Eswatini	0	763	2,513	3,330	4,742	5,192
Bhutan	7,516	32,276	26,112	38,846	54,683	62,872
Bangladesh		8,647	31,575	39,667	34,791	68,467

Source: MA site-level reporting

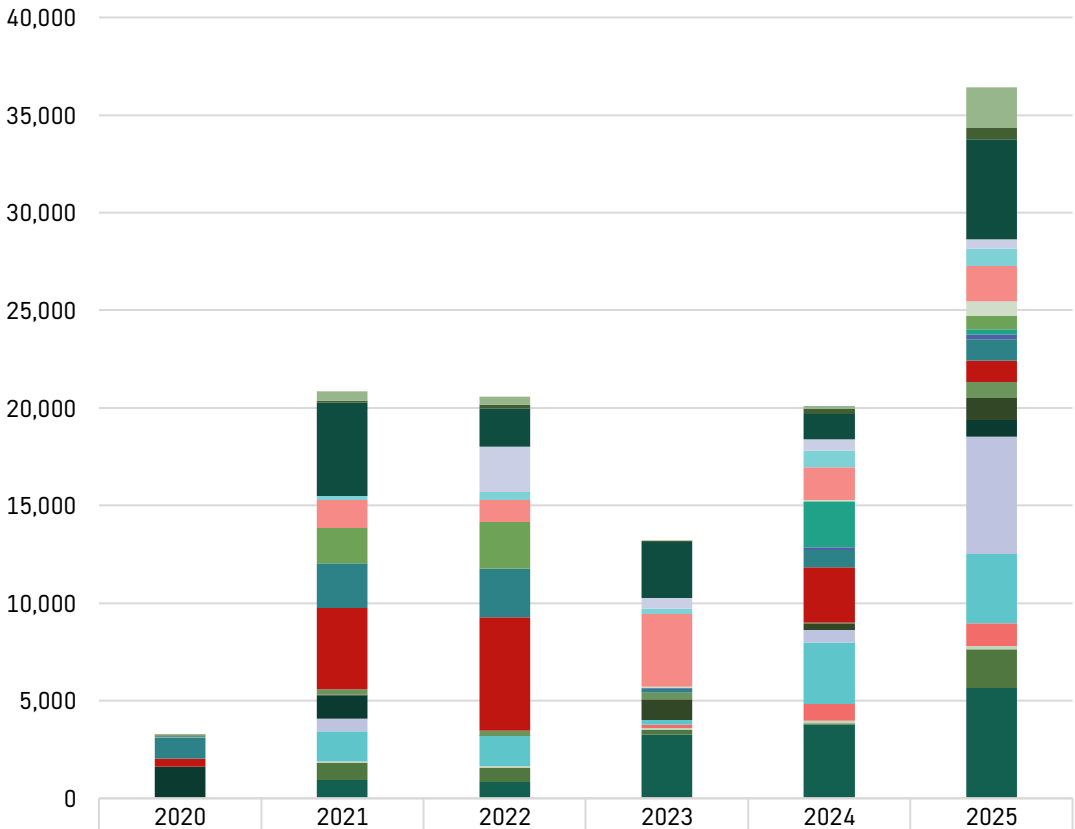
Figure 19: Animal health samples generated in Fleming Fund countries at Fund-supported sites (all sample types)



	2020	2021	2022	2023	2024	2025
Zimbabwe	542	1,577	3,038	864	346	2,855
Zambia	105	259	255	98	273	616
Vietnam	889	4,769	1,961	2,880	1,287	5,214
Uganda	20	382	2,885	16,658	1,545	2,431
Timor-Leste	19	241	597	427	859	941
Tanzania	0	6,084	5,276	8,854	7,032	7,362
Sierra Leone		0	0	83	65	1,061
Senegal		1,830	2,955	38	182	896
Rwanda					11,974	1,057
Papua New Guinea	0	0	0	39	166	229
Pakistan	6,704	11,714	14,823	5,742	3,945	4,209
Nigeria	7,168	18,643	19,265		15,975	5,110
Nepal	2,848	1,950	2,806	5,697	5,027	5,576
Malawi	31	449	214	1,316	533	1,349
Laos	1,620	1,207	60	100	0	957
Kenya	1,908	4,441	0	4,123	7,696	19,916
Indonesia	2,655	15,190	15,190	18,480	6,897	8,471
Ghana				296	1,198	2,325
Eswatini	20	1,313	3,466	3,116	1,332	404
Bhutan	487	1,820	966	1,318	1,501	2,421
Bangladesh		2,861	3,065	5,702	6,942	6,516

Source: MA site-level reporting

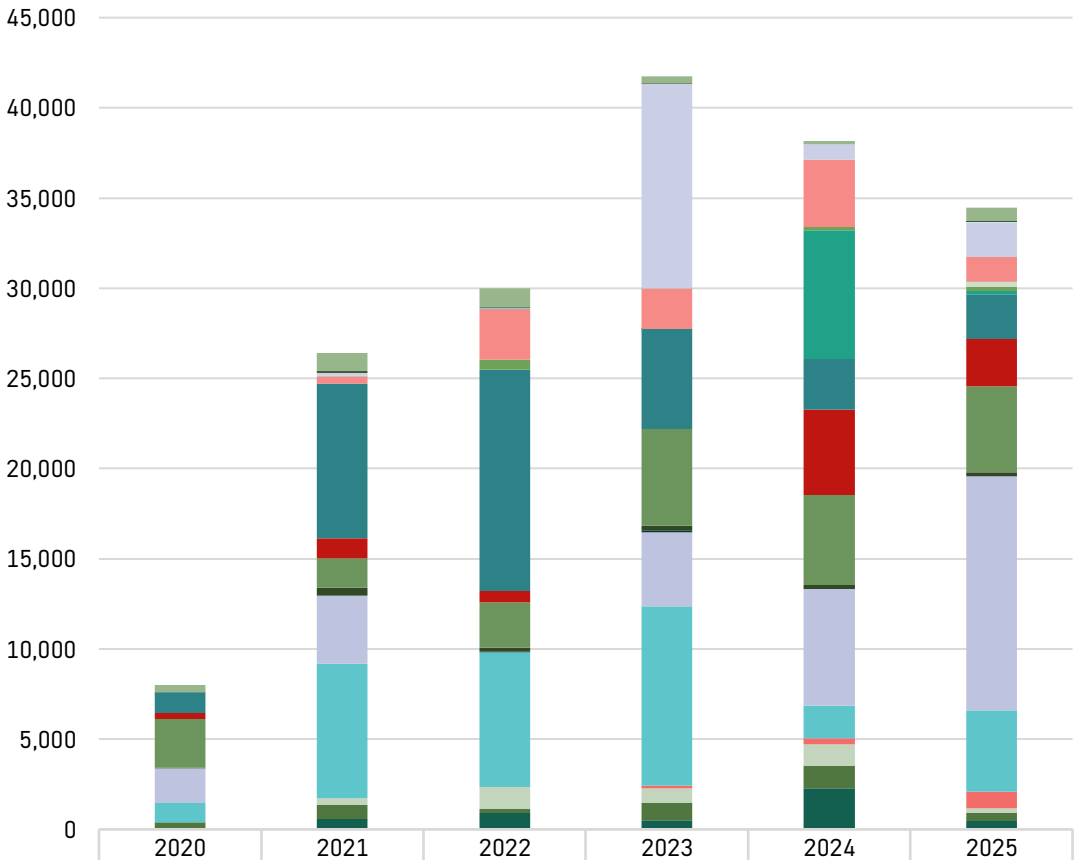
Figure 20: Animal health samples generated in Fleming Fund countries at Fund-supported sites (active samples)



	2020	2021	2022	2023	2024	2025
Zimbabwe	62	470	401	0	150	2,063
Zambia	76	114	186	55	273	605
Vietnam	0	4,769	1,961	2,880	1,287	5,102
Uganda	0	0	2,307	544	606	501
Timor-Leste	7	208	438	258	859	865
Tanzania	0	1,414	1,116	3,747	1,650	1,804
Sierra Leone		0	0	71	65	766
Senegal		1,830	2,400	0	0	673
Rwanda					2,351	289
Papua New Guinea	0	0	0	31	166	229
Pakistan	1,110	2,288	2,489	189	886	1,081
Nigeria	406	4,145	5,800		2,831	1,098
Nepal	0	301	275	356	20	826
Malawi	0	24	14	1,056	331	1,113
Laos	1,620	1,207	0	0	0	883
Kenya	0	650	0	0	649	5,983
Indonesia	0	1,510	1,510	240	3,164	3,550
Ghana				179	855	1,193
Eswatini	0	73	127	72	142	143
Bhutan	0	882	694	254	50	1,989
Bangladesh		954	846	3,262	3,779	5,655

Source: MA site-level reporting

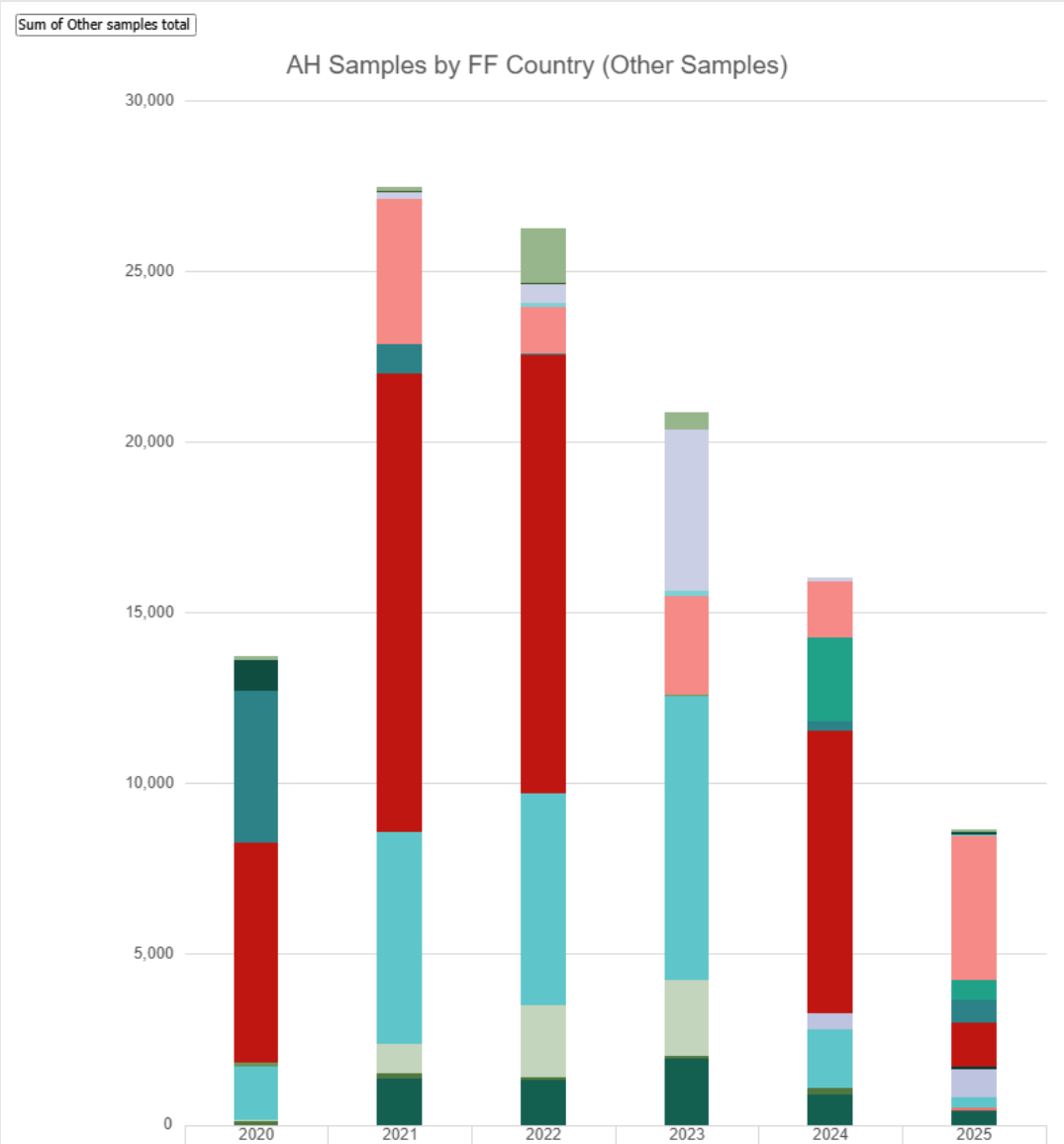
Figure 21: Animal health samples generated in Fleming Fund countries at Fund-supported sites (passive samples)



	2020	2021	2022	2023	2024	2025
Zimbabwe	380	981	1,043	376	196	736
Zambia	29	107	38	43	0	11
Vietnam	0	0	0	0	0	37
Uganda	0	169	17	11,357	848	1,930
Timor-Leste	12	33	59	6	0	26
Tanzania	0	415	2,804	2,231	3,735	1,336
Sierra Leone		0	0	0	0	295
Senegal		0	555	7	182	223
Rwanda					7,134	183
Papua New Guinea	0	0	0	8	0	0
Pakistan	1,134	8,566	12,270	5,553	2,816	2,475
Nigeria	346	1,082	623		4,724	2,644
Nepal	2,708	1,649	2,531	5,341	5,007	4,746
Malawi	31	425	200	260	193	235
Laos	0	0	60	100	0	0
Kenya	1,908	3,791	0	4,123	6,489	12,995
Indonesia	1,095	7,461	7,461	9,948	1,816	4,497
Ghana				117	313	932
Eswatini	0	358	1,225	817	1,189	261
Bhutan	377	789	220	972	1,259	432
Bangladesh		569	895	502	2,275	458

Source: MA site-level reporting

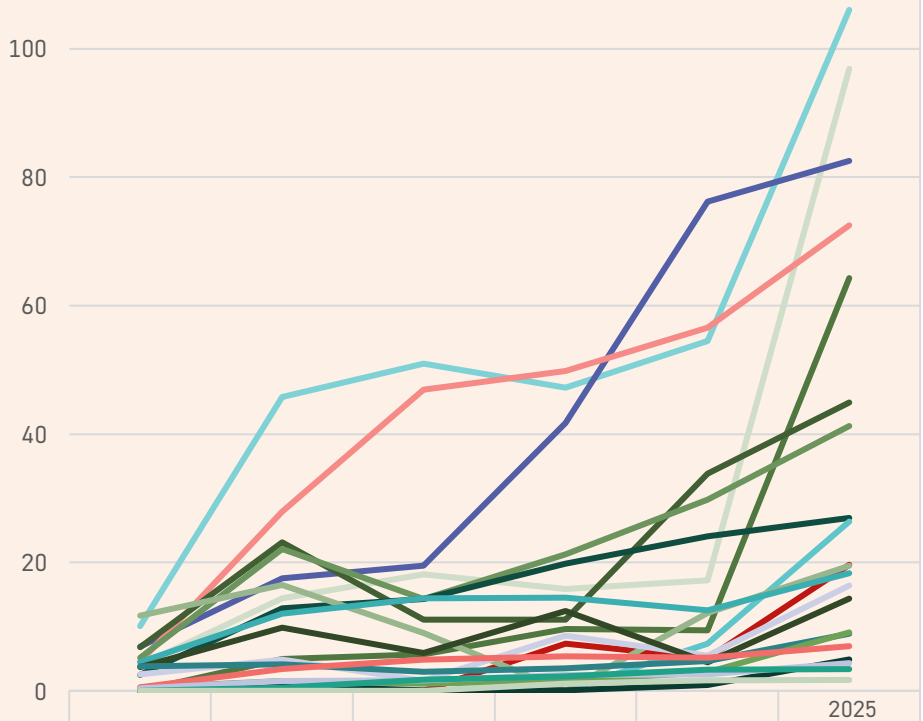
Figure 22: Animal health samples generated in Fleming Fund countries at Fund-supported sites (other samples)



	2020	2021	2022	2023	2024	2025
Zimbabwe	100	126	1,594	488	0	52
Zambia	0	38	31	0	0	0
Vietnam	889	0	0	0	0	75
Uganda	20	213	561	4,757	91	0
Timor-Leste	0	0	100	163	0	50
Tanzania	0	4,255	1,356	2,876	1,640	4,221
Sierra Leone		0	0	12	0	0
Senegal		0	0	31	0	0
Rwanda					2,489	585
Papua New Guinea	0	0	0	0	0	0
Pakistan	4,460	860	64	0	239	648
Nigeria	6,416	13,416	12,842		8,287	1,302
Nepal	140	0	0	0	0	0
Malawi	0	0	0	0	6	0
Laos	0	0	0	0	0	74
Kenya	0	0	0	0	471	828
Indonesia	1,560	6,219	6,219	8,292	1,717	302
Ghana				0	0	95
Eswatini	20	882	2,114	2,227	1	0
Bhutan	110	149	52	92	189	0
Bangladesh		1,338	1,324	1,938	888	403

Source: MA site-level reporting

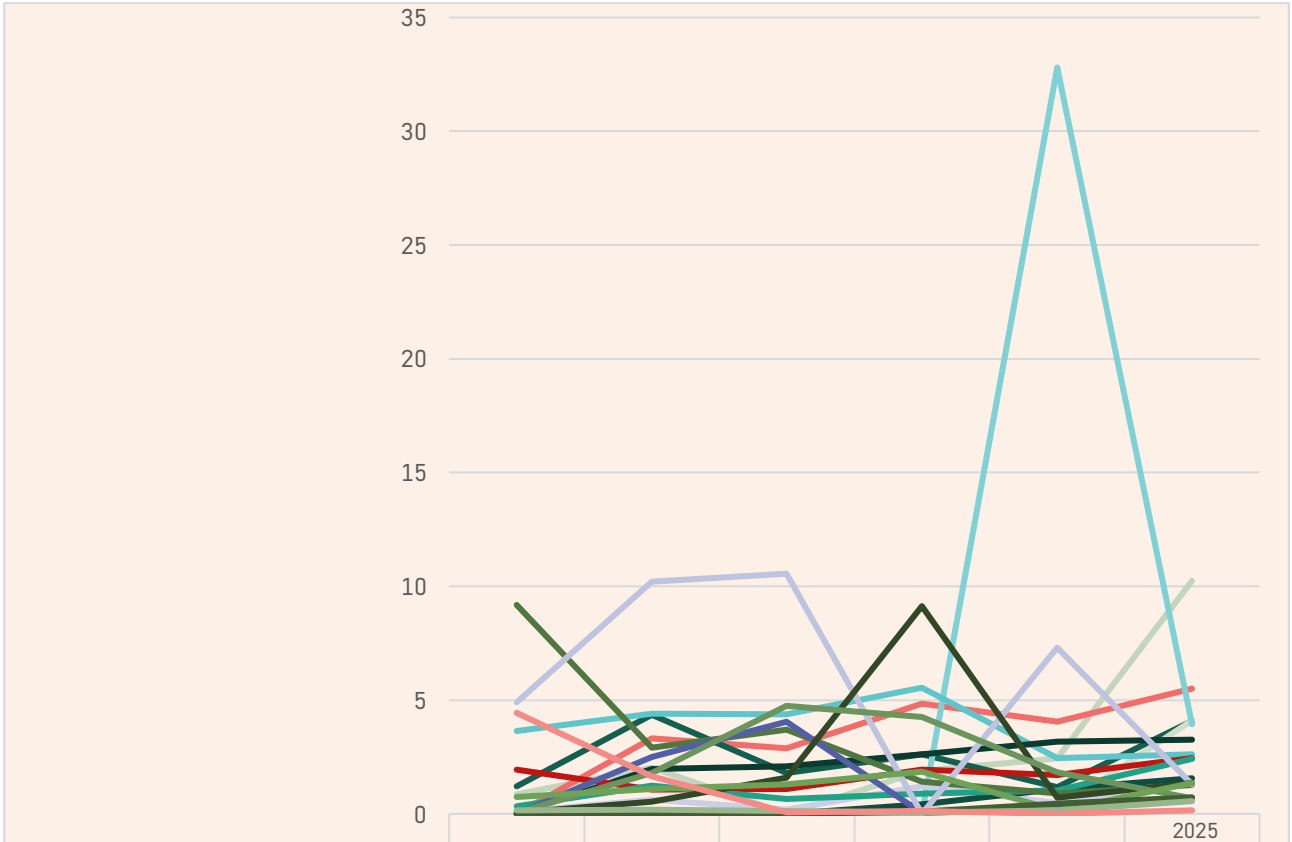
Figure 23: Human health sites average sample throughput per lab per day (all Fund countries), with data table



	2020	2021	2022	2023	2024	2025 (extrapolated full year)
Average in FF Countries reporting	5	12	12	14	18	33
Pakistan	10	46	51	47	55	106
Bangladesh	4	14	18	16	17	97
Nepal	7	17	20	42	76	83
Vietnam	5	28	47	50	57	73
Papua New Guinea	0	5	6	10	9	64
Indonesia	7	23	11	11	34	45
Bhutan	5	22	14	21	30	41
Tanzania	2	13	14	20	24	27
Rwanda	0	0	0	0	7	26
Senegal	0	0	0	7	5	20
Nigeria	12	17	9	0	12	19
Zambia	4	12	14	15	13	18
Kenya	3	5	2	9	6	16
Zimbabwe	4	10	6	12	4	14
Timor-Leste	4	4	3	4	5	9
Uganda	1	2	1	1	3	9
Malawi	1	3	5	5	5	7
Sierra Leone	0	1	0	0	1	5
Laos	0	2	2	2	3	4
eSwatini	0	1	2	2	3	3
Ghana	0	0	0	1	2	2
Myanmar	6446					0

Source: MA site-level reporting

Figure 24: Animal health sites average sample throughput per lab per day (all Fund countries), including data table



	2020	2021	2022	2023	2024	2025 (extrapolated full year)
Average in FF Countries reporting	2	2	2	2	3	3
Kenya	1	2	0	2	2	10
Tanzania	0	3	3	5	4	6
Vietnam	1	4	2	3	1	4
Sierra Leone	0	0	0	0	0	4
Rwanda	0	0	0	0	33	4
Indonesia	4	4	4	6	2	3
Bangladesh	0	2	2	3	3	3
Malawi	0	1	0	1	0	2
Ghana	0	0	0	0	1	2
Nepal	2	1	1	2	2	2
Bhutan	0	1	1	1	1	2
Pakistan	9	3	4	1	1	1
Senegal	0	3	4	0	0	1
Nigeria	5	10	11	0	7	1
Uganda	0	1	2	9	1	1
eSwatini	0	2	5	4	2	1
Timor-Leste	1					
Zimbabwe	1	1	1	2	0	1
Papua New Guinea	0	0	0	0	0	1
Zambia	0	0	0	0	0	1
Laos	4	2	0	0	0	0

Source: MA site-level reporting

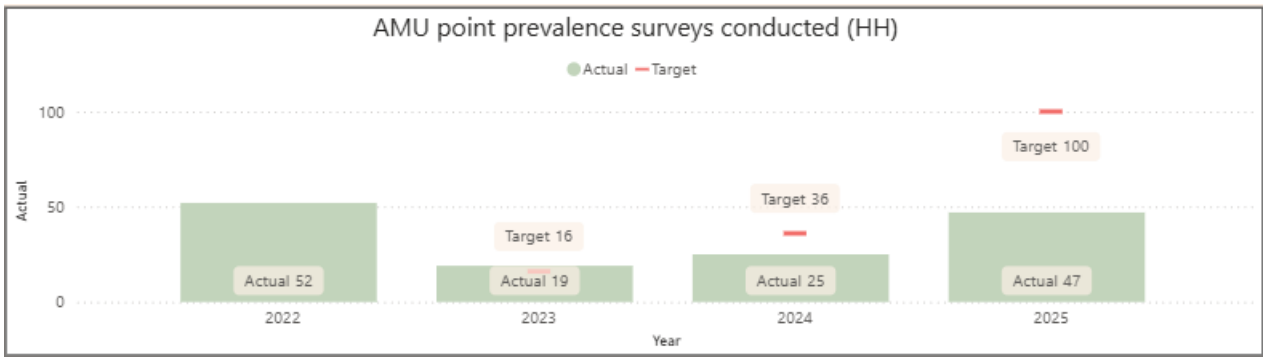
AMU and AMC data generation

AMU and AMC data availability across Fund-supported countries has improved since the Fund started to provide more consistent support in this area in Phase 2, but the increase in these data types has not been as significant as in AMR data.

In HH AMU, the number of countries completing point prevalence surveys (PPS)[31] increased from 12 in 2022 to all 22 in 2025. Whilst the number of actual surveys completed varied from year to year (see Figure 25 and Table 13), **it appears that there was progress over time.[32]**

- While more countries completed PPS over time, the number of surveys being supported by the Fund fluctuated in individual countries. Not all countries conducted PPS annually, and the number overall varied. This is consistent with WHO PPS methodology[33]; antimicrobial use point prevalence surveys should be conducted initially to establish a baseline and then repeated every few years for routine surveillance (although this can be more frequent depending on objective, e.g. for sentinel sites or those with active stewardship interventions recommendations are annually to monitor changes in prescribing practices). See Box 5, section 3.4.3, and Figure 5, section 4.1 for more information on target setting and results for PPS.
- It is important to note that other PPS may have been supported through domestic resources or other donors, and that the data below only reflects the PPS supported by the Fund.

Figure 25: Number of HH AMU PPS being conducted in Fund-supported countries



Source: Results Framework indicator #23.

In AH AMU, the number of countries that reported conducting farm-based AMU surveillance fluctuated between 2022 and 2025, with 19 countries reported conducting Fund-supported farm-level surveillance in 2022, decreasing to a low of nine countries in 2024 and then partially rebounding to 16 countries in 2025 (see Figure 26 and Table 13).

- AMU surveys were often conducted intermittently rather than routinely, coverage varied by species and production system and reporting gaps remained in several countries.

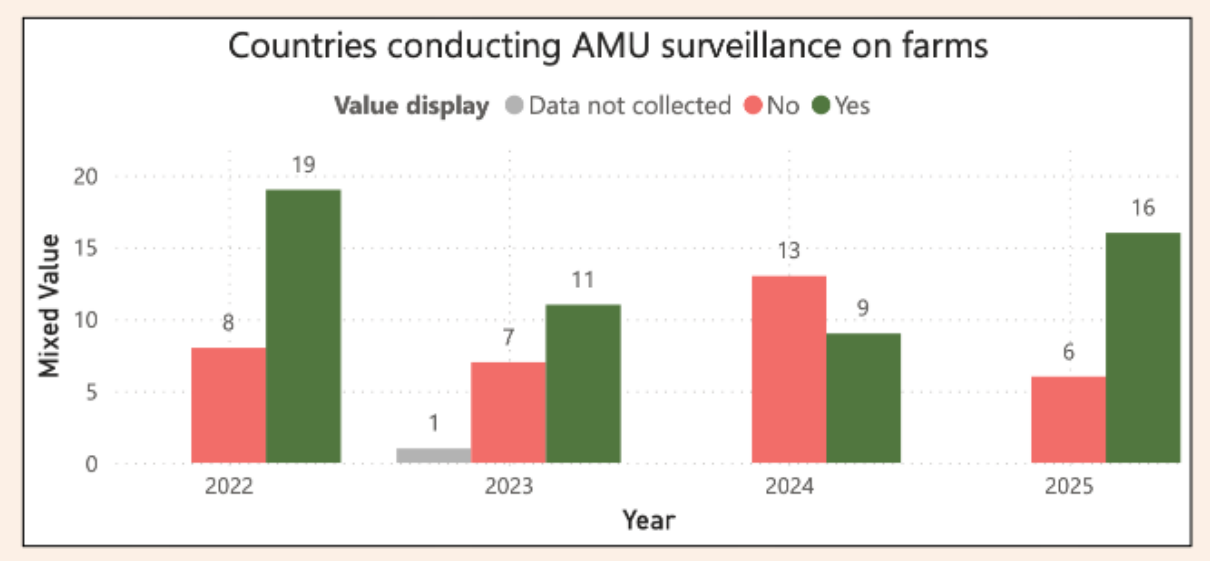
[31] The agreed measure of progress

[32] The MA team noted some inconsistencies in reported data and made retrospective changes to reported figures to address early-stage misreporting. This appears to account for the higher number of PPS in 2022 compared with subsequent years, with the emphasis being on progress over time. See section 4.1, Figure 5 for more details.

[33] https://www.who.int/initiatives/glass/glass-modules-8

- Active AMU surveillance remains resource intensive, and passive systems for routine AMU data collection were at an early stage of development in most contexts.

Figure 26: Number of Fund-supported countries conducting AH AMU surveillance



Source: Results Framework indicator #25

Table 13: Cross-country summary of AMU data for Fund-supported countries in HH (number of PPS being conducted – RF23) and AH (number of countries conducting AMU surveillance – RF25).

	HH				AH			
	Number of AMU PPS conducted for HH				Countries conducting surveillance for AMU on farms			
	2022	2023	2024	2025	2022	2023	2024	2025
Bangladesh	3	0	1	1	Yes	Yes	Yes	Yes
Bhutan	4	2	1	2	No	Yes	No	No
Eswatini	1	4	4	4	No	No	No	No
Ghana	1	0	0	3	Yes	Yes	Yes	Yes
INDONESIA	0		0	3	Yes		Yes	Yes
KENYA	1	7	1	4	Yes	No	No	No
Laos	4	6	1	2	No	Yes	No	Yes
Malawi	0	3	3	1	No	No	No	No
NEPAL	3	2	1	1	Yes	Yes	No	Yes
NIGERIA	0	Data not collected	1	1	No	N/A	No	Yes
PAKISTAN	18	0	0	1	Yes	No	No	Yes
PNG	0	1	1	2	No	Yes	No	Yes
Rwanda			0	3			No	Yes

Senegal	0	0	1	2	Yes	No	Yes	Yes
Sierra Leone	0	1	0	1	No	No	Yes	Yes
Sri Lanka			0	1			No	No
Tanzania	1	2	3	2	Yes	Yes	Yes	Yes
Timor-Leste	12	0	0	2	Yes	Yes	Yes	Yes
Uganda	2	12	2	4	Yes	Yes	Yes	Yes
Vietnam	0	2	1	1	No	No	No	No
Zambia	1	6	3	4	Yes	Yes	No	Yes
Zimbabwe	1	0	0	2	Yes	Yes	Yes	Yes
TOTAL	**52**	**19**	**24**	**47**	**12**	**11**	**9**	**16**

Source: Results Framework indicators #23 and #25

Routine national-level AMC data remained limited in many countries by 2025. In the 12 mid-term sample countries in mid-2024, at least nine had made progress in generating HH AMC data, and 12 had made progress in AH AMC data. At endline, all five countries sampled had increased AMC data production in HH and AH (see Table 14).

- Analysis by the evaluation team in 12 countries in mid-2024 showed that nine of these had made progress in generating AMC data in HH, and 11 had done so in AH.
- In our five summative case studies, all five had showed progression since mid-2024 and since baseline in both HH and AH.[34]
    - Assuming no backsliding had occurred in the other seven countries included in the 2024 Progress Report/at mid-term, eight out of those 12 sampled countries increased AMC data generation since baseline in HH, and all 12 did so in AH.
- Where AMC data existed, they were often derived primarily from import or sales data, rather than comprehensive consumption tracking across sectors. This limits the precision of AMC estimates and their use for stewardship decision-making.

Table 14 Cross-country overview of changes in AMC data production data from baseline to mid-point and baseline to endline for sampled Fund-supported countries in HH and AH **(2025/6 evaluation sample focus countries in bold upper-case)**

	AMC (HH)			**AMC (AH)**		
	Baseline (2022)	Mid-point (2023)	Endline (2025)	Baseline (2022)	Mid-point (2023)	Endline (2025)
Bangladesh			N/A			N/A
Ghana			N/A			N/A
INDONESIA						
KENYA						
Laos			N/A			N/A

[34] The Results Framework has no metrics on AMC data generation. Analysis is based on evaluation team data collection.

Malawi			N/A			N/A
NEPAL						
NIGERIA						
PAKISTAN						
Sierra Leone			N/A			N/A
Timor-Leste			N/A			N/A
Zambia			N/A			N/A

	None/no data/decrease
	No increase/flatline
	Some increase
	Considerable increase (three-fold or more)
N/A	Not available (country not sampled)

Source: Evaluation team data collection and analysis covering narrative country-level evidence coded from progress reports and KIIs

Burden of disease and economic data

From a zero baseline, progress in generation of burden of disease (BoD) data and data on the economic impact of AMR has been more limited, but was emerging in some countries by endline.

On BoD, evidence from the Results Framework indicates that the number of countries with standard BoD SOPs in place increased from zero in 2022 to eight countries in 2024 and 17 in 2025 (see Figure 27).

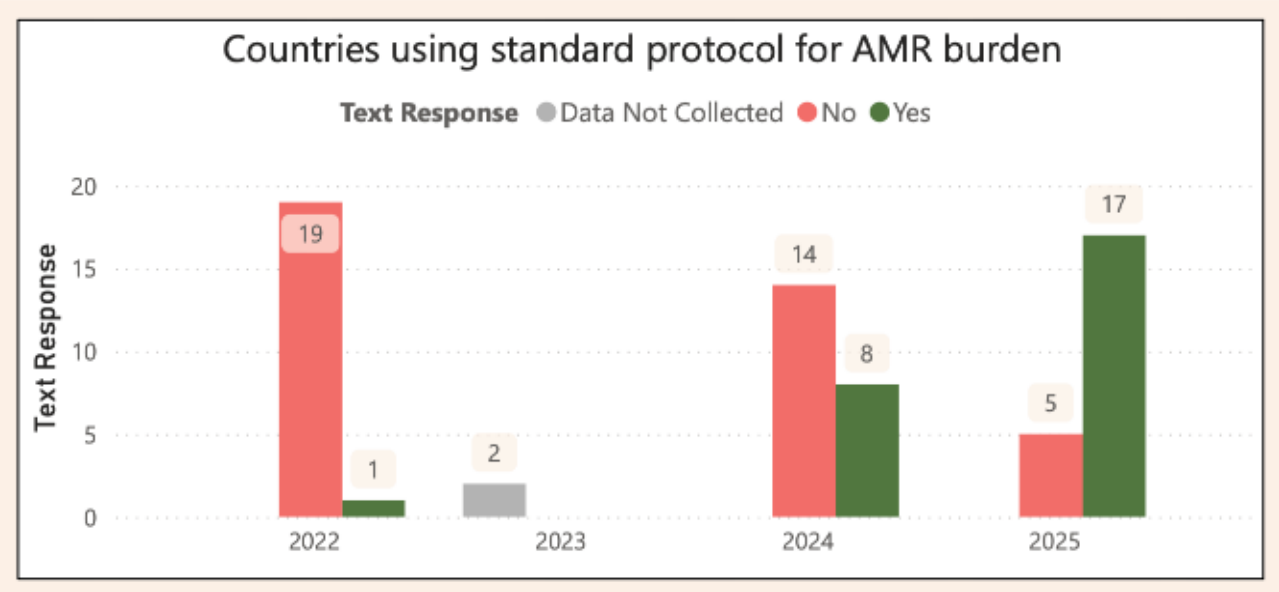
- Analysis conducted at endline indicates that three of the five sampled endline countries (Indonesia, Kenya and Pakistan) had increased production of BoDs (see Table 15).
- The Fund also supported GRAM to model the disease burden attributable and linked to AMR, which has proved influential in making the case for AMR action.

On economic data around the impact of AMR, country-level data collection at endline indicates that two countries (Indonesia and Pakistan) had produced economic data/reports for use by policymakers by the end of Phase 2 (see Table 15).

- Qualitative insights suggest a missed opportunity to focus more on this, possibly due to an underestimate of the time needed for substantive discussion and dissemination for economic data outputs to be useful/applicable to key stakeholders.

- Evidence from RGs, CGs and DGs[35] suggests support to produce economic data was provided during Phase 2, including use of costing tools, TADEU support, and the EcoAMR series.

Figure 27: Number of Fund-supported countries using a standard protocol to measure AMR BoD



Source: Results Framework indicator #27

Table 15: Cross-country overview of progress in generating in BoD and Economic data from Baseline to Summative **(2025/6 evaluation focus countries in bold upper-case)**

	BoD			Economic data		
	Baseline (2022)	Mid-point (2023)	Endline (2025)	Baseline (2022)	Mid-point (2023)	Endline (2025)
Bangladesh			N/A			N/A
Ghana			N/A			N/A
INDONESIA						
KENYA						
Laos			N/A			N/A
Malawi			N/A			N/A
Malawi			N/A			N/A
NEPAL						
NIGERIA						
PAKISTAN						
Sierra Leone			N/A			N/A
Timor-Leste			N/A			N/A

[35] The Results Framework does not include an metric on availability of economic analysis

Zambia			N/A			N/A

	None/no data/decrease
	No increase/flatline
	Some increase
	Considerable increase (three-fold or more)
N/A	Not available (country not sampled)

Source: Evaluation team data collection and analysis covering narrative country-level evidence coded from progress reports and KIIs.

The Fund has made a vital or important contribution to most of the drivers of increased data availability. While we did not focus on the Fund's contribution to these results during this summative report phase, previous analysis[36] identified drivers of progress in generating quality data as the renovation of sites and provision of equipment, investment in the capacity of the workforce, AMR governance, and supporting laboratory quality assurance (QA) systems and processes.

4.2.2. Data quality

Systems to ensure that laboratories produce high-quality data have been progressively strengthened, suggesting that the quality of data has also improved; this is supported by results from EQA processes. Ensuring laboratories generate high-quality data is of utmost importance in the reliability, credibility and use of data generated.

The Fund tracks progress by looking at whether relevant systems are in place at the following proxy indicators:

- participation of national reference laboratories in EQA;
- accreditation status of bacteriology laboratories;
- site-level EQA performance; and
- availability and application of standard operating procedures (SOPs).

On all, there is evidence of progress during Phase 2, albeit based on data only available since 2024.

There is evidence of increases in the number of countries where NRLs participate in an EQA, and in the number of countries where the bacteriology laboratory of the NRL is accredited. Strong progress is evident in both HH and AH sectors: all countries' HH NRLs are participating in EQAs, and the large majority of countries' AH NRLs are doing so. Accreditation of NRL bacteriology laboratories is happening in more countries' NRLs in both sectors when comparing 2024 and 2025 performance, although fewer than half of countries are reporting positively. See Figure 28, Table 16 and Table 17.

[36] Phase 1 summative report, p9

Figure 28: NRL EQA participation (HH), NRL bacteriology lab accredited (HH), NRL EQA participation (AH), NRL bacteriology lab accredited (AH).

Source: MA Surveillance Tool questions B1.8 and B1.10 (HH), B3.14 and B3.16 (AH)

Table 16: HH NRL Participate in EQA/ Bacteriology Laboratory of the NRL accredited.

Human health		
	NRL participate in an EQA	Bacteriology laboratory of the NRL accredited

	2024 (S1)	2024 (S2)	2025 (S1)	2025 (S2)	2024 (S1)	2024 (S2)	2025 (S1)	2025 (S2)
Total #	15	22	19	19	6	8	8	8
West Africa	67% (2/3)	100% (4/4)	75% (3/4)	100% (3/3)	0% (0/3)	0% (0/4)	25% (1/4)	0% (0/3)
East & Southern Africa	100% (6/6)	100% (8/8)	100% (7/7)	100% (7/7)	50% (2/4)	50% (3/6)	50% (3/6)	57% (4/7)
South Asia	100% (3/3)	100% (5/5)	100% (4/4)	100% (4/4)	67% (2/3)	60% (3/5)	50% (2/4)	50% (2/4)
South East Asia	80% (4/5)	100% (5/5)	100% (5/5)	100% (5/5)	40% (2/5)	40% (2/5)	40% (2/5)	40% (2/5)

Source: MA Surveillance Tool questions B1.8 and B1.10 (HH)

Table 17: AH NRL participate in EQA/NRL accredited for bacteriology

Animal health								
	NRL participate in an EQA				NRL accredited for bacteriology			
	2024 (S1)	2024 (S2)	2025 (S1)	2025 (S2)	2024 (S1)	2024 (S2)	2025 (S1)	2025 (S2)
Total #	11	17	17	19	7	8	8	9
West Africa	100% (2/2)	100% (4/4)	100% (2/2)	100% (4/4)	100% (2/2)	50% (2/4)	50% (1/2)	50% (2/4)
East & Southern Africa	100% (4/4)	83% (5/6)	86% (6/7)	86% (6/7)	75% (3/4)	67% (4/6)	57% (4/7)	57% (4/7)
South Asia	100% (3/3)	100% (4/4)	100% (4/4)	100% (4/4)	33% (1/3)	25% (1/4)	25% (1/4)	25% (1/4)
South East Asia	67% (2/3)	100% (4/4)	100% (5/5)	100% (5/5)	33% (1/3)	25% (1/4)	40% (2/5)	40% (2/5)

Source: MA Surveillance Tool questions B3.14 and B3.16 (AH)

At site level, there is evidence in the majority of countries that more sites are participating in EQA schemes but the picture in terms of number of countries achieving better proficiency testing scores is more static (Figure 29 and Table 18), whereas 14/22 countries have more sites achieving acceptable EQA scores comparing the earliest data available (2024) with the most recent (2025): see Table 18 for details. These data are not disaggregated by sector.

Figure 29: Number of sites with acceptable EQA scores and Sites progressing with proficiency testing/EQA.

Source: Results Framework indicators #26 and #41

Table 18: Increases in number of sites with acceptable EQA scores, proficiency testing scores and participating in/providing EQA services

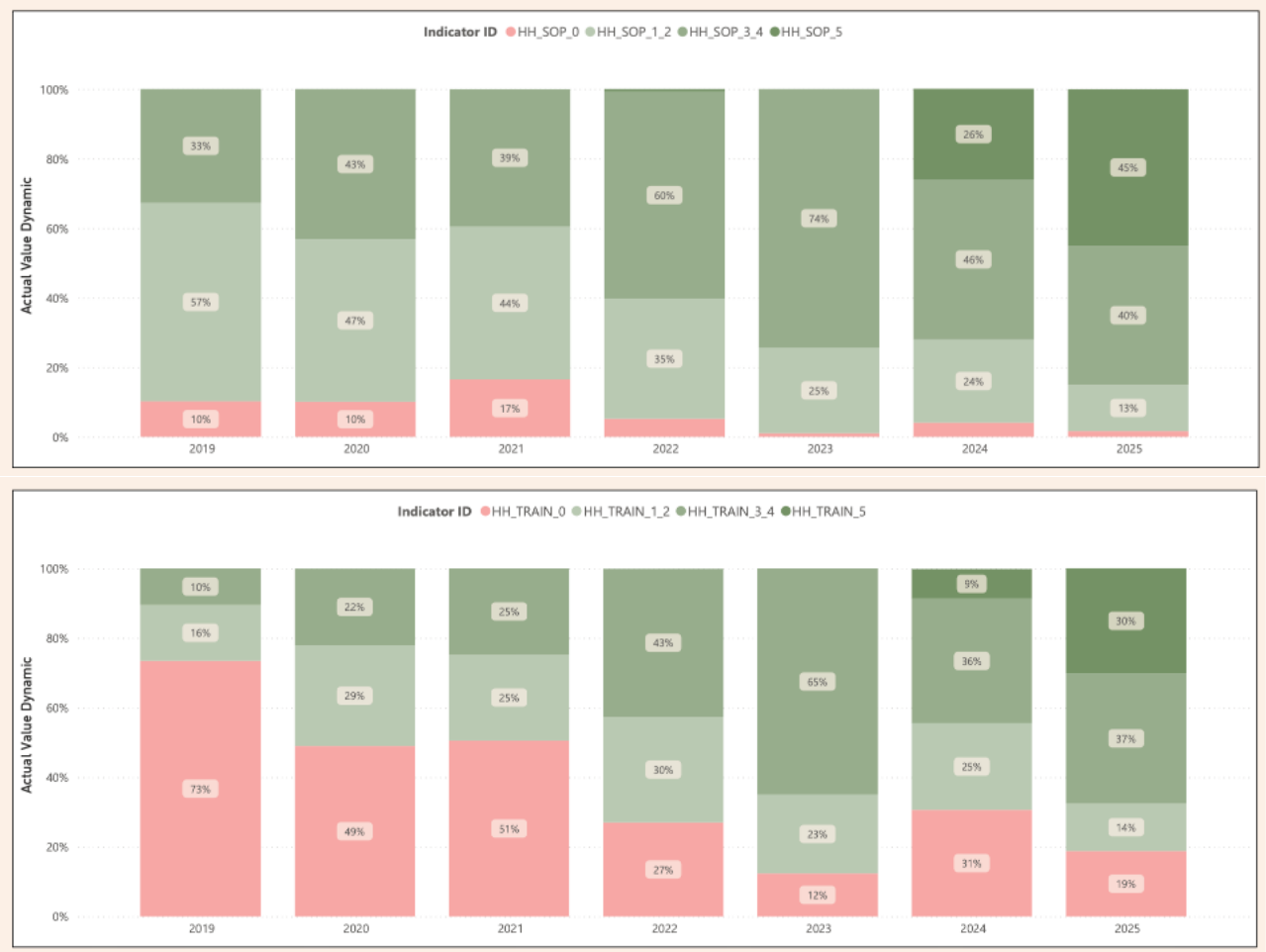
Country	Increase in # sites with acceptable EQA scores RF26	Increase in # sites progressing with PT scores RF41	Increase in # sites participating EQA scheme	Increase in # sites providing EQA to other sites
Bangladesh	Yes	Yes	Yes	Yes
Bhutan	Yes	No	No	No
Eswatini	Yes	No	Yes	Yes
Ghana	Yes	Yes	Yes	Yes
Indonesia	Yes	No	Yes	Yes
Kenya	Yes	No	Yes	Yes
Laos	No	No	Yes	No
Malawi	Yes	No	Yes	Yes
Nepal	No	Yes	Yes	Yes
Nigeria	Yes	No	Yes	Yes
Pakistan	Yes	Yes	Yes	Yes
PNG	Yes	Yes	No	No
Rwanda	No	No	Yes	Yes
Senegal	Yes	No	Yes	Yes
Sierra Leone	No	No	No	No
Sri Lanka	Yes	No	No	No
Tanzania	No	No	No	No

Timor-Leste	No	No	No	No
Uganda	Yes	No	Yes	Yes
Vietnam	Yes	Yes	No	No
Zambia	No	No	Yes	Yes
Zimbabwe	No	No	Yes	Yes

Source: Results Framework indicators #26 and #41 as well as MA Surveillance Tool questions 2a3 and 2a12 (HH), and B4.7 and B4.9 (AH).

Also at site level, there is evidence that the number of HH sites that have key SOPs in place is increasing in the majority of countries. Training in the full suite of these SOPs is not as common, however. Data from the AH sector show similar trends. This highlights the distinction between formal system adoption and action towards effective operationalisation. See Figure 30 and Figure 31 for more details.

Figure 30: HH SOPs and training



Source: Surveillance Tool, scoring sites against five key SOPs – clinician sample selection guidance (question 1a); sample transport SOP (question 3a1), clinician prescribing guidance using microbiology results (question 1d2), AST methods SOP (question 3d3); sample referral SOP (question 4c1). The training topics included: AMR surveillance (question 2a1); sample transport SOP (question 3a2), internal quality control processes (question 2a2), sample, organism and AST SOP (question 321); sample referral SOP (question 4c2). 'Yes, all staff' was used as the threshold for counting a site as trained.

Figure 31: AH SOPs and training

Source: Surveillance Tool, scoring sites against seven key SOPs – AMR-specific active surveillance sampling (question A2.1.2); sample receival (question A2.1.3); tools/guidelines for capturing demographic or epidemiological data when receiving a new sample (A2.1.4); internal quality control of sampling processes (question A2.1.5); sample transport in line with international biosafety standards (question A3.1); sample storage (B3.1.3); and sample referral to an AMR reference laboratory (question B5.1.5). Six training topics included AMR surveillance-specific SOPs (question A2.2.1), sampling procedures (question A2.2.2), data management (question A2.2.4), sample transport SOPs (question A3.2), sample processing, organism identification and AST SOPs (question B5.1.1), and sample referral (question B5.1.6).'Yes, all staff' was used as the threshold for counting a site as trained.

Table 19: HH and AH percentage of sites with key SOPs in place and training delivered on key SOPs

HH	% sites with key SOPs in place				% sites with training on key SOPs			
	2024 (S1)	2024 (S2)	2025 (S1)	2025 (S2)	2024 (S1)	2024 (S2)	2025 (S1)	2025 (S2)
5	19	33	44	47	6	10	23	37
3-4	48	44	38	42	36	36	39	36
1-2	27	21	17	10	29	21	15	13
0	7	2	2	1	28	33	24	14

AH	% sites with key SOPs in place			
	2024 (S1)	2024 (S2)	2025 (S1)	2025 (S2)
7	47	46	46	53
5-6	31	38	34	33
3-4	14	9	15	12

1-2	6	3	2	2
0	2	4	3	0
	% sites with training on key SOPs			
	2024 (S1)	2024 (S2)	2025 (S1)	2025 (S2)
6	19	18	41	49
4-5	2	32	26	24
2-3	23	11	6	14
1	3	14	10	0
0	32	25	18	13

Source: Same Surveillance Tool data as Figures 29 and 30, summarised by period (2024 S1 to 2025 S2)

4.2.3. Data analysis

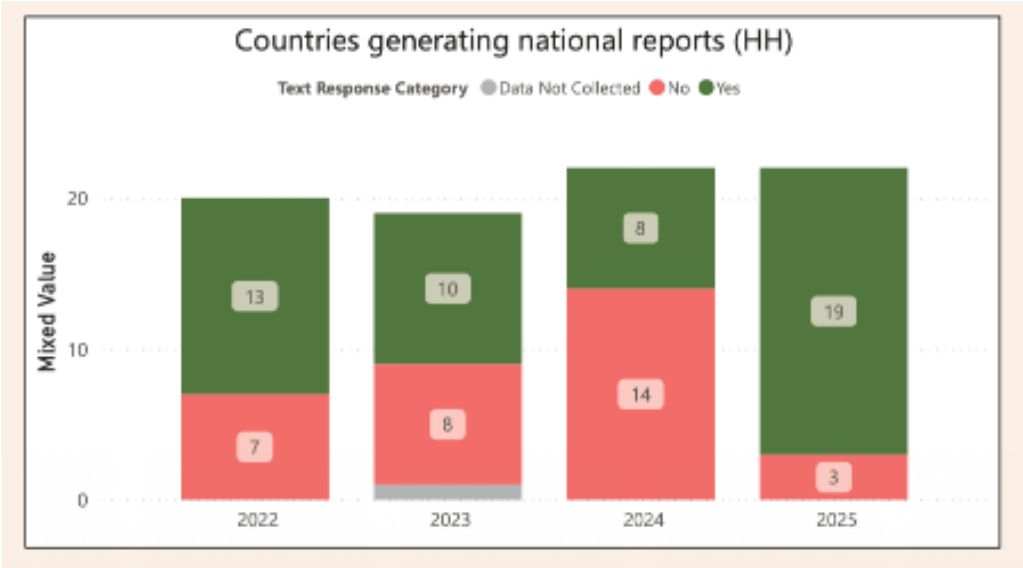
Since 2018, analysis of data has increased, reflecting a stronger focus on this in Phase 2. Increases vary across countries and sectors, with more analysis evident for AMR than for AMC and AMU.

Analysis of data generated was a key Phase 2 focus: Phase 1 built capacity to generate data, while Phase 2 focused more on converting data into national analysis and reporting. Overall performance against MA data analysis targets was met.[37]

Results Framework data for HH, AH and OH all showed an increase in the form of production of national reports/policy briefs. As with data generation, improvements in HH were largest, with 19 countries producing reports in 2025 compared to 18 for AH. By 2023, 16 countries reported that data were analysed and used by the AMR multisector coordination mechanism for decision-making purposes, compared to only three countries in 2024. Integrated One Health analyses were less common (14 countries produced reports integrating OH analysis in 2024) and were typically produced on an ad hoc rather than routine basis. (See Figure 32.)

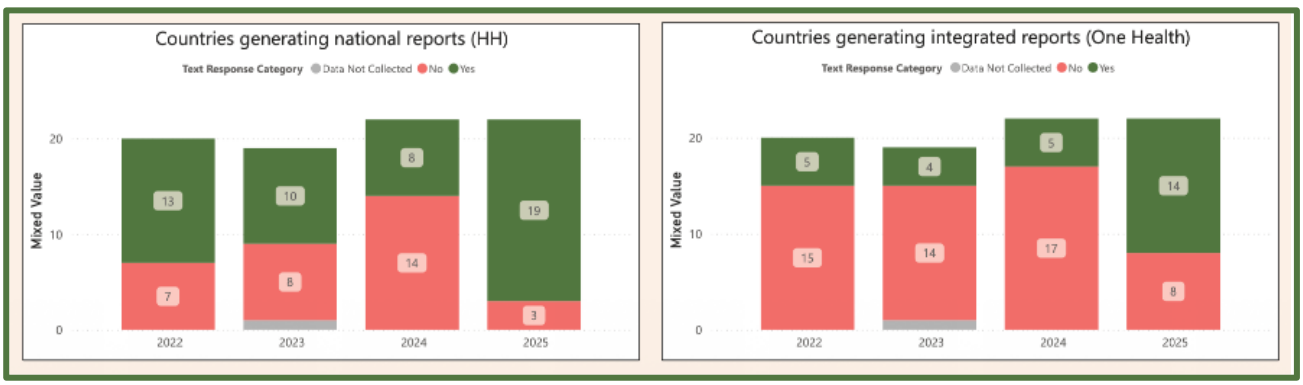
[37] In the Results Framework, progress is tracked through three indicators, each measuring whether countries produced at least one national annual report or policy brief on AMR, AMU or AMC in each sector. RF data available for Phase 2 only (2022–2025).

Figure 32: Number of countries generating national annual reports or policy briefs on AMR, AMU and/or AMC in animal health



Source: Results Framework indicator #28

Figure 33: Number of countries generating national annual reports or policy briefs on AMR, AMU and/or AMC in human health (RF29) and number of countries generating national annual reports or policy briefs on AMR, AMU and/or AMC using a One Health approach (RF30)



Source: Results Framework indicators #29 and #30

More limited and uneven progress in data analysis was identified in evaluation team analysis of global and country-level data. It suggests that AMR analysis remained stronger than AMC and AMU analysis in HH and AH, and analysis in EH and food safety lagged behind due to data generation in those sectors starting later. Country-level qualitative evidence consistently identified limited staff resources (in number and bandwidth) to conduct analysis; high data cleaning burdens; and limited automation as key constraints on deeper and more routine analysis, even where data volumes increased.

In HH:

- National data compilation improved significantly since baseline, from only three sampled countries compiling any AMR data at national level, to seven out of 12 sampled sites including all Fund-supported sites in national data compilation at mid-point/in 2023 (see Figure 35). At endline, there was no further improvement in national data compilation in the

sampled countries, with three out of five including all Fund supported sites in national data compilation: although it is worth noting that these often happen on annual cycles, so the evaluation might be out of sequence with countries who plan to do it but have not yet done so.

- The scope of analysis included in HH national AMR reports improved since baseline, as no countries were producing AMR reports at that stage. By mid-point, there was significant improvement in the scope of AMR analysis being included in reports, but more limited improvement in AMU and AMC data analysis (see Figure 34).
    - **For AMR analysis**, seven of the 12 sampled countries were including analysis of AMR resistance patterns based on compiled national data at mid-point/in 2023; three countries (Bangladesh, Pakistan and Zambia) were also including additional analysis, such as trends over time or trends in different sub-national regions. The reduced sample size at endline means it is not possible to judge if there was any improvement overall, but in the five endline sample countries, there was no further change.
    - **For AMU and AMC analysis**, only six of the 12 sampled countries at mid-point were including AMU analysis (examining Daily Defined Dose) in national reports. Bangladesh and Malawi were slightly more advanced and included analysis of trends over time in AMU data. At endline, Kenya had started to include basic AMU and AMC data in its national reports. There was no change in the other four sampled countries.

In AH:

- National data compilation improved significantly since baseline, from only one sampled country compiling any AMR data at national level, to ten out of 12 sampled sites including all Fund-supported sites in national data compilation at mid-point/in 2023 (Figure 34). At endline, there was no further improvement in national data compilation in the sampled countries, with three out of five, including all Fund-supported sites, in national data compilation. The scope of analysis included in AH national AMR reports improved since baseline, as only one country (Laos) was producing AMR reports at that stage. By mid-point, there was significant improvement in the scope of AMR analysis being included in reports, but more limited improvement in AMC data analysis (see Figure 35).
- For AMR analysis, seven of the 12 sampled countries were including analysis of AMR resistance patterns based on compiled national data at mid-point/in 2023; two countries (Bangladesh and Nepal) were also including additional analysis, such as trends over time or trends in different sub-national regions. The reduced sample size at endline means it is not possible to judge if there was any improvement overall, but in the five endline sample countries, there was no further change.
- For AMC analysis, seven of the 12 sampled countries at mid-point were including AMC analysis in national reports. Timor-Leste and Zambia were more advanced and included analysis of trends over time in AMU data. At endline, Indonesia and Kenya had started to include basic AMC data in their national reports. There was no change in the other three sampled countries.

- Strong examples of improved data analysis include Nepal and Kenya. In AMR data analysis in both countries, HH facilities prepared their own antibiograms and national actors compiled site-level resistance patterns, positivity rates, trend analysis of key antibiotic–pathogen combinations, In Kenya, the OH AMR dashboard is now public-facing and stakeholders can interact with trends. However, in both countries limitations were still flagged especially in more limited AMU and AMC data analysis in all sectors and in terms of OH analysis looking at linkages across sectors.
- Key factors that supported stronger analysis where it emerged included digitisation and automation of analysis of AMR data. These dramatically reduced the time taken for data cleaning and preliminary analysis and supported weekly outbreak alerts in several countries. More broadly, countries benefited from training, practical analytical tools, standardised guidance, technical support, and stronger platforms for sharing findings, including national Technical Working Groups (TWGs) and cross-sector forums.
- Improved analysis was linked to improved use of national data in several countries. Examples include in Nepal and Indonesia based on HH AMU data; in Pakistan based on AH AMR data; and in Kenya based on HH AMR data.

Figure 34 Cross-country summary of human health data analysis across sampled countries **(2025/6 evaluation focus countries in bold upper-case)**

KEY	AMR national data compilation (1)	AMR analysis scope (2)	AMU analysis scope (3)	AMC analysis scope (4)	BoD report/policy brief exists (5)
	No compiled national data	No report and/or analysis	No report and/or analysis	No report and/or analysis	No report and/or analysis
	Compiled data includes some sites	Basic (AMR resistance patterns only)	Basic (i.e. total AMU in defined daily dose (DDD) only)	Basic (i.e. total AMC in DDD per population)	Partial (e.g. in process but not yet finalised)
	Compiled data includes all sites	Additional analysis (e.g. trends over time)	Additional analysis (e.g. trends over time)	Additional analysis (e.g. trends over time)	Report/brief exists
N/A	Not available	Not available	Not available	Not available	Not available

Human Health	**AMR national data compilation (1)**			**AMR analysis scope (2)**			**AMU analysis scope (3)**			**AMC analysis scope (4)**			**BoD report/ policy brief exists (5)**		
	Did national aggregated data include all surveillance sites?			*What level of analysis was done at national level – none, basic or advanced (e.g. showing trends over time; national versus sub-national etc.)?*									*Was a national BoD report and/or policy brief produced ?*		
	Base-line (2022)	*Mid-point (2023)*	*End-line (2025)*	*Base-line (2022)*	*Mid-point (2023)*	*End-line (2025)*	*Base-line (2022)*	*Mid-point (2023)*	*End-line (2025)*	*Base-line (2022)*	*Mid-point (2023)*	*End-line (2025)*	*Base-line (2022)*	*Mid-point (2023)*	*End-line (2025)*
Bangladesh			N/A			N/A			N/A			N/A			N/A
Ghana			N/A			N/A			N/A			N/A			N/A
INDONESIA															

KENYA																
Laos			N/A			N/A			N/A			N/A			N/A	
Malawi			N/A			N/A			N/A			N/A			N/A	
NEPAL																
NIGERIA																
PAKISTAN																
Sierra Leone			N/A			N/A			N/A			N/A			N/A	
Timor-Leste			N/A			N/A			N/A			N/A			N/A	
Zambia			N/A			N/A			N/A			N/A			N/A	

Source: Results Framework indicators #28, #29, #30 plus narrative country-level evidence coded from progress reports and KIIs.

Figure 35: Cross-country summary of animal health data analysis across sampled **countries (2025/6 evaluation focus countries in bold upper-case)**

KEY	(1)	(2)	(4)
	No compiled national data	No report and/or analysis	No report and/or analysis
	Compiled data includes some sites	Basic (AMR resistance patterns only)	Basic (total AMC in DDD per kg only)
	Compiled data includes all sites	Additional analysis (e.g. trends over time)	Additional analysis (e.g. trends over time)
N/A	Not available	Not available	Not available

Animal health	**AMR compilation (1)** *Did national aggregated data include all surveillance sites?*			**AMR analysis scope (2)** *What level of analysis was done at national level – none, basic or advanced (e.g. showing trends over time etc.)?*			**AMC analysis scope (4)** *What level of analysis was done at national level – none, basic or advanced (e.g. showing trends over time etc.)?*		
	Baseline (2022)	*Mid-point (2023)*	*Endline (2025)*	*Baseline (2022)*	*Mid-point (2023)*	*Endline (2025)*	*Baseline (2022)*	*Mid-point (2023)*	*Endline (2025)*
Bangladesh			N/A			N/A			N/A
Ghana			N/A			N/A			N/A
INDONESIA									
KENYA									
Laos			*N/A*			N/A			N/A
Malawi			N/A			N/A			N/A
NEPAL									
NIGERIA									
PAKISTAN									
Sierra Leone			N/A			N/A			N/A

Timor-Leste			N/A			N/A			N/A
Zambia			N/A			N/A			N/A

Source: Results Framework indicators #29 and #30 plus narrative country-level evidence coded from progress reports and KIIs

4.2.4. Sharing of data analysis

There is evidence of increased sharing of AMR analysis at sub-national, national and international levels. The Fleming Fund has made a significant contribution to countries' ability to share AMR data at national and international level, and at sub-national level in HH, but with more limited progress in this contribution in AH at sub-national level.

4.2.4.1. National and sub-national sharing of data analysis

In facility-level sharing in HH, RF data[38] suggests that the number of HH sites sharing analysed data at local level increased from 134 in 2022 to 184 in 2025.

- Evidence from evaluation sample countries indicates that at least ten of the 12 countries sampled from mid-term were sharing analysed data at facility level (see Figure 36).
- Qualitative evidence shows multiple examples of facility-level sharing of AMR data (antibiograms) and AMU data analysis (PPS results) with clinicians, infection prevention and control (IPC) teams and antimicrobial stewardship (AMS) committees, including in all summative case study countries. This is routinely informing prescribing practices.

In local-level sharing in AH, progress was slow and mixed.[39] [40] Sharing of individual diagnostic data is routine, but mechanisms for sharing compiled surveillance data are less well developed. A relatively small number of countries (maximum nine) showed improvement in sharing data.[41] Only two countries (of 12 evaluation focus countries in 2023) showed evidence of compiled, analysed data[42] being shared back to practitioners: Malawi and Zambia. None of the five summative case study countries were sharing compiled AH analysis back to practitioners. See Figure 37 for details.

In national-level sharing of surveillance data, Results Framework data showed that the number of AMRCCs receiving data from Fund-supported surveillance sites at least once a year increased from 14 countries in 2018 to 19 countries end-2025, meeting agreed targets.

[38] The Results Framework measures the number of Fleming Fund supported human health sites where laboratory data is shared with clinical teams / infection prevention and control programmes, and/or anti-microbial stewardship (AMS) programmes, or guideline development groups (RF38).

[39] Sharing of individual laboratory results based on samples from sick animals submitted under passive surveillance was routine

[40] Local-level sharing in AH is less clearly defined than in HH, since practitioners are not based on-site with testing laboratories and, in active surveillance, animals are generally not presenting with disease.

[41] Noting that this indicator includes both local and international sharing, and that disaggregation between local and international level is not possible, for AH there is also evidence of the extent to which AH sites have 'guidelines in place for sharing results with the sample source' (B6.3.3). This shows that 9/22 countries have increased the number of sites with such guidelines in place and 6 more have guidelines in place in some sites but have not reported increases in the number of sites with such guidelines.

[42] Compiled data means data from AH surveillance activities being compiled into an antibiogram at sub-national level (e.g. for county or region), and those results shared back to practitioners in that region

- The number of AMR conferences also increased, with 18 countries holding conferences in 2025, again meeting targets where these existed.
- **There was also evidence that the nature of sharing at national level improved over time** in evaluation sample countries.

In HH, countries were not only sharing data with national-level/AMRCCs, but also actively engaging with/discussing the data at national level in six countries at endline (assuming no backsliding in countries not included in the summative sample). Three countries were also sharing compiled national data back down to sub-national level by endline (Kenya, Nigeria and Bangladesh). See Figure 36 for details:

  - **In AH, it was a similar picture, with six countries** actively engaging with/discussing the data at national level at endline (assuming no backsliding in countries not included in the summative sample). Three countries were also sharing compiled national data back down to sub-national level by endline (Kenya, Nepal and Nigeria). See Figure 37 for details.

In national-level sharing of relevant analysis with the Ministry of Finance or similar, there was limited progress until 2025 in terms of sharing of data highlighting the economic impact of AMR, with two endline evaluation sample countries (Nigeria and Pakistan) reporting that reports had been produced (but not substantively discussed). Supportive work was, however, done during Phase 2 that may still support production of such analysis in other countries, for example support to AMR costing exercises and economic analysis through the EcoAMR series.[43] (See Figure 36.) We note that the MA team underlined that sharing data with the MoF was never really an aim; this metric was introduced by the evaluation as relevant to understanding progress towards outcomes on domestic resource allocation (EQ4c). Relevant findings are presented in Section 4.2.1 on economic analysis, and underline the limited scope for sharing with the MoF.

Figure 36: Cross-country summary of human health sharing of analysed data at facility/sub-national, national level with AMRCCs and national level with Ministry of Finance or similar across sampled countries **(2025/6 evaluation focus countries in bold upper-case)**

KEY	Data sharing at facility/local/subnational level (1)	Data sharing at national level with AMRCC or equivalent (2)	Data sharing at national level with Ministry of Finance or similar (3)
	No compiled facility data to share	National reports not shared	No reports/studies to share
	Compiled facility/sub-national data exists but not shared	National reports shared but implications not discussed	-
	Reports shared but implications not discussed	National reports shared and discussed at national level	Studies produced, but not shared/discussed
	Reports shared and discussed at national level	National reports shared and discussed at national and sub-national level	Studies produced, shared and discussed
N/A	Data not available (not in sample)	Data not available (not in sample)	Data not available (not in sample)

[43] A series of reports produced by a consortium of international partners including the Center for Global Development, the World Organisation for Animal Health, the Institute for Health Metrics and Evaluation, RAND Europe, Animal Industry Data, and the World Bank. https://www.cgdev.org/project/forecasting-fallout-amr-economic-impacts-antimicrobial-resistance-humans

Human health	Sharing at facility/local/ sub-national level (1)			Sharing at national level with AMRCC or equivalent (2)			Sharing at national level with Ministry of Finance or similar (3)		
	Baseline (2022)	*Mid-point (2023)*	*Endline (2025)*	*Baseline (2022)*	*Mid-point (2023)*	*Endline (2025)*	*Baseline (2022)*	*Mid-point (2023)*	*Endline (2025)*
Bangladesh			N/A			N/A			N/A
Ghana			N/A			N/A			N/A
INDONESIA									
KENYA									
Laos			N/A			N/A			N/A
Malawi			N/A			N/A			N/A
NEPAL									
NIGERIA									
PAKISTAN									
Sierra Leone			N/A			N/A			N/A
Timor-Leste			N/A			N/A			N/A
Zambia			N/A			N/A			N/A

Source: Results Framework indicators #33, #34 and #38 plus narrative country-level evidence coded from progress reports and KIIs

Figure 37: Cross-country summary of animal health sharing of analysed data at facility/sub-national, national level with AMRCCs and national level with Ministry of Finance or similar across sampled countries **(2025/6 evaluation focus countries in bold upper-case)**

KEY	(1)	(2)	(3)
	No compiled facility data to share	National reports not shared	No reports/studies to share
	Compiled facility/sub-national data exists but not shared	National reports shared but implications not discussed	-
	Reports shared but implications not discussed	National reports shared and discussed at national level	Studies produced, but not shared/discussed
	Reports shared and discussed at national level	National reports shared and discussed at national and sub-national level	Studies produced, shared and discussed
N/A	Data not available (not in sample)	Data not available (not in sample)	Data not available (not in sample)

Animal health	Sharing at facility/local/ sub-national level (1)			Sharing at national level with AMRCC or equivalent (2)			Sharing at national level with Ministry of Finance or similar (3)		
	Baseline (2022)	*Mid-point (2023)*	*Endline (2025)*	*Baseline (2022)*	*Mid-point (2023)*	*Endline (2025)*	*Baseline (2022)*	*Mid-point (2023)*	*Endline (2025)*
Bangladesh			N/A			N/A			N/A
Ghana			N/A			N/A			N/A
INDONESIA									
KENYA									
Laos			N/A			N/A			N/A
Malawi			N/A			N/A			N/A
NEPAL									
NIGERIA									
PAKISTAN									
Sierra Leone			N/A			N/A			N/A
Timor-Leste			N/A			N/A			N/A
Zambia			N/A			N/A			N/A

Source: Results Framework indicators #33 and #35 plus narrative country-level evidence coded from progress reports and KIIs

4.2.4.2. International sharing

In international-level sharing, The Fleming Fund has supported three key global AMR databases: **WHO GLASS (covering HH AMR and AMC data),[44] FAO InFARM (covering animals and food systems),[45] and WOAH ANIMUSE (covering AMU in animals).[46]** Reporting from Fund-supported countries to all of these platforms increased over time. Stakeholders from multilateral organisations consistently described the Fund's contribution as foundational to expanding participation and strengthening global surveillance architecture. At the same time, access to consolidated, country-level datasets through these platforms remains constrained by: data sovereignty arrangements; partial public availability of submitted datasets; and limited integration of datasets into accessible analytical products.

GLASS AMR and AMC reporting in HH:

- **GLASS AMR data** was reported to WHO GLASS by 104 countries in 2023, up from 25 countries in 2016. The number of Fund-supported countries submitting data increased from eight in 2018 to 18 for 2023.[47] Across the five summative case study countries, over 139

[44] https://www.who.int/initiatives/glass

[45] https://www.fao.org/antimicrobial-resistance/resources/infarm-system/en/

[46] https://amu.woah.org/amu-system-portal

[47] It is important to note that there is a lag between submission of country data submitted to GLASS/ WOAH and global-level reporting: data submitted in 2025 actually represents data collected in 2023 for example.

hospitals in Indonesia now report to GLASS, and all countries improved reporting beyond Fund-supported sites. Important quality limitations remain, particularly around completeness of data and species-level identification.

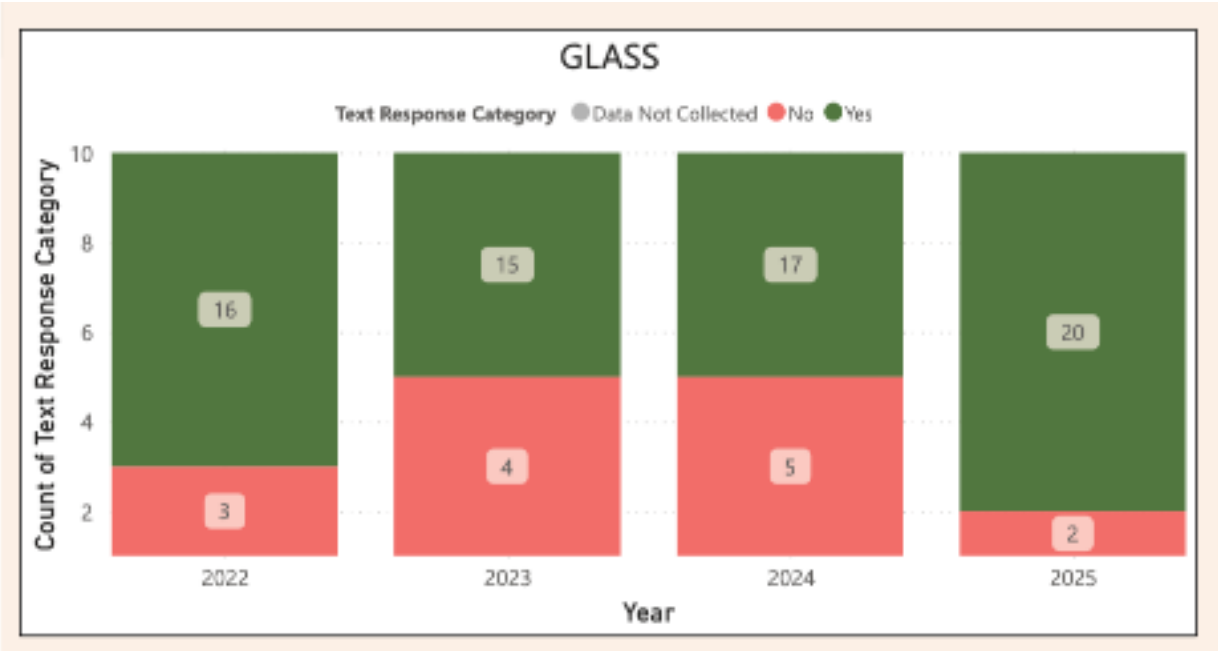
  - The scope of reporting to GLASS AMR (in terms of number of isolates reported) also increased in Fund-supported countries (from 34,156 isolates in 2018 to 148,389 in 2023) and in non-Fund-supported LMICs. Notably, the increase was steeper in non-Fund LMICs, but Fund-supported countries increased throughout COVID-19 years, whereas other LMICs showed a dip during this period. See Figure 38 for details.

- **GLASS AMU data** reporting increased from 73 countries in 2022 to 89 for 2023. Nine Fund-supported countries did not report to GLASS AMU during the period 2018–2023: eSwatini, Ghana, Malawi, Nigeria, Sierra Leone, Sri Lanka, Vietnam, Zambia, Zimbabwe.
  - The scope of reporting to GLASS AMU by Fund-supported countries also improved with time. Of the 13 Fund-supported countries reporting at least once over the period 2018-2023, six countries showed improvement over time in either the total number of data sources being captured and/or the number of antimicrobial classes being captured (seeFigure 41).

ANIMUSE participation increased from 130 in 2015 to 148 countries as of 2024 (a slight decrease from 152 countries in 2018 and 2022). Eighteen Fund-supported countries submitted data for 2024 based on data from ANIMUSE (seeFigure 42). The scope of data reported to ANIMUSE by Fund countries also increased over time, with at least nine countries improving in terms of the reporting option they used between 2018 and 2024, and all of the countries reporting to ANIMUSE reporting against Option 3 by 2024 (compared to three in 2018). See Figure 44 for details.

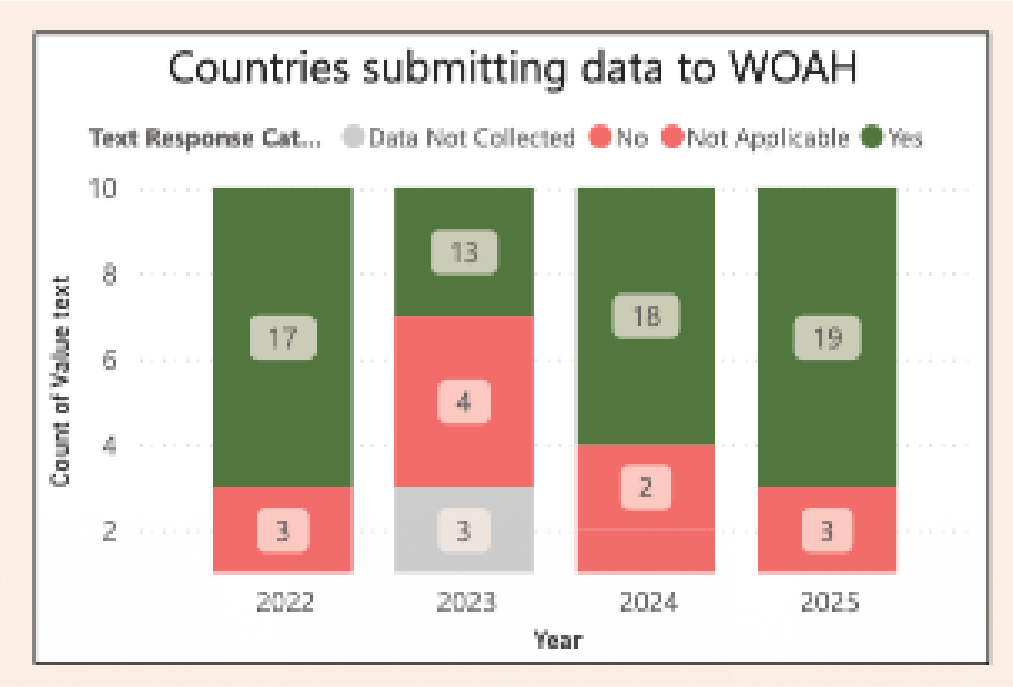
InFARM launched in 2024 as a global repository of AMR data from animals and foods, with 49 countries reporting in the first year. Eleven Fund-supported countries reported in 2024, increasing to 16 countries in 2025 (see Figure 42).

Figure 38: Number of countries submitting data to GLASS



Source: Results Framework indicator #34

Figure 39: Number of Fund-supported countries submitting data to WOAH



Source: Results Framework indicator #35

Figure 40: Fleming Fund-supported countries reporting to international level to GLASS (human health)

*KEY/NOTES: Only **countries in BOLD CAPS** in 2025/26 evaluation sample*

HUMAN HEALTH	GLASS AMR				GLASS AMU					
	2018	2021	2022	2023	2018	2019	2020	2021	2022	2023
Bangladesh	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Bhutan	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes
Eswatini	No	No	Yes	Yes	No	No	No	No	No	No
Ghana	No	Yes	Yes	Yes	No	No	No	No	No	No
INDONESIA	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes
KENYA	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Laos	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Malawi	No	Yes	No	Yes	No	No	No	No	No	No
NEPAL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NIGERIA	Yes	Yes	Yes	Yes	No	No	No	No	No	No
PAKISTAN	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
PNG	No	No	Yes	Yes	No	No	No	No	No	No
Rwanda	No	No	Yes	No	No	No	No	No	Yes	Yes
Senegal	No	No	No	No	No	No	No	Yes	Yes	No

Sierra Leone	No	No	No	No	No	No	No	No	No	No
Sri Lanka	Yes	Yes	Yes	Yes	No	No	No	No	No	No
Tanzania	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Timor-Leste	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Uganda	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vietnam	No	No	No	No	No	No	No	No	No	No
Zambia	No	Yes	Yes	Yes	No	No	No	No	No	No
Zimbabwe	No	No	No	Yes	No	No	No	No	No	No
TOTAL REPORTING	8	14	16	18	6	8	7	9	9	9

Source: Official WHO reporting/direct sources

Figure 41: Scope of HH data reported to GLASS AMU by Fund countries (number of data sources and antimicrobial types captured) 2016–23

Country	Total number of data sources captured						Total number antimicrobial types covered					
	2018	**2019**	**2020**	**2021**	**2022**	**2023**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Bangladesh	1	1	1	1	1	1	4	4	4	5	5	5
Bhutan	-	1	1	1	1	1	-	1	1	1	1	1
INDONESIA	-	-	-	2	-	1	-	-	-	4	-	1
KENYA	1	1	1	1	-	-	2	2	2	2	-	-
Laos	-	2	2	2	2	2	-	1	1	1	1	2
NEPAL	2	2	2	2	2	2	4	5	5	5	5	5
PAKISTAN	-	-	-	-	1	1	-	-	-	-	2	5
PNG	-	-	-	-	0	0	-	-	-	-	0	0
Rwanda	-	-	-	-	1	-	-	-	-	-	5	-
Senegal	-	-	-	2	2	2	-	-	-	1	1	1
Tanzania	2	2	3	3	3	3	2	2	3	3	3	3
Timor-Leste	1	1	-	-	-	-	3	3	-	-	-	-
Uganda	1	1	1	1	1	1	2	2	2	3	4	4
TOTAL REPORTING	6	8	7	9	9	9	6	8	7	9	9	9

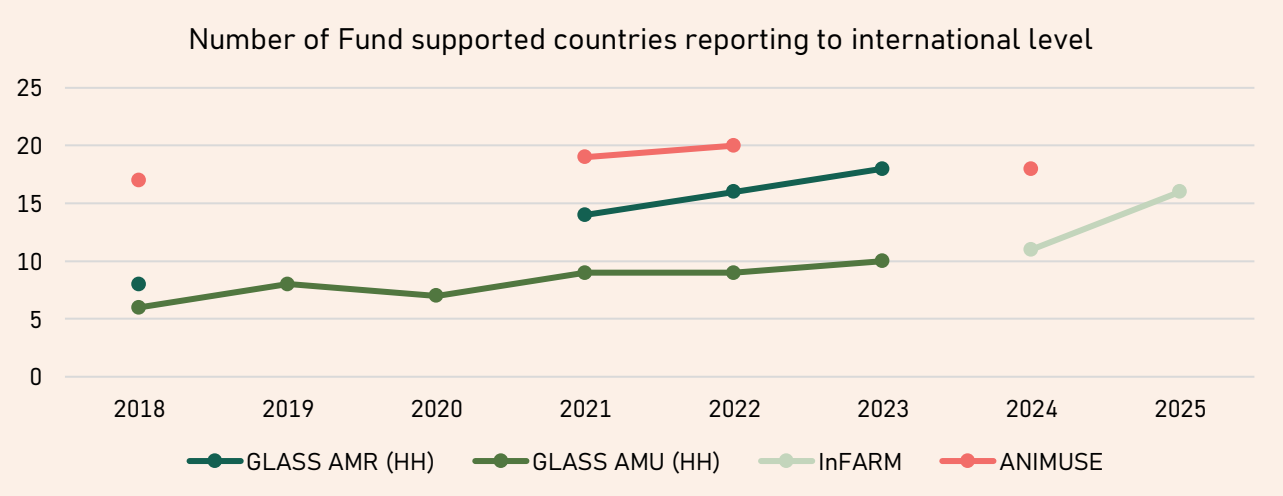
Figure 42: Fleming Fund-supported countries reporting to international level to InFARM and WOAH/ANIMUSE

	InFARM		WOAH/ANIMUSE		
	2024	**2025**	**2018**	**2022**	**2024**
Bangladesh	Yes	Yes	No	Yes	Yes
Bhutan	No	No	Yes	Yes	Yes
Eswatini	No	No	Yes	Yes	Yes
Ghana	Yes	Yes	Yes	Yes	Yes
INDONESIA	No	Yes	Yes	Yes	Yes
KENYA	Yes	Yes	Yes	Yes	Yes
Laos	Yes	Yes	Yes	Yes	Yes
Malawi	Yes	Yes	Yes	Yes	Yes
NEPAL	No	Yes	Yes	Yes	Yes
NIGERIA	Yes	Yes	Yes	Yes	Yes
PAKISTAN	Yes	Yes	Yes	Yes	Yes
PNG	Yes	No	No	No	N/A
Rwanda	Yes	Yes	No	No	N/A
Senegal	Yes	Yes	Yes	Yes	Yes
Sierra Leone	Yes	Yes	No	Yes	N/A
Sri Lanka	Yes	Yes	Yes	Yes	Yes
Tanzania	Yes	Yes	No	Yes	Yes
Timor-Leste	No	No	Yes	Yes	N/A
Uganda	Yes	Yes	Yes	Yes	Yes
Vietnam	No	No	Yes	Yes	Yes
Zambia	Yes	Yes	Yes	Yes	Yes
Zimbabwe	Yes	Yes	Yes	Yes	Yes
TOTAL REPORTING[$]	**11**	**16**	**17**	**20**	**18**

Source: FAO and WOAH, unpublished

KEY/NOTES:
*Only **countries in BOLD CAPS** in 2025/26 evaluation sample*
N/A = Not available – likely/assumed to not be reporting, but no confirmation as not evaluation sample countries for endline and no secondary data confirming submission or lack of submission found.
[$] = Totals based on data from WOAH and FAO, and may not always align with country-level data above

Figure 43: Number of Fund-supported countries reporting to international level



Source: WHO GLASS website, FAO and WOAH, unpublished

Figure 44: Cross-country summary of level of AH reporting to ANIMUSE 2018-2023 (reporting option used)

	Level of reporting to ANIMUSE 2018 – 2023		
Country	2018	2022	2024
Bangladesh	None	Option 3	Option 3
Bhutan	Option 1	Option 3[&]	Option 3
Eswatini	Option 1*	Option 3*	Option 3
Ghana	Option 1	Option 3[&]	Option 3
INDONESIA	**Option 2**	**Option 3**	**Option 3**
KENYA	**Baseline**	**Option 3**	**Option 3**
Laos	Baseline	Baseline [&]	Option 3
Malawi	Option 3	Option 1	Option 3
NEPAL	**Option 1**	**Option 3**	**Option 3**
NIGERIA	**Option 1**	**Option 3**	**Option 3**
PAKISTAN	**Option 3[&]**	**Option 3**	**Option 3**
PNG	None	None	Not available
Rwanda	None	None	Not available
Senegal	Option 1*	Option 3*	Option 3
Sierra Leone	None	Baseline[&]	Not available
Sri Lanka	Option 1*	Option 3*	Option 3
Tanzania	None	Option 1[&]	Option 3
Timor-Leste	Option 1	Option 3	Not available
Uganda	Baseline	Option 1[&]	Option 3
Vietnam	Option 1	Option 1	Option 3
Zambia	Option 3[&]	Option 3	Option 3

Zimbabwe	Baseline [&]	Baseline [&]	Option 3
TOTALS[$]:			
Baseline[$]	**3**	**3**	**0**
Option 1	**9**	**4**	**0**
Option 2	**1**	**0**	**0**
Option 3	**3**	**13**	**18**
Total reporting	**17**	**19**	**18**
Not reporting	**5**	**2**	**4**

Source: ANIMUSE online database and wider document review, see key/notes below

KEY/NOTES:
*Only **countries in BOLD CAPS** in 2025/26 evaluation sample*
* = Data from ANIMUSE online database
[&] = Data from wider document review
[$] = Totals based on data from WOAH, and may not always align with country-level data above.
N/A = Not available – likely/assumed to not be reporting, but no confirmation as not evaluation sample countries for endline and no secondary data confirming submission or lack of submission found.

4.2.4.3. Other sharing of evidence

In addition to sharing at the levels discussed in the preceding sections, evidence generated through Fleming Fund-supported activities has also been disseminated widely through peer-reviewed publications and structured grey literature outputs. A portfolio-wide collation and meta-analysis of Fleming Fund products published between 2015 and 2025 identified 483 documents, including 175 academic articles and 308 items of grey literature, produced by country, regional and global implementing partners. Academic outputs are dominated by primary research studies, with a strong focus on AMR surveillance, AMS and multi-sectoral analysis, and include a substantial proportion of multi-country and regional studies. Complementary grey literature outputs include assessment reports, surveillance protocols, guidelines, advocacy documents and progress reports, reflecting systematic sharing of analysis to inform policy, institutional development and operational practice beyond routine reporting channels. Together, these outputs demonstrate that analysis generated through Fleming Fund investments has been made accessible through formal publication and dissemination pathways, supporting use by wider technical, policy and research audiences. This is in addition to efforts described in Section 4.4.5, Box 8.

4.3 EQ2: Alignment and coherence

As agreed with DHSC, the 2026 summative evaluation did not prioritise a standalone assessment of Evaluation Question 2 (coherence and coordination), in part because coherence was covered in the 2024 Progress Report, building on findings from the Phase 1 summative evaluation. Those earlier assessments identified persistent coordination challenges alongside strong alignment with national priorities, and these findings informed adaptations to Phase 2 design and delivery by DHSC and the MA. The key findings from the 2024 Progress Report are summarised below, rather than reassessed, with supporting evidence in Table 20.

Coherence and coordination: summary of findings from the 2024 Progress Report

The Fleming Fund maintained strong alignment with national priorities, particularly National Action Plans (NAPs), supported through consultation during Phase 2 design and the

development of Country Investment Strategies (CIS). Alignment with government priorities was therefore not a primary constraint on performance.

By contrast, coherence and coordination remained persistent and material challenges, reflecting the Fund's scale, complexity and delivery model. Phase 2 activity spanned 25 countries and a large portfolio of country, regional and global grants. While this breadth reflected the technical and institutional complexity of AMR surveillance, it generated significant coordination demands that proved difficult to manage in practice. Internal coherence was further weakened by the introduction of new grants to deliver Phase 2 strategic shifts alongside existing instruments, increasing portfolio complexity rather than consolidating it.

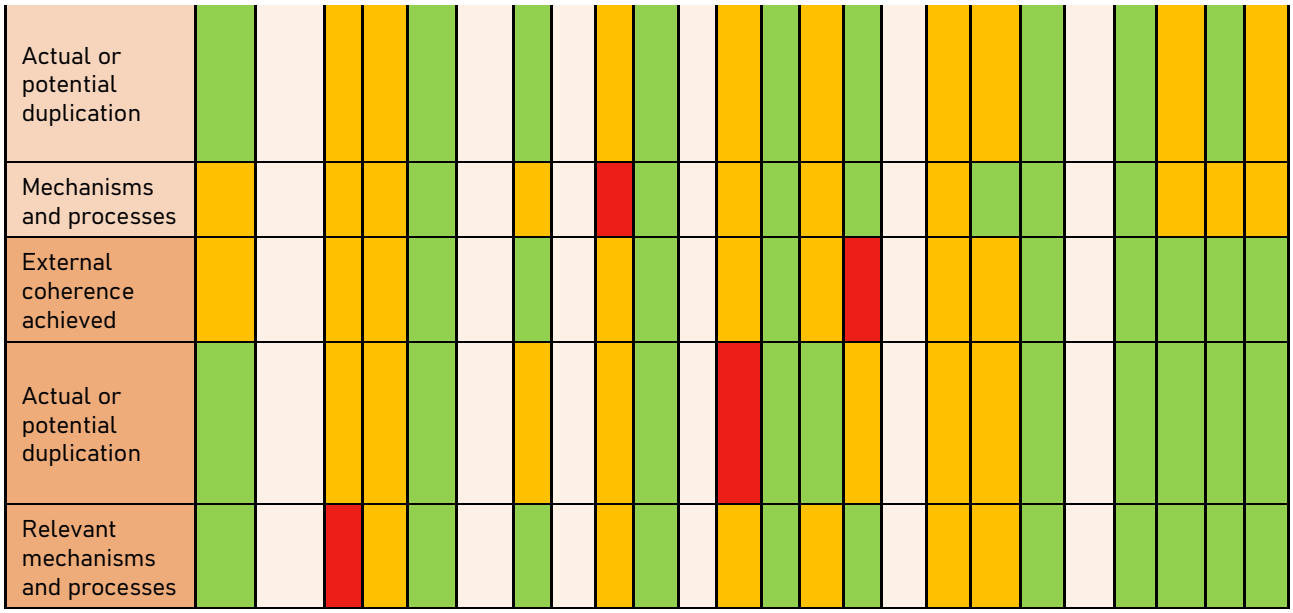
The CIS process and strengthened country coordination mechanisms were introduced to address these challenges and provided a useful framework for clarifying intended roles and synergies. However, operationalisation was uneven and time-consuming. Sequencing issues – most notably the late procurement and contracting of some RGs – meant that CIS priorities were not consistently reflected in grantees' workplans, and CISs were not routinely shared with all implementing partners.

External coherence was mixed. While the AMR surveillance donor landscape itself is not highly congested, AMR activity is embedded within wider human and AH systems. Linkages with adjacent programmes were inconsistently embedded, and stakeholders raised concerns about potential duplication, particularly in AH. At country level, coordination roles played by country grantees and AMRCCs varied in effectiveness depending on capacity and resourcing. At regional and global levels, coordination often relied on individual initiative, creating risks where resources and convening capacity were constrained.

Overall, the evidence suggests that coordination and coherence challenges – rather than misalignment with national priorities – constrained efficiency and reduced effective implementation time, consistent with the efficiency and value-for-money findings in Vol I (Section 4.5), limiting what could realistically be achieved within Phase 2, and representing conscious design trade-offs rather than grant-level delivery failure.

Table 20: Evaluation focus countries alignment and coherence (May 2024)

	Bangladesh		Ghana		Indonesia		Kenya		Laos		Malawi		Nepal		Nigeria		Pakistan		Sierra Leone		Timor-Leste		Zambia	
Type/Year	2018	22/23	2018	22/23	2018	22/23	2018	22/23	2018	22/23	2018	22/23	2018	22/23	2018	22/23	2018	22/23	2018	22/23	2018	22/23	2018	22/23
Alignment achieved		-				-		-			-					-				-				
Actual or potential duplication																								
Relevant mechanisms/ processes																								
Internal coherence achieved																								



Source: Evaluation team analysis for 2024 Progress Report (unpublished), drawing on document review and country-level KIIs

4.4 EQ3: Sustainability

This annex provides the detailed evidence and explanatory material underpinning the sustainability assessment presented in Section 4.4 of the main report. It documents sustainability-related findings on resources, capacity, motivation, programme design and sectoral differences, and summarises late-stage sustainability efforts and transition activities. These draw on two MA learning products on sustainability.[48] [49]

Sustainability was identified as an underpinning principle of the Fleming Fund from inception, and Phase 2 placed increased emphasis on sustainability planning. Within the programme's delivery architecture, sustainability was the **only long-term outcome area for which the MA was contractually accountable**, reflected in specific sustainability markers in the Results Framework.

However, no portfolio-level sustainability goals were articulated by DHSC, and country- and grant-level sustainability planning focused primarily on demonstrating how continuation of activities and outputs lead to existing long-term outcomes rather than on differentiated sustainability objectives (e.g. sustaining activities versus sustaining capabilities or influence). For instance, while country-level sustainability plans do require grantees to articulate outcomes that activities should contribute to, including beyond Phase 2, the extent to which these represented actual sustainability outcomes was often questionable. Sustainability plans did not appear to have driven activity selection – rather, we found sustainability plans usually attempt to show how already planned activities in the CIS are linked to sustainability. As a result, sustainability plans are more activity and output driven than strategically focused on sustainability outcomes. In addition, while Direct Grant sustainability plans identified goals in line with those under pillar 2 of the global strategy for sustainability document, they typically lacked an articulation of a strategy for achieving these goals, including specific measurable and demonstratable outputs and outcomes leading to those goals. Furthermore, there was a lack of integration across

[48] https://www.flemingfund.org/publications/promoting-sustainability-of-the-supply-of-reagents-and-consumables-for-amr-surveillance/

[49] https://www.flemingfund.org/publications/sustaining-amr-surveillance-beyond-the-fleming-fund/

sustainability plans developed by country, regional and direct grantees. This lack of strategic sustainability focus across the Fund shaped how sustainability was operationalised and reported.

4.4.1. Evidence on whether previous sustainability concerns are improving

The Phase 1 Summative and 2024 Progress Reports noted potential sustainability concerns, including challenges around the affordability of equipment, consumables and recurrent operating costs.

Drawing on MA reporting from site planning and monitoring tools (completed every six months), there is evidence of some proxy measures that have addressed some of these concerns to varying degrees. Indicators include: freezers under service contracts; stock-outs of reagents disrupting microbiology; and issues with equipment procured by the Fleming Fund. See the following paragraph for summary findings, and Table 21 and Table 22 for supporting evidence.

Across the portfolio, these indicators suggest improving functionality and risk mitigation over time, particularly during 2025. In HH, the share of sites with freezers under service contracts increased sharply into 2025 (peaking in 2025 S1) before falling back somewhat by 2025 S2, indicating progress but uneven consolidation. Disruptive stock-outs (>1 week) reduced markedly from 2024 to 2025, although a minority of countries continued to experience volatility. Reported issues with Fleming Fund-procured equipment also declined across 2025, consistent with stabilisation of maintenance and repair arrangements. In AH, the picture is less complete but broadly similar: stock-outs appear more volatile (worsening in 2024 S2 before improving by 2025 S2), while equipment issues reduce between 2025 S1 and 2025 S2; coverage of freezer service contracts in 2025 S2 remains mixed, with substantial variation across countries.

Table 21: HH percentage of sites with freezers under service contracts, stock-outs of reagents, and Issues with Fleming Fund-procured equipment

HH	% sites with freezers under a service contract with regular external monitoring of temperature				% sites with stock-outs of reagents or consumables that disrupted microbiology activities for >1week				% sites with issues with equipment procured or provided by the Fleming Fund			
	2024 (S1)	2024 (S2)	2025 (S1)	2025 (S2)	2024 (S1)	2024 (S2)	2025 (S1)	2025 (S2)	2024 (S1)	2024 (S2)	2025 (S1)	2025 (S2)
Indonesia	83	85	86	71	38	50	0	17	23	60	64	23
Kenya		75	100	100		7	20	10		71	40	20
Nepal	7	8	8	6	0	0%	0%	0%	21%	21%	7%	7%
Nigeria	9	9	55	31	100	91	0	38	91	91	91	17
Pakistan	0	0	33	31	20	0	8	8	11	62	8	8
Bangladesh	100	0	11	100	100	0	11	22	0	100	29	33
Bhutan	60	40	40	25	0	0	0	0	20	40	33	50
Eswatini	100	100	100	100	0	100	0	0	17	25	0	0
Ghana	62	0	88	83	25	12	0	17	0	38	25	8
Laos	17	100	100	17	0	0	0	0	0	0	0	8
Malawi	88	88	100	90	88	40	20	10	100	70	30	20
PNG	20	17	33	17	67	0	0	0	0	0	0	0
Rwanda		33	75	67		100	40	33		0	0	0
Senegal		25	67	33		83	33	67		40		33
Sierra Leone		67	67	50		100	33	50		100	67	100
Sri Lanka												
Tanzania	83	56	100	100	67	70	40	0	33	0	0	0
Timor-Leste	100	100	100	67	43	14	14	0	71	57	57	14

Uganda		100	100	86	100	79	7	64	57	36	31	46
Vietnam	100	100	100	100	0	0	0	0	5	0	0	0
Zambia	86	89	100	100	12	22	44	11	88	33	33	22
Zimbabwe		6	67	57		67	86	86			29	29

Source: MA Surveillance Tool – questions 4a3, 7a1, and 7a6

Table 22: AH percentage of sites freezers, stock-outs of reagents, and issues with equipment

AH	% sites with freezers under a service contract with regular external monitoring of temperature	% sites with stock-outs of reagents or consumables that disrupted microbiology activities for >1week	% sites with issues with equipment procured or provided by the Fleming Fund			
	2025 (S2)	2025 (S2)	2024 (S1)	2024 (S2)	2025 (S1)	2025 (S2)
Indonesia	17	33	0	0	67	50
Kenya	75	33		100	75	22
Nepal	67	0	0	0	0	0
Nigeria	70	0	86	100	100	55
Pakistan	83	0	60	60	50	17
Bangladesh	82	0	0	0	0	0
Bhutan	25	0	75	75	100	75
Eswatini	100	0	25	0	0	0
Ghana	80	40	0	33	0	0
Laos	50	0		33	0	0
Malawi	0	100	67	75	0	0
PNG	0	0	0	100	0	0
Rwanda	100	0				0
Senegal	0	17		33		50
Sierra Leone	0	100			0	
Sri Lanka						
Tanzania	100	0	0	33	33	50
Timor-Leste	0	0	0	0	0	0
Uganda	71	43	33	0	29	20
Vietnam	100	0	0	0	0	0
Zambia	100	0	80	80	40	20
Zimbabwe	71	71			50	50

Source: Surveillance Tool – questions B3.1.5, C1, and C6

4.4.2. Factors that shape sustainability prospects: resources, capacity and motivation

This section builds directly on the analysis of sustainability constraints set out in Vol I, Section 4.4.3, which highlighted the central role of resources, institutional capacity and incentives in shaping the durability of Fleming Fund investments. Consistent with that earlier analysis, and drawing on updated cross-country evidence, this section examines how these factors continue to influence sustainability prospects in Phase 2. In doing so, it focuses on the interaction between domestic resource availability, workforce and system capacity, and motivation to sustain AMR

surveillance activities once external support reduces or ends. Supporting evidence for this analysis is included in Table 23 and Table 24.

Resources

Despite growing discursive commitment to AMR, and increasing policy and regulatory change (see findings under 4.5 EQ4: Data Use), there have been rare and limited increases of government spending towards AMR across the different sectors (see cross-country analysis tables below). In the context of limited prior AMR spending, increases in budget allocation are both notable and limited to confined areas: examples of documented domestic budget lines and allocations include Uganda's parliamentary resolution raising microbiology allocations; Eswatini's allocation for bacteriological media; PNG's NAQIA budgeting signal; and in Zambia the costs for AMU surveillance (PPS) and Medicines & Therapeutics Committees were absorbed into National Medical Stores budgets. As suggested by some informants, the closure of the Fund could act as a 'wake up call', compelling governments to take over recurrent costs. Yet evidence suggests the dissonance between stated government priorities (including AMR and health more broadly) and budgetary allocations is a clear risk to the sustainability of donor Fleming Fund investments.

The overall trajectory had been improving compared to 2018, with the AMR agenda maturing at country, regional and global levels and the evolving donor base for AMR providing opportunities for longer-term sustainability. Yet recent global reductions in ODA funding risk offsetting these improvements, by putting further strain on national health budgets. A review of the AMR funding environment has shown that at the global level the majority of recent or ongoing funding calls focus on accelerating antimicrobial research and development (R&D), rather than more comprehensive interventions to address the impact of AMR on health systems or to strengthen data generation. Examples include the $1 billion AMR Action Fund, a collaboration of 29 private sector investors funding small- to medium-sized biotech companies, and the recently launched Gr-ADI (the Gram-Negative Antibiotic Discovery Innovator): a consortium of the Wellcome Trust, the BMGF and the Novo Nordisk Foundation, investing $60 million over the next three years in novel antibiotic discovery, geared towards solutions for LMICs.

Outside of R&D, the $500 million Pandemic Fund represents the largest single fund for surveillance, laboratory strengthening and health workforce, though projects are encouraged to incorporate OH strategies and AMR activities rather than pursuing AMR action in its own right. This fund was referenced by several country and global stakeholders as being utilised by former Fleming Fund grantees in order to pursue laboratory strengthening initiatives. Several programmes exist to work directly with in-country actors in LMICs, such as the AMR MPTF (value of $36.6 million from the UK, the Netherlands, Sweden, Germany and the EU) channelled through the Quadripartite of the FAO, United Nations Environment Programme (UNEP), WHO and WOAH in 11 LMICs/upper-middle income countries (UMICs) on broader AMR and surveillance system interventions. ICARS, a collaboration of the Danish government and the World Bank, continues to provide technical assistance (TA) and funding to LMICs for solutions to country-specific AMR problems. No equivalent bilateral or philanthropic-powered programme to the scope and scale of the Fleming Fund could be identified, nor was any explicit reference to funders stepping in to fill gaps or continue activities initiated under the Fleming Fund.

Thematic funding, aligning with funders' topics of interest, may also be on the increase. For example, recent sources of funding have also centred AI in AMR strategies. The Lacuna Fund (supported by the Wellcome Trust) issued a $1 million call for proposals in 2024 with the aim of strengthening AMR datasets for machine learning. The GSK-Fleming Initiative 'Grand Challenge' research programmes ($60 million) aimed to power drug discovery with automation.

Capacity

Remarkable progress has been achieved in building cohorts of LMIC professionals with the capacity to address AMR, but capacity gains are at risk, whether due to turnover or implications of resource constraints. Capacity across Fleming Fund-supported AMR surveillance systems has continued on a trajectory of improvement. This improvement has been strongest, particularly in HH, with AH and the environment receiving more limited government and donor support. Yet, in none of the Fleming Fund-supported countries covered by the evaluation (see Table 23) was capacity fully institutionalised: were donor support to end, the overall capacity of the AMR surveillance workforce would be impacted. This assessment must be caveated by limited sample for the summative evaluation (five countries). However, trends over the evaluation up to the Phase 2 midline point and summative document review and data collection with grantee leads suggest full institutionalisation is unlikely to have occurred in any of the countries supported by Fleming Fund – as was to be expected within a 10-year implementation timeframe. The most promising cases were seen in more mature AMR surveillance systems where a degree of activity continuation seems guaranteed, and consequently at least some degree of capacity is more likely to be retained, even if in more limited terms. In countries with less mature systems, facing widespread discontinuation of surveillance activities, maintenance of skills is more unlikely. Further support is needed to strengthen and institutionalise capacity in all Fleming Fund-supported countries to sustain current surveillance system activities.

Motivation

Gains in motivation and engagement are fragile, and likely affected by resource constraints and the timing of the Fund's closure. The Phase 1 evaluation highlighted the importance for sustainability of building practitioner demand for data at a clinical level so that surveillance systems are used and the right data is gathered. The importance of this was underscored in the Fleming Fund's Global Level Strategy for Sustainability and Exit Planning. Evidence from continued implementation following Phase 1 suggests that steps have been made in the right direction. However, Fleming Fund closure will impact progress in each of these areas.

Table 23: Status of country-level sustainability determinants in HH: resources, capacity and motivation **(2025/6 evaluation focus countries in bold upper-case)**

Data collected in * = 2018/19; ^ = 2023/4; ~ = 2025/6

HH	Resources			Capacity			Motivation			Motivation		
	Costs & revenues			Institutionalising supply			Feedback loops			Demand		
	BL*	MP^	EL~	BL*	MP^	EL~	BL*	MP^	EL~	BL*	MP^	EL~
Bangladesh	Insufficient	Partly sufficient		Insufficient	Insufficient		Data shared	Data shared		Motivation partially sufficient	Motivation partially sufficient	
Ghana	Insufficient	Partly sufficient		Insufficient	Insufficient		0	Data shared		Motivation insufficient to drive use	Motivation partially sufficient	
INDONESIA ***	Partly sufficient	Partly sufficient	Partly Sufficient	Sufficient and institutionalised	Sufficient and institutionalised	Sufficient and institutionalised	No compiled facility data	Data shared	Data shared	Motivation partially sufficient	Motivation partially sufficient	Motivation strong and driving use
KENYA**	Insufficient	Partly sufficient	Partly Sufficient	Insufficient	Sufficient but not institutionalised	Sufficient and institutionalised	No compiled facility data	Data shared and discussed	Data shared and discussed	Motivation insufficient to drive use	Motivation partially sufficient	Motivation partially sufficient
Laos	Insufficient	Insufficient		Insufficient	Insufficient		No compiled facility data	Data exists but not shared		Motivation partially sufficient	Motivation partially sufficient	
Malawi	0	Partly sufficient		0	Sufficient but not institutionalised		0	Data shared		0	Motivation strong and driving use	
NEPAL**	Partly sufficient	Partly sufficient	Partly sufficient	Insufficient	Sufficient but not institutionalised	Sufficient but not institutionalised	0	Data shared and discussed	Data shared and discussed	Motivation partially sufficient	Motivation partially sufficient	Motivation partially sufficient
NIGERIA**	Partly sufficient	Partly sufficient	Partly sufficient	Sufficient but not institutionalised	Sufficient but not institutionalised	Sufficient and institutionalised	0	Data exists but not shared	Data shared and discussed	Motivation strong and driving use	Motivation partially sufficient	Motivation strong and driving use
PAKISTAN**	Insufficient	Partly sufficient	Partly sufficient	Insufficient	Insufficient	Partly sufficient	Data exists but not shared	Data shared	Data shared	Motivation partially sufficient	Motivation partially sufficient	Motivation partially sufficient
Sierra Leone	Insufficient	Insufficient		Insufficient	Insufficient		No compiled facility data	Data shared and discussed		Motivation insufficient to drive use	Motivation insufficient to drive use	
Timor-Leste	Insufficient	Partly sufficient		Insufficient	Sufficient but not institutionalised		No compiled facility data	No compiled facility data		Motivation insufficient to drive use	Motivation partially sufficient	

Zambia	Insufficient	Partly sufficient		Insufficient	Sufficient but not institutionalised		No compiled facility data	Data shared and discussed		0	Motivation partially sufficient	

Source: Evaluation team analysis for 2024 Progress Report (unpublished), drawing on document review and country-level KIIs

Table 24: Status of country level sustainability determinants in AH: Resources, Capacity, and Motivation **(2025/6 evaluation focus countries in bold upper-case)**

Data collected in * = 2018/19; ^ = 2023/4; ~ = 2025/6

AH	Resources			Capacity			Motivation			Motivation		
	Costs & revenues			Institutionalising supply			Feedback loops			Demand		
	BL*	MP^	EL~	BL*	MP^	EL~	BL*	MP^	EL~	BL*	MP^	EL~
Bangladesh	Insufficient	Partly sufficient		Insufficient	Insufficient		Data shared	Data exists but not shared		Motivation partially sufficient	Motivation partially sufficient	
Ghana	Insufficient	Insufficient		Insufficient	Insufficient		0	Data exists but not shared		Motivation insufficient to drive use	Motivation partially sufficient	
INDONESIA**	Insufficient	Partly sufficient	Insufficient	Sufficient and institutionalised	Sufficient and institutionalised	Sufficient and institutionalised	No compiled facility data	No compiled facility data	No compiled facility data	Motivation partially sufficient	Motivation partially sufficient	Motivation partially sufficient
KENYA**	Insufficient	Partly sufficient	Partly sufficient	Insufficient	Sufficient but not institutionalised	Sufficient but not institutionalised	No compiled facility data	Data exists but not shared	Data exists but not shared	Motivation insufficient to drive use	Motivation partially sufficient	Motivation insufficient to drive use
Laos	Insufficient	Insufficient		Insufficient	Insufficient		No compiled facility data	Data exists but not shared		Motivation partially sufficient	Motivation partially sufficient	
Malawi	0	Partly sufficient		0	Sufficient but not institutionalised		No compiled facility data	Data shared		0	0	
NEPAL**	Insufficient	Partly sufficient	Partly sufficient	Insufficient	Sufficient but not institutionalised	Sufficient but not institutionalised	0	No compiled facility data	Data shared	Motivation partially sufficient	Motivation partially sufficient	Motivation partially sufficient
NIGERIA**	Partly sufficient	Partly sufficient	Partly sufficient	Sufficient but not institutionalised	Sufficient but not institutionalised	Sufficient but not institutionalised	No compiled facility data	Data exists but not shared	Data shared	Motivation strong and driving use	Motivation partially sufficient	Motivation partially sufficient
PAKISTAN**	Insufficient	Insufficient	Partially sufficient	Insufficient	Insufficient	Partly sufficient	Data exists but not shared	Data shared	Data shared	Motivation insufficient to drive use	Motivation partially sufficient	Motivation partially sufficient
Sierra Leone	Insufficient	Insufficient		Insufficient	Insufficient		No compiled facility data	Data shared and discussed		Motivation insufficient to drive use	Motivation insufficient to drive use	

Timor-Leste	Insufficient	Insufficient		Insufficient	sufficient but not institutionalised		No compiled facility data	data exists but not shared		Motivation insufficient to drive use	Motivation insufficient to drive use	
Zambia	Insufficient	Partly sufficient		Insufficient	sufficient but not institutionalised		No compiled facility data	data shared		0	Motivation partially sufficient	

Source: Evaluation team analysis for 2024 Progress Report (unpublished), drawing on document review and country-level KIIs

4.4.3. Animal health sustainability: model-specific risks

Sustainability challenges are particularly acute in AH. This section provides further detail to complement Vol 1, Section 4.4.4.

Active surveillance model

The Fleming Fund's approach to AH surveillance emphasised **active, on-farm sampling** of healthy animals to generate data on pathogens of public health concern. This model critically generated baseline public health-related data and built laboratory capacity in contexts where AH systems were frequently weak and under resourced. However, it proved:

- high-cost and logistically complex;
- dependent on periodic external funding;
- weakly aligned with AH priorities;
- difficult to integrate into existing financing and incentive structures; and
- the periodic nature contributed to deskilling between rounds and wastage of consumables.[50]

While these challenges were partly a function of context, they also reflect underlying design choices. Alternative configurations could have been considered, including lower-cost sampling strategies (e.g. reduced frequency or sentinel approaches), greater reliance on routine or programme-linked sampling, or substitution of high-cost laboratory methods with more manual or context-appropriate techniques where throughput requirements allowed. These options may not have fully resolved sustainability constraints, but could have reduced cost per sample and improved alignment with existing systems.

Passive and integrated approaches

Passive surveillance and more integrated approaches – such as leveraging routine disease control, food safety inspections and existing sampling flows – were explored more seriously only late in implementation and during close-out planning. These approaches were widely viewed as having stronger sustainability prospects but were introduced too late to materially affect overall outcomes.[51]

The evidence therefore supports the conclusion that sustainability challenges in AH are **structural and model-driven**, rather than reflecting weak delivery or limited commitment.

Late-stage sustainability and transition efforts

Following the decision to close the Fleming Fund in June 2025, sustainability efforts intensified. These included:

- roundtable discussions with partners and donors;

[50] MA report: Optimising AMR surveillance in animal health: A Case Study Review https://www.flemingfund.org/publications/optimising-amr-surveillance-in-animal-health/

[51] Ibid.

- prioritising results and activities that focused on sustainability;
- where time and money permitted, the MA allowed country grantees to include activities which were in their Sustainability and Exit Plans (SEPs) but which had not yet been included in work plans and budgets up until that point;
- bespoke grants and initiatives to support continuity beyond closure; and
- commissioning of additional[52] learning and legacy products to codify evidence and experience.

While these efforts demonstrate responsiveness and commitment, they occurred within the constraints of the Fund's original design and compressed timelines. Stakeholders consistently noted that earlier and more explicit sustainability planning would have been required to materially alter prospects for sustaining routine surveillance activities.

Structural and contextual constraints

Several cross-cutting structural factors shape sustainability prospects regardless of country-level effort:

- the scale, ambition and novelty of the programme;
- the large country footprint across diverse contexts;
- reliance on high-cost laboratory technologies;
- limited differentiation of surveillance models across countries;
- compressed effective implementation time due to COVID-19 and replanning; and
- a deteriorating global financing environment, including ODA reductions.

These constraints help explain why sustainability outcomes should be interpreted as **bounded by context and design**, rather than as indicators of delivery performance.

Relationship to main sustainability judgement

This annex documents the detailed evidence underpinning the judgement in Section 4.4 that:

- sustainability prospects for routine AMR surveillance activities are limited and uneven;
- some forms of progress – human capital, governance and global public goods – are more likely to endure; and
- sustainability risks are primarily structural and contextual.

The annex does not introduce additional judgements beyond those presented in the main report.

4.4.4. Sustainability & exit planning

As part of Phase 2, the Fleming Fund introduced SEPs as a mechanism to strengthen prospects for long-term sustainability. In practice, however, as discussed under Section 4.4, these plans lacked a coherent strategic foundation and did not provide a convincing pathway towards sustained AMR surveillance once Fund support ended. While SEP templates required grantees to

[52] The MA learning plan was already in place from late 2023/early 2024.

identify expected outputs, outcomes and activities, these were typically generic actions already included in CIS workplans and retrofitted into sustainability templates, rather than purpose-designed measures to secure continuity or transition.

SEPs generally presented activities in isolation, without a clear overarching narrative, ToC, or explanation of how proposed actions would cumulatively contribute to sustaining surveillance systems. There was limited evidence of systematic consultation with national governments, engagement across Fleming Fund grantees, or effective use of political economy analysis (PEA), even where such analysis had been completed well in advance. A similar pattern was evident among DGs, which developed overarching sustainability plans but faced comparable limitations. These plans did not consistently assess risks associated with programme closure, specify how those risks would be mitigated, or identify where further support or coordination would be required, including opportunities for synergies across Fleming Fund grants. As a result, sustainability efforts across the portfolio appeared siloed, with weak and often implicit links between activities, intended outcomes and longer-term system goals.

Implementation of sustainability activities was further constrained by timing and programme messaging. Unclear signalling around the end of the Fund meant that sustainability planning was not prioritised until the decision to close the programme was communicated in June 2025. This left limited time to operationalise sustainability objectives alongside grant closure. Throughout implementation, there was broad recognition that tackling AMR is a long-term challenge requiring sustained effort over decades. The significance of DHSC's original ten-year commitment – particularly in enabling longer-term contracting without repeated market re-tendering – should not be understated. However, in practice, this commitment was necessarily delivered through multiple phases and funding allocations tied to government spending review cycles.

This created persistent uncertainty around programme continuity, exacerbated by successive single-year spending review extensions following Brexit and COVID-19, with associated administrative and planning implications (see Table 7 and Table 8). Implementing partners were therefore required to plan simultaneously for programme extension and for exit, and in practice planning for exit – and associated sustainability actions – was not prioritised. SEPs consequently played a limited role in shaping Phase 2 implementation, constrained by their late introduction, template-driven design, and competing planning demands. They therefore fell short of supporting countries to define and pursue realistic, context-specific sustainability trajectories. A similar dynamic appears to have characterised the transition from Phase 2 to Phase 3, with optimism about programme extension persisting until early 2025 and sustainability-focused interventions only brought to the fore in the final six to nine months of implementation. This compressed timeframe, combined with staff turnover across national surveillance systems, grantees, DHSC and the Management Agent, further limited prospects for embedding sustainable change.

4.4.5. Sustainability efforts since programme closure

Since the decision to close the Fund, taken in June 2025, there has been substantial emphasis on strengthening sustainability results, with some progress and some efforts ongoing. DHSC and the MA have implemented a range of initiatives to address known sustainability challenges. These activities were additional to core programme delivery and were implemented under significant time and design constraints. Other activities that were a priority for Phase 2, including

clinical engagement[53] (Annex 4.5.2) were also relevant. In this section we summarise those efforts, although we are unable to substantively comment on their effectiveness.

Country-level roundtables (selected countries)
In several focus countries – including Indonesia, Nepal, Pakistan, Kenya, Ghana, Laos, Zambia – the Fund supported country-level roundtables bringing together government counterparts, implementing partners and, in some cases, donors. Where there is evidence of outcomes, roundtables were described as doing three practical things. First, they helped surface and sharpen the 'real gaps' and provided country-specific detail on what was at risk. Second, they supported DHSC, the MA and grantees to target remaining support more deliberately by clarifying which elements were plausibly 'embedded' and which were not. Third, they supported donor alignment and external engagement: DHSC noted using roundtable outputs to share with external actors and to inform conversations with other partners. These roundtables were therefore primarily structured dialogue and sense-making forums; they were not designed as mechanisms to guarantee financing or continuation of activities, and their contribution should be interpreted as learning- and coordination-focused rather than outcome-assuring.

Shift in late-stage support towards ISF, technical assistance (TA) and global public goods approaches
As prospects for sustaining full country-level delivery diminished, DHSC described a shift towards a TA model and use of non-ODA funding streams, including an ISF BioShield bid with AMR surveillance elements, reflecting an intent to integrate AMR into broader global health security and biosecurity programming. This shift reflected learning about affordability and absorptive capacity, and aimed to re-anchor support around functions more likely to endure beyond closure (e.g., intelligence, standards, partnerships, and multi-agency capacity), rather than maintaining input-intensive national surveillance activity. Evidence suggests this was conceptually coherent but introduced late, and should be understood as an adaptive, legacy-oriented adjustment, not a substitute for earlier design-stage sustainability choices.

Support to Fellowship alumni
Evaluation evidence indicates that the Fleming Fellowship Scheme has generated a cohort of alumni who continue to contribute to AMR surveillance and policy communities and are widely viewed as one of the Fund's more durable legacy assets. Following programme closure, the Fleming Initiative has publicly positioned itself as the steward of this legacy, including assuming responsibility for the Fellowship alumni network. Stated intentions focus on maintaining alumni connectivity through collaboration, peer learning and professional development, and linking former Fellows into wider AMR policy and research networks. This role is best understood as supporting ongoing professional engagement and influence, rather than as a mechanism for sustaining national surveillance systems.

Targeted support to consumables and short-term continuity needs
DHSC's explicitly highlighted the consumables/reagents and equipment maintenance problem as a critical sustainability risk, noting that TA mechanisms (including IHR SP) do not provide consumables and reagents, and are exploring time-limited provision of such resources as a bridge until costs could be embedded in national budgets. In parallel, DHSC described scoping one-year transitional support for maintenance and supplies for a prioritised subset of high-end labs and sentinel sites, conditional on political buy-in and government commitments set out in

[53] Noting potential of closer engagement with clinicians to strengthen demand for microbiology services and use of data, thereby reinforcing the value of laboratory services.

an MoU. These measures were framed as bridging and risk-mitigation interventions, rather than solutions to underlying affordability and financing constraints.

Sustainability and exit planning activities:
Alongside the roundtables, the MA focused on implementation and prioritisation of SEPs, including strengthening funding of SEPs in rebudgeting for close-out where feasible (i.e. including activities which were in their sustainability plans but which had not previously been included in work plans and budgets[54]). While CIS plans were never updated on the back of SEPs (due to time constraints and limited value given imminent closure of the programme), there is some evidence of SEP activity implementation in the latest available quarterly reporting. Some outcomes suggest activities may have helped focus attention on what needed to be institutionalised as Fleming Fund funding tapered: for example, government uptake of specific recurrent costs in Uganda and Zambia following the required reprofiling of workplans and budgets, and system-integration measures emerging from transition discussions (such as Uganda's absorption of specimen transport and equipment maintenance functions). Yet, despite efforts towards transition dialogues with ministries and embedding of core AMR functions, country case study evidence suggests surveillance budget allocations remain uncertain and likely marginal.

Legacy and learning products
Separately, the Fund commissioned a suite of legacy and learning products to codify evidence and experience from implementation (see Box 8 for details).

Overall assessment
Taken together, these late-stage actions show a sustained DHSC commitment to minimise avoidable loss of value from the Fund's investment, despite the constraints created by an unexpected closure decision and compressed timelines. However, the significance of these efforts remains somewhat unclear. On the one hand, securing resources to allow countries more time to develop national strategies to sustain surveillance capacity is essential. The short notice that countries received between the SR decision and the end of the Fund was insufficient for many to clarify their strategy and organise domestic resources, given how long these processes take. Many KIIs noted that the notice period was too short and that, with limited investment and more time, sustainable results could have been improved. On the other hand, the scramble to stitch together a range of mechanisms to take forward some aspects of the Fund exposes a lack of sustainability strategy undoubtedly undermined by the messaging around prospects for Phase 3 funding. In this context, the roundtables, bridging measures (including exploration of time-limited consumables support), TA/ISF shifts, and legacy products are best interpreted as mitigating and legacy-shaping actions – helpful and in some cases practically consequential (e.g., clarifying gaps and enabling donor conversations) – but not substitutes for earlier, more explicit and better-resourced sustainability design and planning.

A further focus of DHSC efforts has been to develop a set of 'legacy' products that codify learning from a decade of investment in the Fund; this will help ensure that insights from practical experience of implementing this ambitious programme are not lost to future policymakers and programme implementers. The MA and Itad have produced a number of learning products as summarised in Box 8. These will be stored on a knowledge hub hosted by TGHN.[55] DHSC has also commissioned a journal series entitled 'AMR surveillance: Ten Years On',

[54] The MA team noted, in reviewing this report, that this was because a) Workplan and Budget revisions were superseded by programme extension then closure planning, and b) grantees were also being asked to do more but with less budget – as the SR settlement for the final year was lower than expected.

[55] https://tghn.org/

which it is aiming to publish in the *Clinical Infectious Disease Journal* (CID)[56] by the end of 2026. The series examines Fleming Fund implementation and the wider AMR context, identifying what has been learned, what has changed, and what future priorities should be for policymakers, national governments, donors, and global health institutions seeking practical insights to guide AMR surveillance strengthening and AMR action in LMICs. Further Fleming Fund products will remain available as 'global public goods', including the online learning AMR modules developed by the Open University.

[56] https://academic.oup.com/cid

Box 8 List of products and journal series

Legacy products

DHSC commissioned the MA and Itad to produce a series of learning publications to further the legacy of the Fund. The publications listed below will be included among a larger collection of the Fleming Fund's learning products to be hosted on The Global Health Network website in a dedicated Fleming Fund Knowledge Hub. The Knowledge Hub will be available indefinitely to ensure sustainable access to learning from the programme after the Fleming Fund website is taken down.

Itad

In addition to the summative evaluation report, Itad is producing a set of learning products that build on headline evaluation findings, with lessons learned for funders of AMR programmes and those commissioning or managing large multi-country, multi-partner programmes. Themes covered by the papers are:

- designing and managing fellowship schemes
- making AMR surveillance work politically
- the quantifiable benefits of AMR surveillance
- designing for sustainability in an era of shrinking overseas development assistance.

The 'AMR Surveillance: Ten Years On' series of journal articles is made up of five papers on data production, data use, One Health, Kenya as a country example, and the future of AMR surveillance & AMR action. Itad is coordinating the development and delivery of the publication series, working closely with key partners.

MA

A series of reports capturing learning and achievements from the programme, particularly from Phase 2.

- Multi-country technical assistance approach for strengthening AMR Surveillance in LMICs: Lessons from the Fleming Fund
- Strengthening One Health governance for AMR surveillance: Lessons from the Fleming Fund
- Optimising AMR surveillance in animal health: A Case Study Review
- Promoting sustainability of the supply of reagents and consumables for AMR surveillance
- Sustaining AMR surveillance beyond the Fleming Fund
- The political economy of AMR surveillance systems in LMICs
- Value of surveillance: Fleming Fund Change Story 2 (covering Phase 2)
- The Fleming Fellowship Scheme: Transforming leadership in AMR
- The use of AMR and AMU data in clinical practice at Fleming Fund-supported human health sites *(in design)*
- The cost of sustaining AMR surveillance systems in Human Health: A case study from Zambia *(in design)*

4.4.6. Alternative surveillance approaches.

The Fund had started to think about different approaches to surveillance that may have been more sustainable. Global and national informants suggested this could involve greater focus on enforcement of policy and regulation, AMS/WASH, and integration with other disease surveillance programmes. Alternative surveillance models may provide a more appropriate cost–benefit balance through integration with existing activities and infrastructure, rather than relying on stand-alone, resource-intensive data collection approaches. For AH, MA studies examined alternative surveillance approaches that may be better suited to national budgets and routine animal-health mandates, by virtue of being more practical and cost-efficient. These include: slaughterhouse sampling, which provides access to large numbers of animals in centralised, easily reached locations and generates data with strong food-safety relevance; opportunistic sampling integrated into existing activities such as vaccination campaigns, disease-control missions, and movement or export certification; and wastewater surveillance, which can be deployed flexibly and used as a low-cost early-warning system for AMR trends at community level. These approaches reduce marginal costs by leveraging existing infrastructure, personnel and sampling flows, rather than requiring dedicated logistics, repeated mobilisation, and high volumes of consumables.

In addition to changes in sampling strategy, alternative configurations could also have involved different technology and delivery choices, including reduced reliance on high-cost automated laboratory equipment where throughput requirements do not justify it, greater use of manual or lower-cost techniques, and adjustments to the intensity and frequency of sampling. These options would not have removed sustainability constraints, but could have reduced cost per sample and improved alignment with routine system capacity.

Alternative surveillance models in HH have also been explored, but present sustainability challenges of their own. Experience with the PAHO model shows the value of regional coordination, shared procurement, and harmonised standards, in helping small Caribbean countries build AMR systems more efficiently than isolated national efforts. However, reliance on high-end technologies like MALDI-TOF, WGS, and regional training makes it costly and difficult to maintain. Overall, the model experiences common challenges within the Fleming Fund, highlighting the need for context-appropriate technology and long-term funding to be truly suitable for low-resource settings. Meanwhile, while survey approaches piloted in Malawi are promising in terms of rapidly generating representative national AMR estimates, they also have significant sustainability challenges: they are highly resource-intensive, requiring daily case-finding across hospitals, bespoke specimen transport, centralised processing at reference laboratories, extensive QA/EQA mechanisms, and external re-testing of isolates at expert laboratories – all of which depend heavily on donor funding and external TA, in contexts of limited government financing. This further reinforces the need for approaches that are embedded in health systems, and set up with infrastructure that have prospects of being sustained through national expenditure, while also recognising that this will take time and that interventions require long-term planning and commitment with a clear vision for sustainability from the outset. As recognised by the Fleming Fund MA, surveillance systems remain highly donor-dependent, especially for costly consumables, proprietary reagents, and externally funded technical support, which countries struggle to absorb once Fleming Fund funding ends.

Long-term sustainability likely requires a shift away from vertical, externally financed laboratory systems towards models where surveillance is generated through routine service delivery. In practice, this could involve integrating diagnostics within publicly funded clinical pathways, incorporating testing into reimbursed services under national health insurance

schemes where applicable, using pooled procurement mechanisms to reduce unit costs of consumables, and designing surveillance to use data generated through routine care rather than through stand-alone sampling exercises. It also requires early design choices about which elements of AMR action are both prioritised and realistically affordable within national systems, so that sustainability is built in from the outset. In some contexts with limited prospects for sustaining routine testing, alternative calibrations of effort – for example placing relatively greater emphasis on influencing practices, regulation, and antimicrobial use and stewardship – may have offered different, potentially more sustainable pathways to impact, though such shifts would have required earlier design choices.

4.5 EQ4: Data use

This annex presents the detailed evidence underpinning the findings on longer-term outcomes set out in Section 4.3 of the main report. It provides indicator definitions, figures, methodological notes and illustrative country-level and grant-level examples related to policy and regulatory change, practice and attitudes, national resourcing and financing, and governance and the enabling environment.

It is important to acknowledge that the MA team, which implemented the significant proportion of Fund activity, especially at country level, was not contractually committed to delivering long-term outcomes. Observations about progress towards these should be interpreted in this context, and in the context of the complex processes through which targeted changes take place. The ToC recognised that changes in policy, practice and attitude take time – foreseeing progress across Phase 2 and into an expected phase 3. It also reflects that it is not completely clear that these were useful outcomes to target – arguably they should be seen more as inputs from governments towards intended system changes.

Longer-term outcomes are tracked primarily using **internationally sourced indicators** incorporated into the Fleming Fund Results Framework, rather than Fund-specific performance measures. These indicators capture signals of policy adoption, practice, financing and governance, but are not designed to attribute change directly to the Fleming Fund.

As a result:

- indicators should be interpreted as **signals of outcome-level change** rather than measures of programme performance; and
- observed changes reflect a combination of Fleming Fund contributions and wider contextual drivers.

No Fund-level targets were agreed for longer-term outcomes (other than limited sustainability markers), reinforcing the need for cautious interpretation.

4.5.1. Changes in national policy and regulation

The Fleming Fund Results Framework does not address changes in national policy and regulation directly. The evaluation team collected data for this purpose from direct observation, using systematic searching for policy and regulatory instruments published or otherwise formally endorsed by national governments. Qualifying instruments were defined as official policies and legislation published by a country to address AMR, including Standard Treatment Guidelines (STG), Essential Medicines Lists (EML) and Infection & Prevention Control (IPC) guidelines, or their equivalents. In most cases, instruments updated and revised existing instruments rather than representing wholly new initiatives. . Identified instruments were classified by year (publication date), sector (HH, AH and OH) and by type (policy or regulation).

NAPs are excluded from this indicator as these primarily represent planning commitments rather than implementation-level policy or regulatory change and they are not, in themselves, a reliable signal of action against AMR. While NAPs represent an important component of national AMR policy – particularly in providing a framework for resource allocation and governance structures for coordination – their presence does not necessarily indicate implementation. This exclusion is technically appropriate, reflecting recognition that NAPs have often not translated

into sustained action, with limited implementation and resourcing observed across countries, and challenges particularly acute in LMICs.[57]

Nonetheless we identified a range of examples of changes in policy and regulation, as highlighted in Box 9, Figure 45 and Figure 46.

Box 9 Illustrative examples of observed policy changes

> Drawing upon AMR surveillance data, the Department of Drug Administration in **Nepal** has taken key decisions: to restrict the dispensing of reserve group antibiotics to hospital pharmacies only; and to put mandatory red line markings on the packaging of all antimicrobial drugs. These decisions align with global standards to regulate and control the misuse of antibiotics.
>
> Fleming Fund grantees supported the development of **Kenya**'s essential veterinary medicine list and treatment guidelines to help inform and promote the rational use of antibiotics.

Figure 45 below provides examples (not an exhaustive list) of the main instruments identified through this process, showing the form that country action against AMR is typically taking where applicable. The most common instrument found was HH EML (24 examples). Also, within HH policy, there were roughly equal numbers of IPC manuals and STG as well (15 and 13 examples respectively). Conversely, AH policy instruments tended to take the form of STG (8 examples), with fewer examples of EML or IPC manuals (2 and 1 respectively). Regulatory initiatives took less consistent forms and were harder to classify, with prohibition of certain drugs in AH the clearest single category (5 examples).

Figure 45: Examples of types of national action against AMR

HH policy	**HH regulation**
-Standardised treatment guidelines -Essential medicines lists -Infection prevention & control guidelines	-Tighter controls on reserve medicines and sale without prescription -Redline packaging
AH policy	**AH regulation**
-Veterinary EML -Biosecurity guidelines for production sectors (e.g. poultry) - National Standard Treatment Guidelines	-Tighter controls on priority medicines for humans -Restrictions on uses of antimicrobials in feed and/or for prophylaxis, growth promotion

Source: evaluation team data collection and analysis, grantee documents and other external sources

There were considerable limitations to this effort to measure national policy and regulatory change. The examples here are not exclusive. The focus on national instruments tended to under-represent changes in countries in which policy and regulation tend to occur at subnational levels of government (e.g. province level in Pakistan). The lack of clear delineating of what constitutes AMR-relevant policy and regulation was also an issue, for example with general professional initiatives (e.g. establishing regulatory frameworks for the veterinary profession)

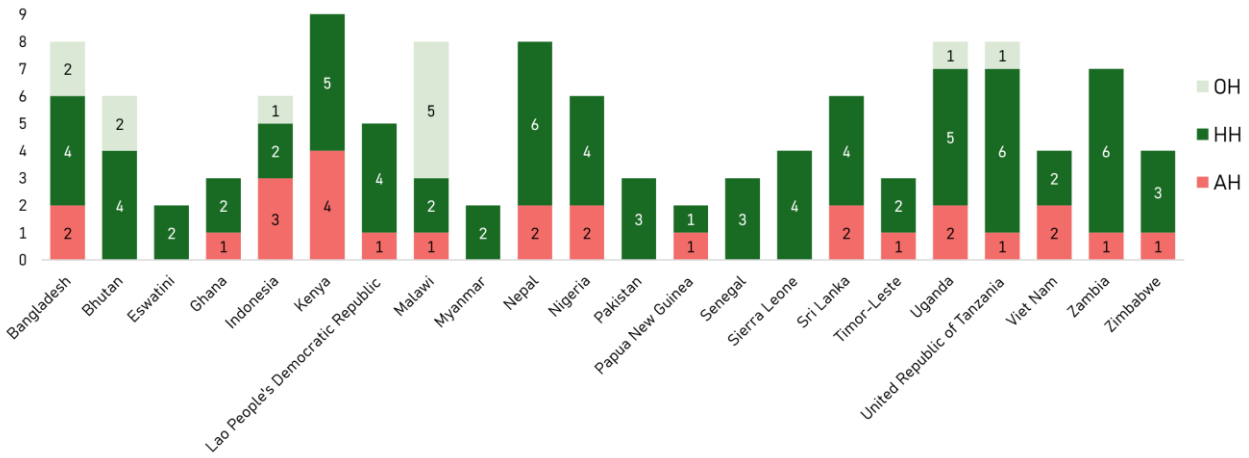
[57] WHO 2024; https://apps.who.int/gb/ebwha/pdf_files/WHA77/A77_5-en.pdf

excluded in some cases due to AMR connections and direct motivation being insufficiently clear, despite obvious conceptual connections.

As noted above, changes in country policy and regulation implicated a very broad range of contexts and factors. The effort surfaced other initiatives relevant to change at this level which are worth mentioning as possible reference points for comparison or contrast. One is the United States Agency for International Development (USAID) Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program, which was credited in some HH STG and EML publications with having supported the effort.[58] Another is the global effort to phase out colistin use in food-producing animals,[59] which is the clearest available explanation for many AH regulation efforts especially earlier in the Fleming Fund implementation period.

As mentioned in the main report, policy and regulatory instrument counts varied across countries. Figure 46 presents the number of qualifying policy and regulatory instruments identified across Fleming Fund focus countries between 2018 and 2025. It was only possible to locate one or two examples in some countries; whereas other countries presented up to eight separate qualifying examples.

Figure 46: Qualifying AMR policy and regulatory instruments in Fleming Fund countries, 2018–2025

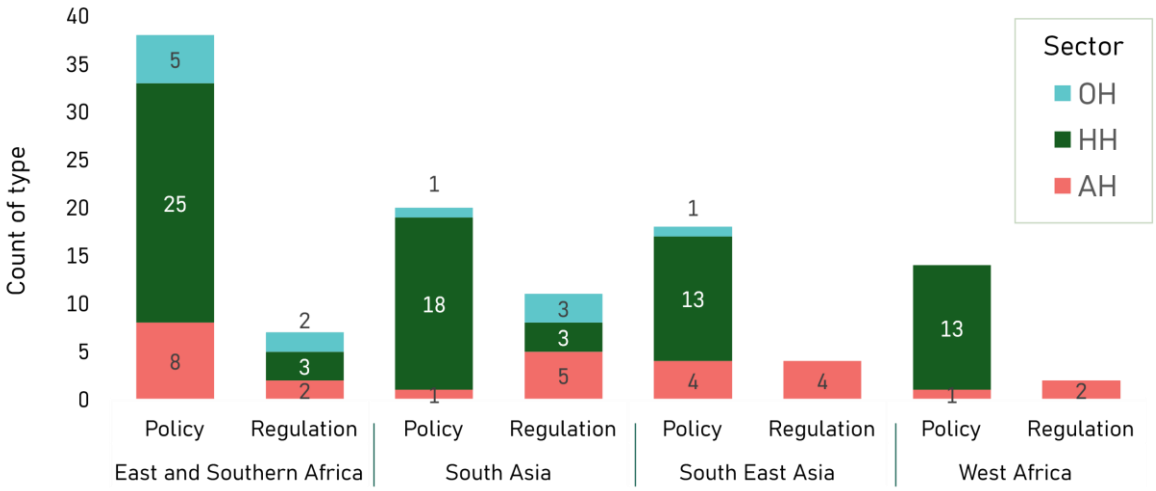


Source: evaluation team data collection and analysis, grantee documents and other external sources

[58] https://www.mtapsprogram.org/

[59] Ahmed, M. O., Abouzeed, Y. M., & Daw, M. A. (2025). Global initiatives to phase out colistin use in food-producing animals. Open Veterinary Journal, 15(2), 533–540. https://doi.org/10.5455/OVJ.2025.v15.i2.4

Figure 47: Distribution of 2018-2025 Fleming Fund country instruments across programme regions, broken down by type and sector



Source: evaluation team data collection and analysis, grantee documents and other external sources

4.5.2. Changes in practice (facility level)

4.5.2.1. Definition of clinical engagement

Within the Fleming Fund, **clinical engagement** refers to the active involvement of clinical staff in the establishment, use and functioning of bacteriology and AMR surveillance systems, with the aim of improving patient care and the relevance and use of surveillance data.

This includes:

- clinician engagement in sample selection and submission;
- interpretation and feedback of laboratory results;
- use of antibiograms and surveillance outputs; and
- integration of AMR data into IPC and AMS processes.

Clinical engagement is distinct from, but may contribute to, behaviour change.

4.5.2.2. Evidence of practice-level change

Results Framework reporting and qualitative evidence (See Box 10 for illustrative examples) indicate progress in supporting changes in practice in terms of:

- increased production and dissemination of facility-level outputs such as antibiograms;
- stronger linkages between laboratories, IPC committees and AMS structures in some facilities; and
- improved packaging of surveillance outputs for clinical audiences.

This is likely due to a combination of a) limited time for clinician engagement (CE) efforts to lead to these types of results; b) limits in availability of routine monitoring systems, which rarely measure practice or attitudes directly; c) inability to address gaps in data through evaluation of

country-level work because site visits were not resourced for this summative process. Evidence is therefore strongest for **enabling mechanisms** rather than confirmed behaviour change.

Box 10 Illustrative examples of observed practice changes

> Fleming Fund support for AMR monitoring in the neonatal unit at Guido Valadares National Hospital (HNGV) in **Timor-Leste** led to the detection of a nosocomial outbreak of Phytobacter ursungii in 2025. Forty-two neonates were infected, with at least 10 fatalities. Outbreak response activities were conducted jointly by the clinical infectious diseases team and the Neo Sepsis team, with support from the Country Grantee. Subsequently, the number of cases reduced from 20 in April to five in May, and only one in June.
>
> AMS committee meetings were held in 10 AMR surveillance sites in **Tanzania** during June 2025. Point prevalence survey findings were shared with hospital management. Committees noted the remarkable improvement in compliance with surgical prophylaxis guidelines compared to previous point prevalence survey reports.
>
> Findings from clinical engagement assessments in Sindh and Gilgit Baltistan hospital in **Pakistan** (using AMR Stewardship, and Infection Prevention Control indicators) have been used to update facility SOPs, guide staff training and standardise clinical governance approaches
>
> For further information on clinical engagement, see the MA's learning product: 'Antimicrobial resistance (AMR) and antimicrobial use (AMU) data use in clinical practice at Fleming Fund-supported human health sites (April 2026)', available on The Global Health Network (https://tghn.org/)

A Management Agent Learning Product on Clinical Engagement[60] draws on programme reporting through the site Planning & Monitoring Tool (P&MT) to examine various aspects of the 'Clinical Engagement' effort for improved interactions between laboratories and clinicians was implemented at supported sites.

For example, it notes that about 75% of HH sites reported having an AMS committee, in 2024, increasing to 78% by the end of 2025. Improvements were reported in the extent to which AMS committees were meeting regularly and changes in the extent of multi-disciplinary specialties on the committees is expected to strengthen committees' awareness, reach and usefulness. Similarly for IPC committees, nearly 95% of Fleming Fund-supported HH sites reported having an IPC committee in 2024, and the proportion of these meeting regularly improved slightly from 56% to 62% by late 2025.

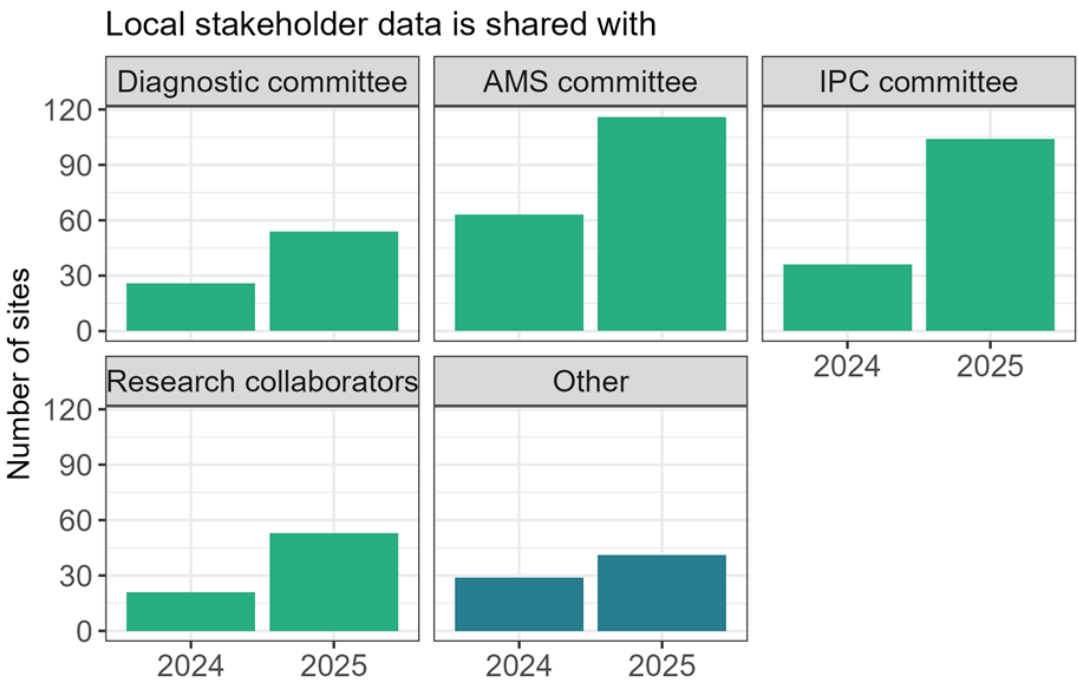
4.5.2.3. Data sharing at the facility level

Programme data supports the claim that there were improvements in facility-level mechanisms intended to support the use of laboratory data, including IPC and AMS structures, alongside improvements in how outputs such as antibiograms are packaged and disseminated (see main report, Section 4.3.2).

Figure 48 below shows how rates of reporting of data sharing with local AMS and IPC committees respectively doubled and tripled over 2024-2025.

[60] AMR and AMU data use in clinical practice at Fleming Fund-supported human health sites (April 2026)

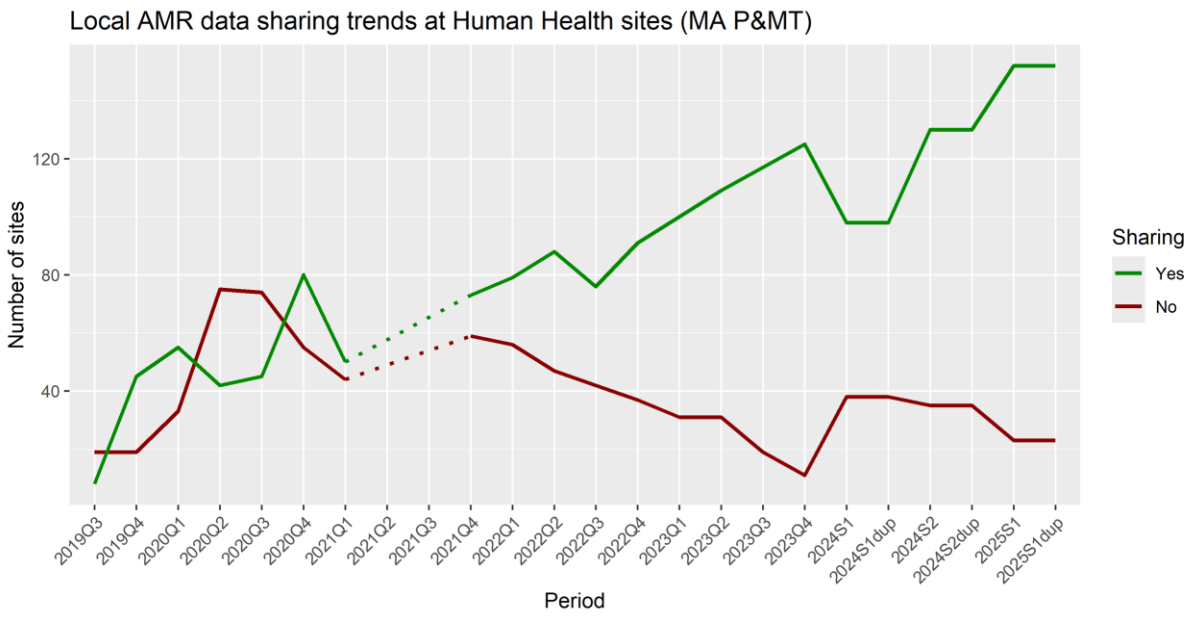
Figure 48: Site-level data sharing



Source: MA learning product on clinical engagement

The evaluation team's independent analysis of P&MT data (Table 25) supports claims that reporting of local data sharing improved. Figure 49 shows trends over reporting periods (adjusted for consistent quarterly representation), showing a clear but uneven increase in positive reporting of local data sharing from 2022 onwards.

Figure 49: Local AMR data-sharing trends at HH sites



Source: MA site planning & monitoring tools

Table 25: Percentage of sites where data are shared with local stakeholders

Source: MA Surveillance Tool, questions 5a6 (HH) and B6.3.3 and B6.3.5 (AH)

	HH					AH									
	% sites where AMR data are shared with local stakeholders					% sites with guidelines in place for sharing results with the sample source					% sites where AMR data are shared with local or international stakeholders				
	2022	2024 S1	2024 S2	2025 S1	2025 S2	2022	2024 S1	2024 S2	2025 S1	2025 S2	2022	2024 S1	2024 S2	2025 S1	2025 S2
Indonesia	77	77	94	94	93	33	71	83	50	67	67	57	100	83	83
Kenya	100	–	100	100	100	100	–	67	89	89	100	–	67	56	56
Nepal	100	100	93	88	100	0	25	14	25	22	88	100	100	100	89
Nigeria	55	82	82	91	73	71	57	67	67	60	43	71	83	83	100
Pakistan	55	80	92	92	92	18	67	100	100	100	18	0	100	83	83
Bangladesh	17	67	100	100	100	0	33	86	100	73	33	33	100	100	73
Bhutan	80	60	100	80	100	50	100	25	25	25	50	25	0	25	25
Eswatini	100	67	100	100	100	100	100	100	50	50	0	100	100	100	75
Ghana	–	62	88	88	75	–	33	0	33	20	–	0	100	100	100
Laos	27	100	100	100	100	33	–	0	0	50	33	–	33	25	100
Malawi	100	88	80	90	100	100	0	0	0	75	100	100	75	100	75
PNG	0	100	100	100	100	50	0	0	0	0	0	0	0	0	0
Rwanda	–	–	100	60	67	–	–	–	–	100	–	–	–	–	100
Senegal	100	–	25	33	60	100	–	0	–	0	100	–	50	–	83
Sierra Leone	0	–	0	0	0	100	–	100	0	100	0	–	0	100	100
Sri Lanka	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tanzania	86	83	100	100	100	100	67	83	83	100	100	67	67	83	83
Timor-Leste	29	57	100	100	100	100	100	0	100	100	100	100	0	100	100
Uganda	100	79	93	93	93	100	14	43	29	57	86	43	86	100	86
Vietnam	90	95	95	95	100	0	0	0	25	50	100	67	67	50	50
Zambia	100	100	100	89	78	100	40	60	100	100	100	100	80	100	100
Zimbabwe	83	–	60	71	71	100	–	100	71	71	83	–	100	100	100

4.5.2.4. Animal-health practice pathways

Practice-change pathways in AH differ structurally from HH:

- practitioner groups are more diffuse;
- surveillance relies heavily on active sampling; and
- surveillance outputs are less directly tied to routine treatment decisions.

Where practice change is observed, it often depends on local leadership, continuity of support and alignment with economic or regulatory incentives, rather than surveillance data alone.

4.5.3. Changes in funding decisions

While objectives to influence funding for AMR came into focus during Phase 2 (including through the strategic shift on making the economic case for AMR), and there was therefore limited implementation time to advance this agenda, there were some early signs of progress (see Box 11, also discussed in Section 4.2.1, and Table 26 to Table 28).

Box 11 Illustrative examples of observed changes funding decisions

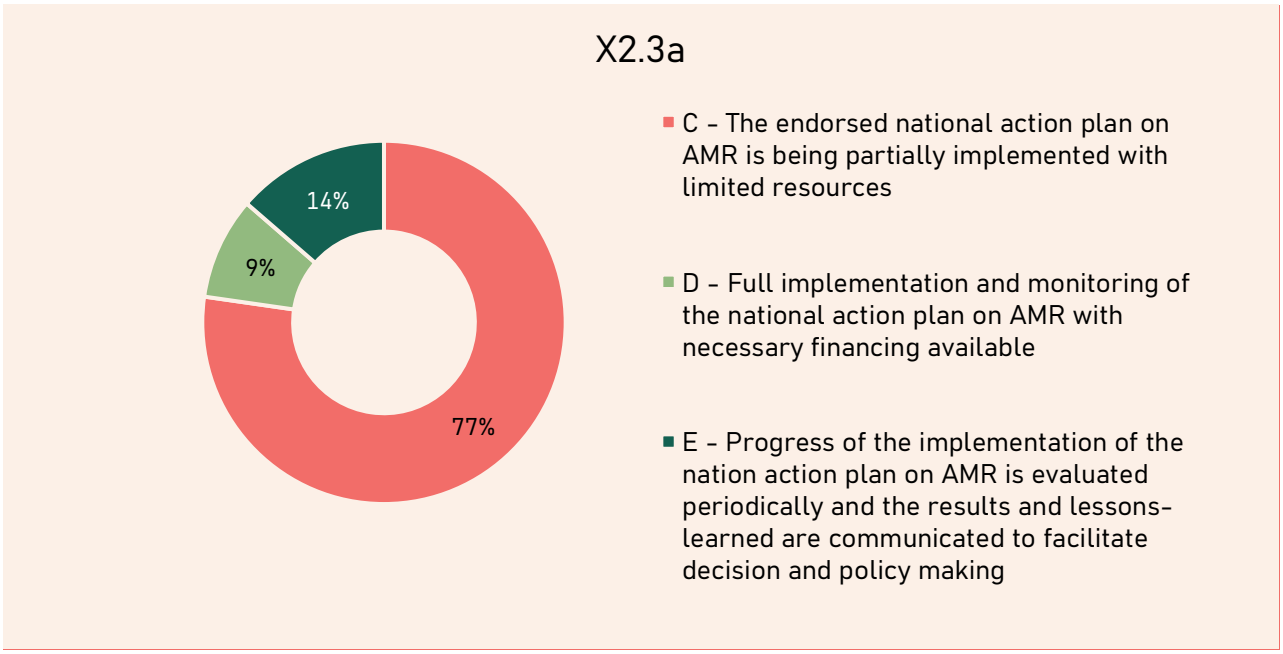
> Data were shared with Parliamentary Forum on Antimicrobial Resistance (AMR) in **Uganda**, engaged with the Health and Agriculture Committees. The Health Committee recommended: allocating dedicated funds to combat AMR; focusing on surveillance and AMS; and regulating the access and use of antimicrobials.

4.5.3.1 Financing & implementation indicators

Country reporting through the Tracking AMR Country Self-Assessment Survey (TrACSS) supports the claim that there are persistent constraints in the implementation and financing of national AMR plans (see main report, Section 4.3.3).

TrACSS question 2.3a from 2025 asked countries to grade 'country progress with implementation of monitoring of a national action plan on AMR'. Certain response levels included comment on financing, including level C ('partially implemented with limited resources') and level D ('full implementation… with necessary financing available'). Figure 50 below shows that the large majority of Fleming Fund countries (17 out of 22) reported at level C in 2025, in other words reported partial implementation with limited resources.

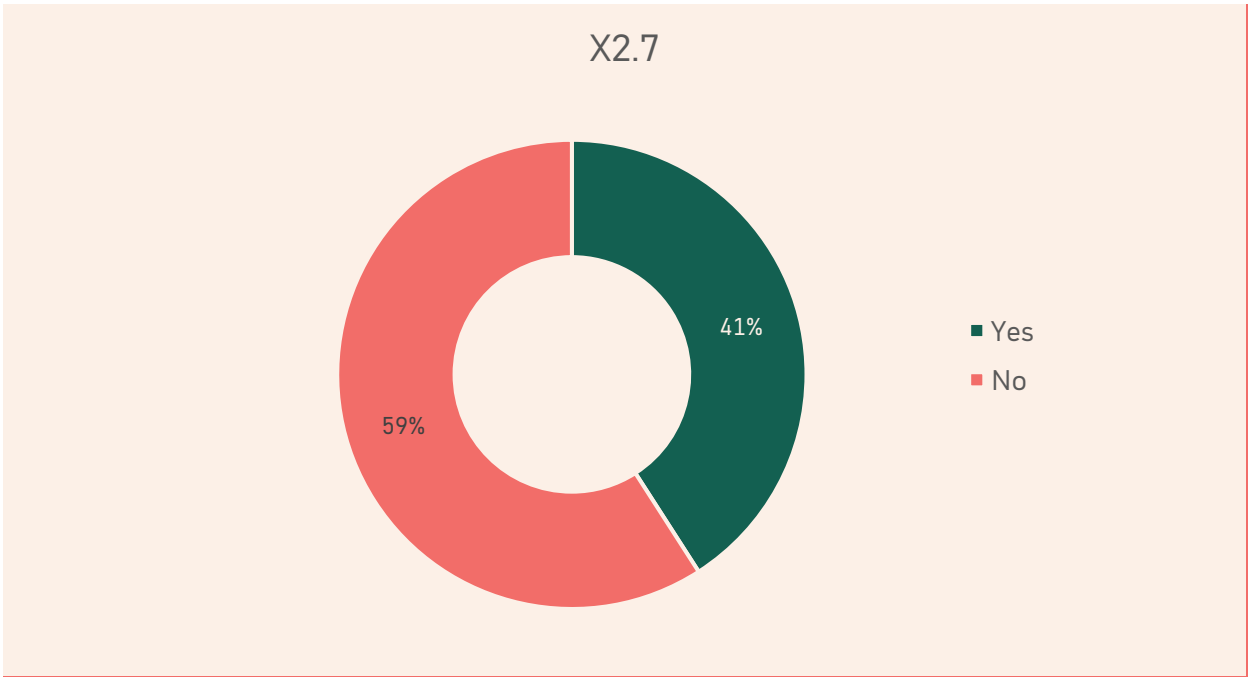
Figure 50: Country progress with implementation and monitoring of a national action plan on AMR



Source: 2025 TrACSS question 2.3a responses by Fleming Fund-supported countries

TrACSS question 2.7 from 2025 asked countries: 'Has your country developed an investment/economic case for implementing the national action plan on AMR to support resource mobilisation (domestic and external funding) and advocacy?'. Figure 51 below shows that the majority of Fleming Fund countries (13 out of 22) responded 'No' to this question.

Figure 51: 2025 TrACSS – Countries with economic case for implementing AMR NAPs



Source: 2025 TrACSS question 2.7

Overall trends indicate persistent constraints:

- limited domestic financing for routine surveillance inputs (e.g. reagents and consumables);
- uneven development and uptake of investment cases; and
- weak integration of AMR financing into national budgeting cycles.

Stakeholder interviews consistently highlight the risk that, without replacement financing, surveillance activity could decline towards pre-Fund levels in some contexts. These risks are structural and largely outside the Fund's direct control, reflecting broader fiscal and political constraints.

Table 26 Results framework sustainability indicators

#	Sustainability	Baseline status 2022	2023 target	2023 status	2024 target	2024 status	2025 target	2025 status	Change (2022-25)	Interpretation notes
15	Number of countries with a costed AMR surveillance strategy.	13	13	11	15	14	20	17	4	Year-on-year progress after 2022. All target attainment misses were 'near misses' (within 10% of prospective target). Note, FF had 'influence' but not 'control' of this indicator.
16	Number of countries with commitments to fund AMR surveillance.	14	14	13	16	20	19	21	7	Year-on-year progress after 2022. The missed target in 2024 was a near miss (by 1 country). Remarkably, the predictions were reasonably accurate given this measures country decisions /commitments – not something the FF has control of.
17	Number of countries where government commitments have been translated into actual support for AMR surveillance.	14	14	10	14	19	19	19	5	Year-on-year progress after 2022. The missed target in 2023 was a near miss. Remarkably, the predictions were reasonably accurate given this measures country decisions /commitments – not something the FF has control of

Source: Results Framework indicators #15, #16, and #17

Table 27: Country disaggregated Results Framework sustainability indicators

	Costed AMR surveillance strategy			*Commitments to fund AMR surveillance*			*Actual support for AMR surveillance*		
	2022	**2024**	**2025**	**2022**	**2024**	**2025**	**2022**	**2024**	**2025**
Indonesia	1	Yes	Yes	1	Yes	Yes	1	Yes	Yes
Kenya	1	Yes	Yes	0	Yes	Yes	1	Yes	Yes
Nepal	1	Yes	Yes	1	No	No	1	Yes	Yes
Nigeria	1	Yes	Yes	1	Yes	Yes	1	Yes	Yes
Pakistan	0	No	Yes	1	Yes	Yes	1	Yes	Yes
Bangladesh	1	Yes	Yes	1	Yes	Yes	1	Yes	Yes
Bhutan	0	No	No	0	Yes	Yes	1	Yes	Yes
Eswatini	1	Yes	Yes	1	Yes	Yes	1	Yes	Yes
Ghana	0	No	No	1	Yes	Yes	1	Yes	Yes
Laos	1	No	Yes	1	No	No	0	No	No
Malawi	0	Yes	Yes	0	Yes	Yes	0	Yes	Yes
PNG	1	No	No	1	Yes	No	1	Yes	No
Rwanda	n/a	No	Yes	n/a	Yes	Yes	n/a	Yes	Yes
Senegal	1	Yes	Yes	1	Yes	Yes	0	Yes	Yes
Sierra Leone	1	Yes	Yes	0	Yes	No	0	Yes	No
Sri Lanka	n/a	Yes	Yes	n/a	Yes	Yes	n/a	Yes	Yes
Tanzania	1	Yes	Yes	0	Yes	Yes	0	No	Yes
Timor-Leste	0	No	No	1	Yes	Yes	1	Yes	Yes
Uganda	1	Yes	Yes	1	Yes	Yes	1	Yes	Yes
Vietnam	0	No	No	1	Yes	Yes	1	Yes	Yes
Zambia	1	Yes	Yes	1	Yes	Yes	1	Yes	Yes
Zimbabwe	1	Yes	Yes	1	Yes	Yes	1	No	Yes

Source: Results Framework indicators #15, #16, and #17

Table 28: Summary status of resourcing for AMR in five country case studies

Country/ source	Domestic/ national*	Sub-national*	User fees/ national insurance*	Donor/ international*
Indonesia	AMR included in 2024–2029 National Development Plan and hospital accreditation standards; partial federal funding for core functions, with reliance on	Highly variable capacity and resourcing across provinces.	Not covered by national insurance; costs borne by hospitals (charged or subsidised). New federal hospital funding programme approved; implications uncertain.	Continued strong donor dependence; funding remains relatively robust with new donors, but insufficient to fully offset Fleming Fund gap.

	provincial and hospital resources.			
Kenya	AMR budget lines referenced in ministerial workplans but not formalised or allocated; progress stalled.	Variable county leadership and engagement; dependent on national prioritisation.	Integration of lab services into Social Health Authority under discussion via HTA Kenya; no agreed model or costing.	Shrinking and shifting donor landscape; some ongoing WB, ICARS, MPTF and bilateral support, with move towards smaller projects and new funders (e.g. MSF).
Nepal	Costed NAP endorsed; small and restrictive federal AMR budget lines emerging; continued competition for resources and need for MoF lobbying.	Uneven and limited provincial budget lines post-NAP; largely awareness activities or small pilots.	Possible inclusion of microbiology tests in National Health Insurance scheme; costs and allocations unclear.	Dialogue ongoing with Pandemic Fund, STRIDES, Epic and multilateral partners (IAEA, ACT); funding not yet secured.
Nigeria	Costed NAP 2.0 adopted; federal agencies (e.g. NCDC, NAFDAC) have included AMR budget lines, but funding release and prioritisation remain inconsistent.	Limited state-level funding to date; advocacy underway as states have greater fiscal autonomy.	Subsidised user fees applied but deter access; insurance reimbursement under review, with proposed rates likely below cost.	Main funding source; Fleming Fund dominant, complemented by WHO, RKI, research partnerships and emerging WB GHSA funding.
Pakistan	PC-1 funding completed with no confirmed continuation. NAP 2 launched (Jan 2026) but financing unclear; core functions may persist but trained human resources (HR) not retained.	Uneven progress; some provinces and autonomous labs sustain core functions. AMR secretariats established but heavily donor-dependent and vulnerable post-Fleming Fund.	Diagnostics largely excluded from insurance packages; Sehat Card relaunched but outpatient microbiology coverage remains limited.	Sharp decline in donor funding; Fleming Fund dominant, FAO support ending (2026). Pandemic Fund engagement uncertain; no earmarked AMR funding evident.

Source: Evaluation team data collection and analysis, covering document review and country-level KIIs

4.5.4. Governance and the enabling environment

Consistent longer-term outcomes are observed in strengthened governance arrangements and the wider enabling environment – namely the conditions that support and sustain action on AMR, including coordination mechanisms, norms, platforms, communities of practice and political attention. Evidence indicates that Fleming Fund support has contributed to increased use of AMR data within public institutions, particularly for administrative decision-making, with more limited but emerging influence on policy and regulatory processes (see Box 12 for illustrative examples).

Box 12 illustrative examples of MA support to development of AMR NAPs

The Fleming Fund provided technical input to the AMR NAP 2020–2024 and the drafting of the NAP 2024-2029 in **Indonesia**. The Country Grantee also supported discussions hosted by Indonesia's Presidential Advisory Council and contributed to momentum toward a Presidential Regulation (Perpres) on AMR.

The Fleming Fund supported the development and endorsement of sectoral National Action Plans (NAPs) in **Vietnam**, including both the Human Health NAP and the Animal Health NAP for the period 2026–2030.

The programme supported the development of key technical and policy documents in **Ghana**, including the One Health Antimicrobial Stewardship (AMS) Strategy, situational analysis to inform National Action Plan (NAP 2) development and national surveillance strategies.

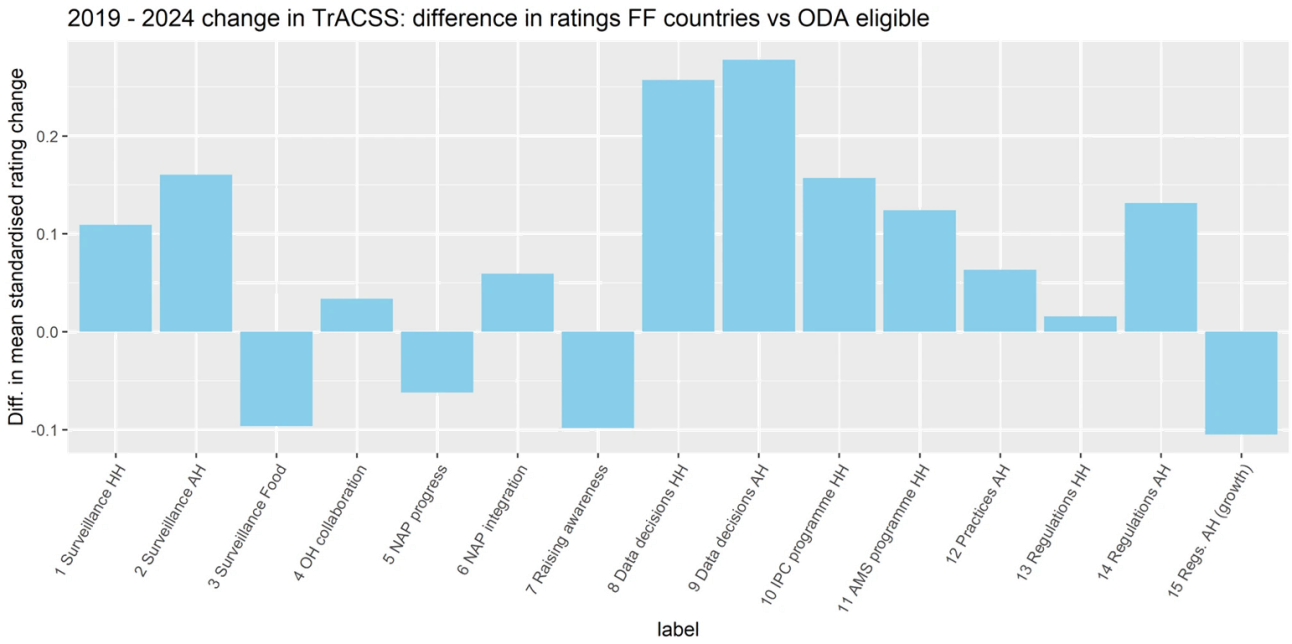
4.5.4.1 TrACSS analysis – country self-reporting

Section 4.3.4 of the main report observes that the strongest and most consistent longer-term outcomes were in governance arrangements and the enabling environment – or conditions that make action possible.

As observed in that section, peer-reviewed evidence is available to support the claim that the Fleming Fund has had an impact on surveillance-related governance in supported countries.[61] Figure 52 below is replicated from this study; it shows the apparent difference between Fund-supported and other ODA-eligible studies across a range of relevant TrACSS responses. In other words, it shows how Fund-supported countries have reported relatively positive or negative change over time in various categories relating to AMR surveillance efforts; positive bars suggest categories of relative programme impact. Categories 8 and 9 relate to the use of surveillance data for decision-making at the national level, and show the largest apparent practical differences.

[61] Drake, A., Sassoon, I., Armitage, J., Abbas, S., Maudling, R., Gupta-Wright, A., Serrano, A., Shafa, A., & Shorten, T. (2026). Country governance of antimicrobial resistance (AMR) surveillance: Observations on global progress and aid programme effectiveness using data from the Tracking AMR Country Self-Assessment Survey (TrACSS). *Globalization and Health*. https://doi.org/10.1186/s12992-025-01179-4

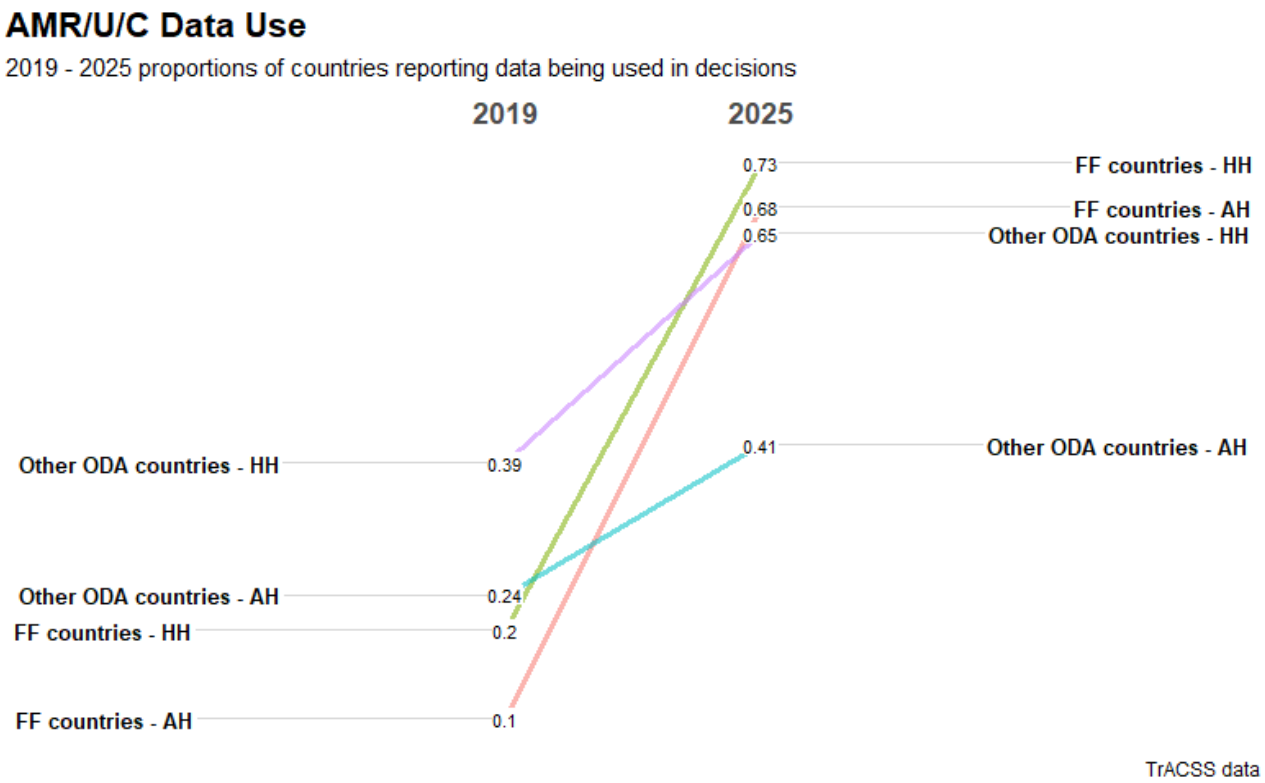
Figure 52: Change scores of Fleming Fund-supported countries vs other ODA-eligible countries



Source: Drake et al, 2026 presenting analysis of TrACSS data

This analysis of country self-reporting on data use for decision-making was updated for the present report, to confirm the persistence of observed effects. below confirms that practical differences continue to apply between Fleming Fund and other ODA-eligible countries in terms of tendency to report that data is being used for decision-making at the national level. The slopes for Fleming Fund countries are steeper for both sectors, showing stronger positive change in the proportion of countries reporting that data is being used for decision-making at the national level. Given variance in observed numbers of policy and regulatory instruments across countries, decisions may be leading towards other forms of action or possibly informing inaction. However, TrACSS data trends are an encouraging sign that Fleming Fund investments in surveillance data are known and appreciated by national policy makers.

Figure 53: Slopegraph showing proportions of countries reporting positive data use for decision-making at national level between 2019 and 2025, Fleming Fund vs other ODA countries across HH and AH



Source: TrACSS

4.5.4.2 Global and regional governance effects

The strongest and most consistent outcome-level effects relate to governance and the enabling environment for AMR action. Evidence includes:

- strengthened global and regional norms, standards and guidance;
- increased participation in global surveillance platforms; and
- reinforced professional networks and communities of practice.

These effects support coordination, legitimacy and professional capability, even where national-level policy, practice or financing outcomes remain uneven.

4.5.4.3 Direct Grants: contribution to the enabling environment

Direct Grants made a substantial contribution to the global enabling environment for AMR action by supporting global and regional public goods rather than uniform country-level outcomes. See Annex 2.2 for more details. Key contributions include:

- strengthening global surveillance and data-sharing platforms (**GLASS**, **InFARM**, **ANIMUSE**);
- developing standards, tools and analytic approaches (such as WHO AWaRe[62]); and

[62] https://www.who.int/teams/surveillance-prevention-control-AMR/control-and-response-strategies/AWaRe

- supporting coordination, stewardship practice and LMIC participation in global AMR forums.

These contributions underpin many country-level intermediate outcomes and shape expectations about credible AMR action internationally.

4.5.5. Fleming Fund contribution to national policy and regulation change

The summative evaluation conducted case-based contribution analysis to assess the plausibility of the Fleming Fund's contribution to specific policy or regulatory changes. The analysis focused on five purposively selected case study countries and therefore does not provide a representative assessment of contribution across the full portfolio. It is intended to illustrate plausible pathways of influence where change was observed, rather than to quantify overall contribution or to test all portfolio-level explanatory factors.

Findings

Across the five case study countries examined, at least one policy or regulatory change occurring within the last three years (2023–2025) was identified in four cases to which the Fleming Fund plausibly contributed. These findings are not intended to be generalisable across all Fleming Fund-supported countries, as the summative sample was purposively selected to include contexts where contribution at this level was more likely to be observable. The identified changes span both policy and regulatory domains and across sectors, including one HH policy, one HH regulation, one AH policy and two AH regulations. With the exception of Pakistan – where a provincial-level change was considered appropriate given the devolved governance system and the size and significance of Punjab – all changes occurred at the national level. Analysis of the drivers underpinning these changes indicates that, with one exception, they were located primarily in the domains of capacity and norms, with the Fleming Fund contributing to most of the relevant drivers in each case. In all instances, the Fund made a vital or important contribution to at least one of the drivers behind the observed change. The evidence further suggests that Fleming Fund contributions were more consistently strong in relation to regulatory change than to policy change, reflecting the Fund's particular influence on demonstrating the urgency and seriousness of AMR, strengthening professional understanding and technical skills, and fostering committed networks of actors engaged with the AMR agenda.

The table overleaf provides detail on individual cases, their significance, drivers of change and the Fund's contribution to those drivers.

Table 29 Contribution analysis results

Country	Type	Sector	Year	Change	Significance	Top 3 drivers (from list)	Fleming Fund contribution
Indonesia	Regulation	AH	2025	Ban the use of quinolone antibiotics in animal production	The process to regulate and ban quinolone use has been driven by strong surveillance evidence and active engagement with the private sector. Data from 2018–2020 showed that after colistin was restricted, quinolone use and resistance increased, alongside higher imports of quinolone raw materials, raising concerns among policymakers. In response, the government convened consultations with animal drug manufacturers, pharmaceutical producers, poultry companies, and industry associations, presenting the surveillance findings and discussing the need for action. This collaborative process helped build understanding and consensus across sectors, including those directly affected by the regulation. The ban, signed off in early 2026, is a key example of how surveillance data can directly inform policy and how meaningful private sector involvement can support the development and implementation of regulations to address AMR.	Norms 1. It was possible to demonstrate that AMR is a serious & urgent problem	Important
						Capacity 2. Professionals in the public health system gained understanding of AMR and skills required to address it.	Important
						Capacity 5. Coalitions formed around AMR as an issue, connections were made between groups or the group of committed people grew significantly in size.	Limited

Kenya	Policy	HH	2024	Development and publication of the National Antibiotic Use Guidelines on Empiric Treatment and Surgical Prophylaxis (2024) by the Ministry of Health, for use in clinical settings across the country	The guidelines are the first nationally endorsed policy on antibiotic use in Kenya. Prior guidance has focused on management of common conditions at primary care level, without being informed by AMR data. The 2023 guidelines are the first to leverage an increased evidence base on resistance burden and trends at local/facility levels.	Capacity 2. Professionals in the public health system gained an understanding of AMR and skills required to address it.	Vital
						Norms 1. It was possible to demonstrate that AMR is a serious & urgent problem	Vital
						Capacity 4. There was a sense of a committed group of people who cared about AMR as an issue.	Some
Kenya	Policy	AH	2025	Guidelines for Prudent Use of antibiotics in Animals 2025	The Ministry of Livestock and Agricultural Development published the second version of AMU guidelines in animal health, revising the 2018 version to provide greater specificity and enforceability, giving AH professionals practical and evidence-based direction on AMU to ensure adherence to the NAP in the AH sector.	Support 2. There was significant public pressure for something to be done to address AMR.	None
						Capacity 4. There was a sense of a committed group of people who cared about AMR as an issue.	Important

						Norms 3. Other issues were understood in ways that highlighted the importance of AMR.	Some
Nepal	Regulation	HH	2023	Ban of 103 Antibiotic Combinations – Department of Drug Administration: DDA prohibited manufacture/import/sale of 103 irrational fixed-dose combination (FDC) antibiotics, explicitly citing WHO non-recommendation	The 2023 ban on 103 irrational antibiotic combinations is a significant achievement in Nepal because it represents a comprehensive clean-up of the pharmaceutical market. By prohibiting these drugs across the entire supply chain, including manufacture, import, sale, and clinical use, DDA has directly removed evidence-free drug combinations that contribute to the development of AMR.	Norms 1. It was possible to demonstrate that AMR is a serious & urgent problem.	Important
						Capacity 4. There was a sense of a committed group of people who cared about AMR as an issue.	Important
						Capacity 6. People who cared about AMR found that they had access to people or processes deciding about relevant actions.	Important

Pakistan	Regulation	AH	2025	Using data from the Provincial Diagnostic Laboratory, the Punjab government excluded all resistant antimicrobials from veterinary procurement for 2024/2025 – enabling more responsible AMU in hospitals and livestock stations	Using surveillance data generated by the Provincial Diagnostic Laboratory, the Government of Punjab's decision to exclude all antimicrobials with documented resistance patterns from veterinary procurement for 2024/2025 represents a significant step towards institutionalising evidence-based antimicrobial stewardship. This action demonstrates the translation of laboratory data into concrete policy reform, ensuring that public funds are not used to procure ineffective medicines while promoting more rational and responsible AMU across veterinary hospitals and livestock stations. By addressing AMU in the animal sector, the regulation also strengthens Pakistan's OH response to AMR, reducing the risk of resistant pathogens circulating between animals, humans and the environment. Overall, the measure reflects strengthened governance, improved accountability, and growing political commitment to combating AMR through systemic procurement reform rather than ad hoc clinical guidance.	Capacity 1. There was a general, growing sense that more should be done about public health & wellbeing.	Important
						Norms 1. It was possible to demonstrate that AMR is a serious & urgent problem.	Important
						Capacity 2. Professionals in the public health system gained understanding of AMR and skills required to address it.	Important

Source: Evaluation team data collection and analysis, covering document review and country-level KIIs

4.6 EQ6 Value for Money

This annex provides the detailed evidence and supporting analysis underpinning the value-for-money assessment presented in Section 4.5 of the main report. It documents VfM-relevant evidence on economy, efficiency, effectiveness and equity (4Es) across the Fleming Fund portfolio, including cost control measures, delivery-model implications, coordination costs and equity-related constraints.

The annex should be read alongside Section 4.5, which presents the evaluative synthesis and overall VfM judgement. Relevant material is also presented in the MA Learning Products listed in Box 8.

VfM was assessed at **portfolio level**, recognising variation across countries, sectors and delivery modalities (country, regional and DGs). Evidence draws on:

- financial and budgetary reporting;
- Results Framework data;
- country case studies;
- Phase 1 and Phase 2 evaluation findings; and
- key informant interviews (KIIs) with DHSC, the MA and grantees.

The assessment focuses on how resources were managed and translated into results, rather than on granular unit cost comparisons, which were not defined at Business Case stage.

4.6.1. Economy: cost control and procurement

Budget management and cost control

Across both phases, the Fleming Fund demonstrated strong budgetary control. Budget reviews and reprogramming processes reallocated resources away from indirect and management costs towards operational delivery. Several grants reported savings relative to initial allocations, reflecting active financial management.

Management Agent–managed grants benefited from structured VfM systems and reporting requirements, providing stronger visibility over expenditure and cost control than was consistently available for directly managed grants.

Centralised procurement

Centralised procurement of laboratory equipment generated economies of scale. Bulk purchasing of automated laboratory technologies resulted in significant cost savings, including multi-million-euro reductions relative to individual procurement approaches.

However, these gains need to be interpreted alongside affordability risks. Stakeholders consistently highlighted that:

- imported consumables remain expensive and volatile in price;
- maintenance contracts for automated equipment are costly; and
- procurement lead times can be long and unpredictable.

These factors affect affordability and continuity of operations, even where initial capital costs were well controlled.

4.6.2. Efficiency: delivery model and transaction costs

Portfolio architecture and coordination costs

Efficiency was constrained by the scale and complexity of the Fleming Fund delivery architecture. Phase 2 involved a large portfolio of country, regional, global and DGs operating concurrently in many of the same countries.

This breadth reflected the technical and institutional complexity of AMR surveillance, but also:

- increased coordination demands;
- raised transaction costs for partners and governments; and
- complicated sequencing of activities across grants.

Delays, reprogramming and effective implementation time

Repeated delays related to approvals, contracting and reprogramming materially reduced effective implementation time. This was particularly evident for RGs intended to deliver Phase 2 strategic shifts, many of which became operational late.

Multiple rounds of no-cost extensions, redesigns and approval processes increased transaction costs and disrupted sequencing between portfolio components. While some reprogramming was necessary in response to external shocks (including COVID19 and ODA reprioritisation), the scale of the portfolio meant that redesign and approval processes were often undertaken in parallel, amplifying opportunity costs.

These efficiency constraints were driven primarily by **portfolio-level design and governance arrangements**, rather than weak delivery performance at grant level.

4.6.3. Effectiveness from a VfM perspective

Alignment between expenditure and outcomes

From a VfM perspective, effectiveness was constrained relative to ambition. The Fund generated substantial outputs and intermediate outcomes, particularly in laboratory strengthening, workforce development and data generation.

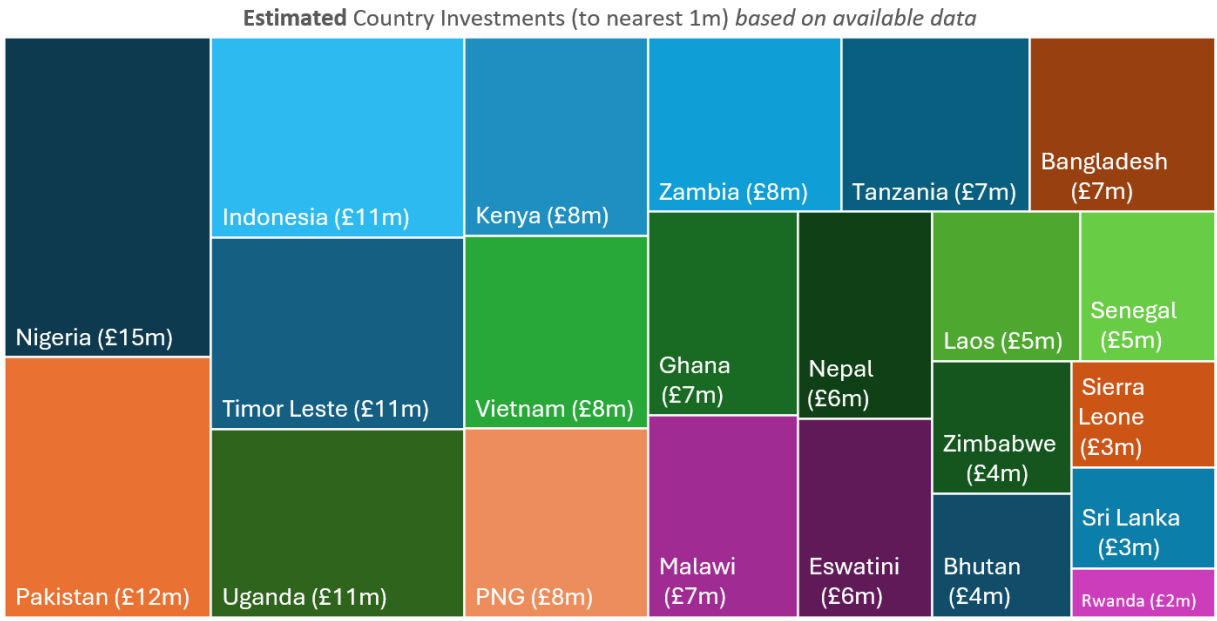
However, outcome-level ambitions evolved over time and were not consistently embedded in early contracting and accountability arrangements. As a result:

- resources were managed effectively against contracted outputs;
- but less effectively against later-stage outcome expectations relating to policy, practice and financing change.

This represents a **design-level VfM constraint**, rather than an implementation failure.

Figure 54 shows the relatively modest allocation of resources to countries over the four-to-seven-year period of Fund implementation. Allocations are modest in view of both the timeframe and the number of surveillance sites and sectors being supported in most countries.

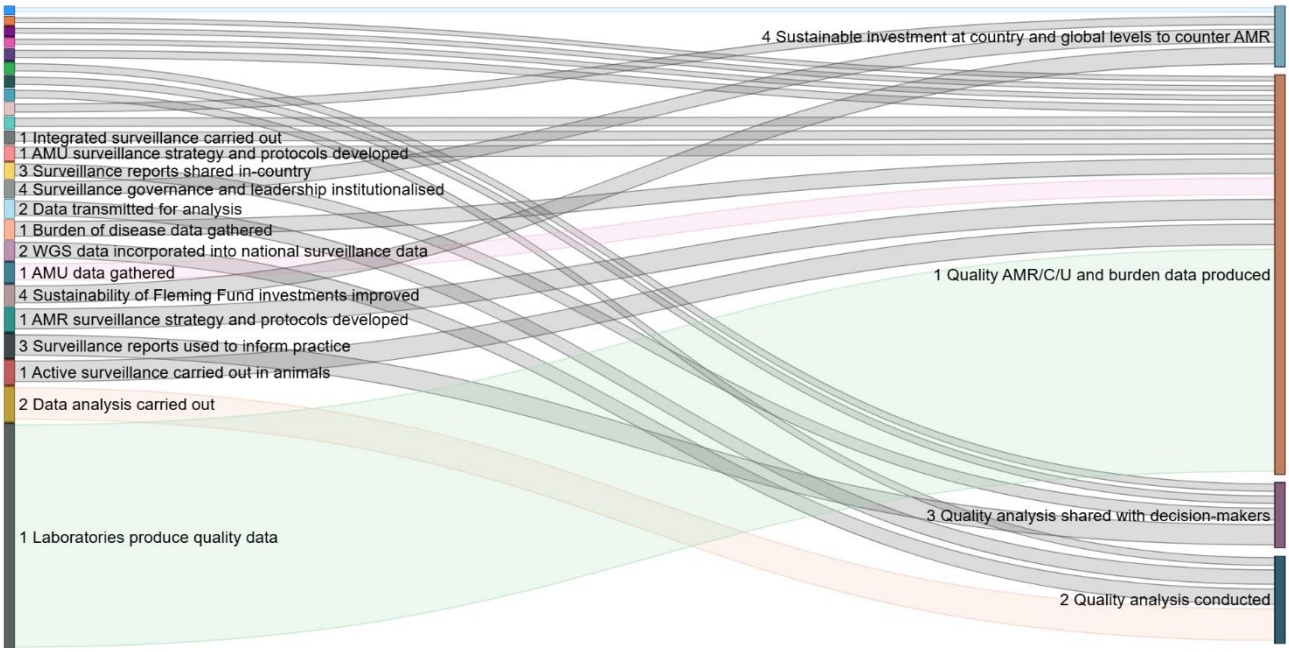
Figure 54: Estimated country investments based on MA financial reports and DHSC outgoing transactions (excluding countries that are not listed in the Results Framework)



Source: MA financial reports and DHSC outgoing transactions

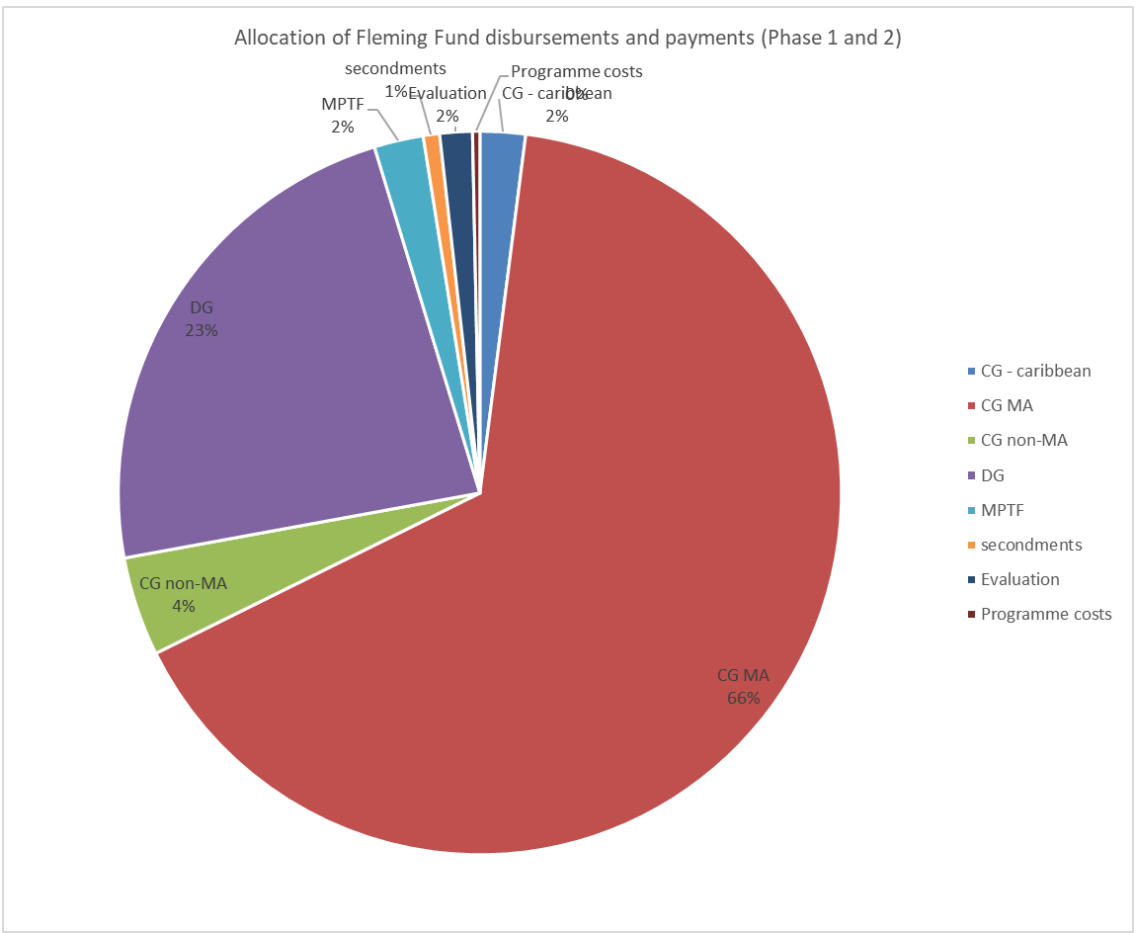
Figure 55 presents expenditure by work area, mapped to intermediate outcomes, based on financial reporting from the MA. Expenditure includes all country and RGs in Phase 2. It excludes MA commercial contract costs. The analysis shows of total Phase 2 grant funds 70% were spent on activities primarily contributing to data production, 13% on data analysis, 8.5% on data use and 7.5% on sustainability.

Figure 55: Expenditure by work area mapped to intermediate outcomes



Source: MA financial reporting

Figure 56: Allocation of Fleming Fund disbursements and payments (Phases 1 and 2)



Source: DHSC financial reporting

Time horizon and closure effects

The decision to close the programme at the end of Phase 2 further limited the extent to which outcome-level value could be realised, particularly where benefits depended on:

- sustained domestic financing;
- institutional reform; or
- behaviour change requiring longer timeframes.

As discussed in Sections 4.3 and 4.4, these constraints affected both effectiveness and sustainability from a VfM perspective.

Adaptive management

Adaptive management has been an explicit and recurring theme within the Fleming Fund, particularly since the latter part of Phase 1. Evidence from the Phase 1 summative evaluation indicates that adaptation occurred primarily at the operational level, with the Management Agent and grantees adjusting grant design, sequencing and delivery modalities in response to contextual shocks (including COVID-19), implementation delays and emerging learning. However, the evaluation also noted that scope for strategic adaptation was constrained by the Fund's delivery model, inclu8ding tightly specified grant workplans, extended approval processes and limited flexibility to revisit portfolio-level priorities once grants were contracted. These dynamics were revisited explicitly during an October 2022 DHSC–MA learning workshop on adaptive management, which identified enabling features for Phase 2 (such as internal learning forums, routine DHSC–MA engagement and limited experimentation through RGs), alongside structural constraints, including limited agility in changing KPIs and indicators, lack of clarity over where adaptive management was expected to apply, and uncertainty around risk appetite and tolerance for failure. The 2024 Phase 2 Progress Report suggests that learning and reflection mechanisms have since been strengthened, and that adaptive practices continue to be exercised in day-to-day portfolio management; however, it also confirms that core design choices and contractual arrangements continue to limit the extent to which learning can translate into substantive strategic re-prioritisation. Overall, adaptive management has functioned more effectively as an operational problem-solving mechanism than as a driver of higher-level strategic course correction, with implications for the Fund's effectiveness and VfM at portfolio scale.

4.6.4. Equity: evidence and limitations

Late introduction of equity considerations

Equity was not an explicit focus of Phase 1. Gender and equity were introduced as a Phase 2 strategic shift, but implementation was late and under-resourced.

The absence of minimum standards, dedicated indicators and consistent resourcing limited the extent to which equity considerations could be embedded in core programme delivery.

Operational equity challenges

Evidence in the report highlights several equity-related challenges:

- inconsistent collection and reporting of sex disaggregated AMR data;

- disruption to training activities following budget reductions;
- access barriers for some Fellowship participants, including out-of-pocket costs; and
- limited attention to geographic equity in site selection and access to diagnostic services.

Beyond gender, broader equity dimensions were only partially addressed, contributing to weaker VfM performance on equity.

Variation in VfM by sector and modality

Evidence indicates that VfM varied by sector and delivery modality:

- **Human health** investments showed stronger VfM where laboratory throughput and data use were higher.
- **Animal health** investments were more resource intensive and faced greater sustainability and efficiency challenges, particularly where active surveillance models were used.
- **Regional and direct grants** generated enabling effects – standards, platforms, analytic capability and professional networks – that are less visible at country level but offer stronger prospects for durable value.

This variation reinforces the importance of interpreting VfM at portfolio level rather than through isolated project comparisons.

4.6.5. Overall judgements on VfM, underpinning framework for judgements

presents a summary assessment against the 4Es at each stage of the programme cycle. This provides a systematic and transparent basis for synthesising evidence and arriving at VfM judgements, which are explored in greater depth in the narrative findings of the report. A description of how this framework was developed and discussion of its limitations is included below .

Table 30: Summary assessment against the 4Es

VfM Domain	Programme stage	Standards	Rating (out of 4)[63]
Economy	Design	Cost drivers are identified and understood	3
		Procurement and sourcing strategies balance cost and quality	3
		Economy considerations embedded in design choices	2
	Set-Up	Budgets and systems enable cost-conscious delivery	3
		Procurement and supply chain plans established early	2
		Unit costs benchmarked against comparators where feasible	3
	Implementation	Inputs procured at competitive or benchmarked prices	3

[63] 1 = poor; 4 = excellent.

		Cost-saving measures identified and tracked	3
		QA applied to procured goods/services	3
	Close	Asset transfer processes complete and cost-conscious	2
		Future use of assets considered for long-term usability	2
Efficiency	Design	Programme builds on existing structures and systems	3
		Implementation model is coherent and realistic	2
	Set-up	Structures enable timely implementation	2
		Systems for tracking activities and budgets functional	3
	Implementation	Activities delivered per planned timelines	3
		Budget utilisation aligns with planned spending	3
		Overhead and admin costs within reasonable thresholds	3
		Resources are used optimally, including equipment utilisation	2
		Leveraged resources or synergies documented	3
	Close	Operational efficiency maintained through closure	3
		Handover ensures continuity without excess cost	2
Effectiveness	Design	Interventions grounded in evidence or plausible theory	2
		Assumptions and risks to results identified	2
	Set-up	MEL systems established to track results	2
		Outcome-oriented mechanisms in place	2
	Implementation	Outputs delivered with sufficient quality	3
		Programme contributes to intermediate outcomes	3
		Adaptive management documented	2
	Close	Evidence of contributions to outcomes synthesised	2
		Knowledge captured and shared	3
Equity	Design	Equity considerations explicit in programme rationale	2
		Site/resource allocation incorporates equity principles	2
	Set-up	Budgets, inputs and structures embed equity	1
		Monitoring systems include disaggregation where feasible	1
	Implementation	Activities support equitable access to programme benefits	3

		Equity mainstreamed into implementation and outputs	2
		Emerging equity issues identified and addressed	2
	Close	Equity implications assessed at programme end	3
		Knowledge products are accessible and inclusive	3

Source: Evaluation team data collection and analysis, covering document review and country-level KIIs

Development and application of the VfM standards

At the outset of Phase 1, a literature review of common practice in VfM in grant management was undertaken. This review informed the development of an initial VfM evaluation framework structured around four stages of the programme cycle and the standards expected at each stage. The framework was used to assess available evidence on VfM during Phase 1 of the programme and was reported in the Phase 1 summative evaluation.

During Phase 2, the framework was further developed to reflect best practice in the evaluation of UK Aid programmes. Drawing on the 2020 DFID guidance on VfM, the framework was refined to cover both the 4Es and the four stages of the programme cycle. In parallel, the framework was aligned with programme-level VfM reporting and the overall evaluation design to ensure feasibility of measurement and relevance of standards to the programme context. This iterative development allowed the framework to incorporate a broader range of VfM evidence, including savings on inputs reported by the MA and contribution analysis generated through the evaluation, to inform VfM ratings.

Evidence synthesis drew on multiple sources, including primary data from KIIs and secondary data from programme documentation and financial reports (see full list of evidence below). Evidence was triangulated wherever possible. The synthesis explicitly considered variation in performance across sectors (AH and EH), countries and programme phases, and these differences were taken into account when arriving at overall ratings. Ratings were subject to internal calibration across evaluators to ensure consistency of interpretation and application of standards. Comparator programmes were identified through relevant ICAI reviews and used to support judgement rather than to provide direct benchmarking.

Limitations of the approach

There are several limitations of the VfM assessment:

- Evidence quality and availability varied by country, sector and programme phase, constraining the consistency of analysis across the portfolio.
- Comparator programmes identified through ICAI reviews differ in context, scale and delivery models, reducing the strength of direct comparisons.
- The need to align VfM standards with existing programme reporting constrained the extent to which new or more granular VfM metrics could be introduced.

Ratings have been arrived at following a synthesis of available evidence and discussion between evaluators using an evidence log, which is not included in this annex. Evidence sources include:

Fleming Fund Phase 1 Business Case; Fleming Fund Phase 2 Business Case; RFPs; VfM Deep Dive 1, 2, 3 (Procurement) 4 and 5; Grant award documentation; Analysis based on Phase 1 summative evaluation report; CG and RG VfM reviews (Phase 1); MA VfM report end of inception;

Sustainability analysis; A-D categorisation; Programme documentation; country regional and global KIIs; DHSC and MA KIIs; grant tracking tool; Phase 1 summative evaluation; Phase 2 Progress Report – VfM data collection and analysis; Results Framework; MA Quarterly reporting to DHSC; MA financial reports provided to evaluation 2023 and 2026; Throughput analysis; MA sample processing reports/dashboard; Phase 2 Progress Report VfM data collection and analysis tools; Fleming Fund Annual Reviews; Contribution analysis from Phase 1 and Phase 2 evaluations; MA slide deck/synthesis of Equity work; CG VfM Reviews Phase 1; FFS Analysis; FFS Analysis based on MA data; Progress Report – Strategic Shifts analysis; GEAR-UP Catalysing action on G&E within AMR ppt; CIS; SEPs; Landscape analysis reports.

5. Line of sight between findings, conclusions and recommendations

Table 31 provides a structured line of sight between the evaluation's findings, conclusions and lessons, illustrating how judgements are grounded in multiple strands of evidence rather than implying linear or attributable causality.

Table 31: Line of sight between findings, conclusions and recommendations

Key findings (Vol. I Section 4)	Conclusions (Vol. I Section 5)	Lessons/implications (Vol. I Section 6)
4.1 Strong delivery of agreed outputs and surveillance foundations (laboratories, workforce, governance).	**5.1 The Fund delivered strongly on its core intent.** The Fleming Fund performed well against what it was designed and contracted to do, establishing substantial AMR surveillance foundations and global public goods at scale.	**Lesson 1: Fix outcomes early; adapt pathways, not purpose.** Strong delivery reflected clarity around agreed outputs and intent; later expansion of outcome ambitions weakened coherence and accountability.
4.2 Substantial increase in AMR data generation and international reporting, but not yet consistently representative, policy-ready or routinised for national use.	**5.3 Progress on deeper system-level change was limited and uneven.** Improved surveillance did not consistently translate into sustained data use, policy uptake or financing.	**Lesson 4: Do not assume linear pathways from evidence to action.** More data strengthens potential for action but does not trigger decisions without clear routes, incentives and demand.
4.2–4.3 Intermediate and enabling outcomes improved most within the Fund's core sphere of influence (data generation, analysis, sharing).	**5.2 The Fund generated important enabling and durable effects.** Skills, networks, norms and platforms represent some of the most durable contributions.	**Lesson 3: Use grant-making where pathways are direct; design differently for complex system change.** Grant models are effective for bounded technical objectives but less so for influencing incentives and institutional behaviour.
4.3 Limited, uneven and only weakly attributable policy, practice and financing outcomes beyond surveillance foundations.	**5.3 Deeper outcome-level change was limited and uneven.** Contribution claims are strongest for enabling conditions rather than measurable policy or financing outcomes.	**Lessons 4 and 3, reinforced by Lesson 7 (One Health as a design lens), recognising sector-specific pathways and constraints.**
4.3 Governance and enabling environment outcomes were the strongest and most consistent area of contribution.	**5.2 and 5.3 Enabling effects underpin the most credible contribution story.** Governance outcomes were more consistent than policy or financing change.	**Lesson 7: Treat One Health as a design lens, not a delivery template.** Governance and coordination outcomes are more achievable than integrated system change through uniform delivery models.
4.4 Sustainability prospects are limited and uneven, particularly where continuation depends on	**5.5 Sustainability prospects and VfM are mixed.** Sustainability is weakest where models rely on high recurrent costs and rapid	**Lesson 5: Treat sustainability as a design imperative, not an end-stage activity.** What should endure, at what cost, and with what financing must be designed in from the outset.

high recurrent costs and ongoing external support.	domestic financing absorption.	
4.5 VfM is strongest on economy and aspects of efficiency, weaker on effectiveness, equity and sustainability.	**5.5 VfM outcomes reflect structural choices and operating context.** Strong delivery at scale coexisted with constrained outcome-level value.	**Lesson 6: Calibrate ambition to context and institutional capacity.** Large, standardised portfolios increase risks where affordability, differentiation and sustainability are weak.
Cross-cutting: Delivery constraints reduced effective implementation time and constrained outcome consolidation (replanning, approvals, sequencing).	**5.4 Delivery constraints shaped what could realistically be achieved.** Structural and procedural factors limited adaptiveness and consolidation of outcomes.	**Lesson 2: Protect strategic intent through the delivery chain.** Delivery architecture and assurance systems strongly shape what is feasible, regardless of later strategic shifts.

Solving complex challenges with evidence and learning

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