



Fleming Fund Grants Programme

Independent Evaluation of the
Fleming Fund Grants Programme

June 2023

Executive Summary

Introduction

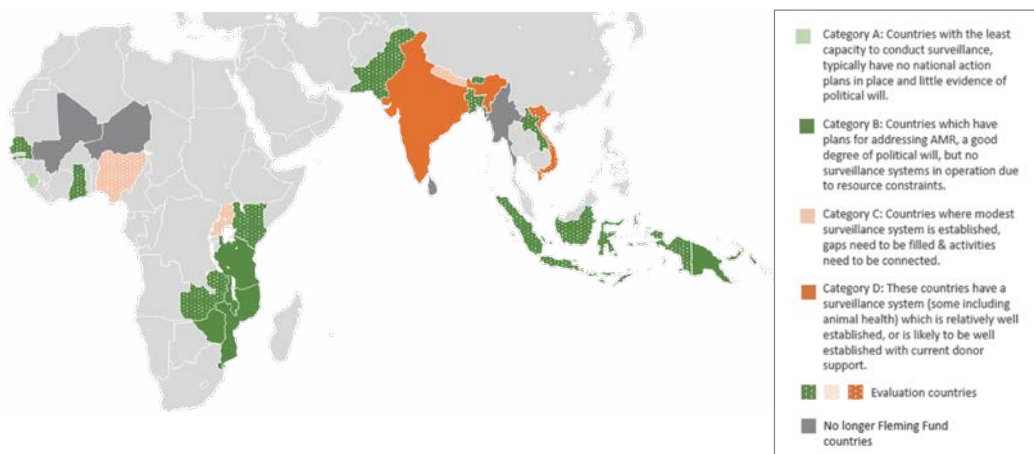
The O'Neill report¹ estimated that by 2050, drug-resistant infections or Antimicrobial Resistance (AMR) could kill 10 million people per year at a potential cost of US\$100 trillion in global economic output.

Recent estimates² suggest that globally 4.95 million deaths were associated with bacterial AMR in 2019, including 1.27 million deaths directly attributable to such resistance.

Figure 1: Fleming Fund countries by categorisation

The Fleming Fund has undertaken significant activities directed at both developing laboratory capacity and enhancing the surveillance systems across the 23 countries.³

These activities, whilst varied across countries, have contributed to strengthening laboratory capacity and workforce to a varying degree across all of our focus countries.



¹ <https://amr-review.org>

² [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)02724-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02724-0/fulltext)

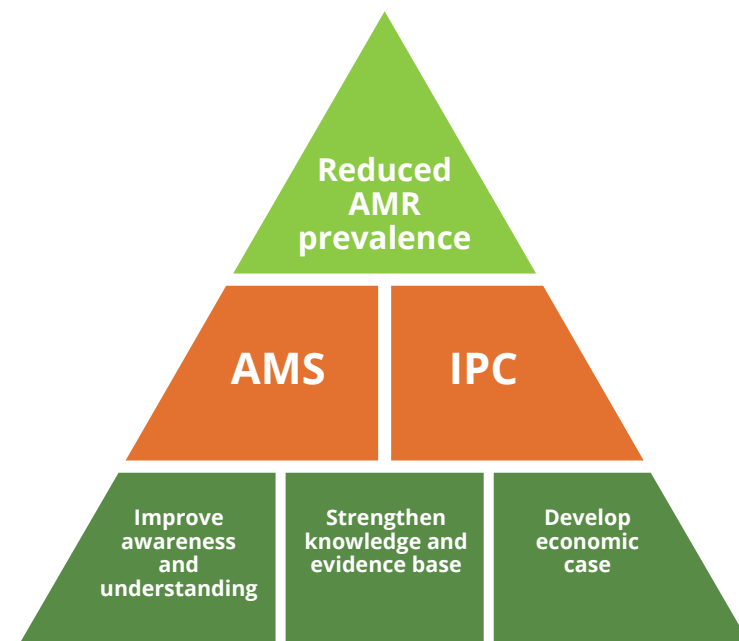
³ The Fleming Fund started country grants in 23 countries but subsequently pulled out of Sri Lanka and Myanmar decreasing the number of focus countries to 21

The Fleming Fund was established in 2015 by the UK Government's Department of Health and Social Care (DHSC) using Official Development Assistance (ODA) funding to tackle the threat of AMR in Low-and Middle-Income Countries (LMICs) through a One Health⁴ approach.

The initial phase, for £265 million, ran over a five-year period (2016-2021) but has been extended to March 2023. With its focus on improving laboratory capacity and diagnosis as well as AMR data and surveillance, it contributes directly to one of the five pillars in the 2015 Global Action Plan (GAP) on AMR.

Significant impact to address AMR requires progress across all five pillars and while the Fleming Fund's contribution may be necessary, it is not expected to be sufficient on its own. Ultimately, achieving the Fleming Fund's desired impact is dependent on the coherent actions of other actors. At the country level, this will depend upon the implementation of One Health AMR National Action Plans.

Figure 2: Pillars of the Global Action Plan on AMR



⁴ One Health is the integrative effort of multiple disciplines working together locally, nationally and globally to attain optimal health for people, animals and the environment. <https://www.avma.org/onehealth>



How has the Fleming Fund been designed and implications for expected phase 1 results

The Fleming Fund is delivered through grants aimed at building AMR surveillance globally and at the country level through support to:

- develop guidance and protocols for the standardised collection and sharing of data
- develop One Health AMR National Action Plans
- generate, analyse and use data in a range of LMICs.

The Fleming Fund Management Agent, Mott MacDonald (the MA), designed a range of grants, based on detailed country needs assessments, to support country priorities for AMR, antimicrobial consumption/use (AMC/AMU) surveillance as set out in the AMR National Action Plans.

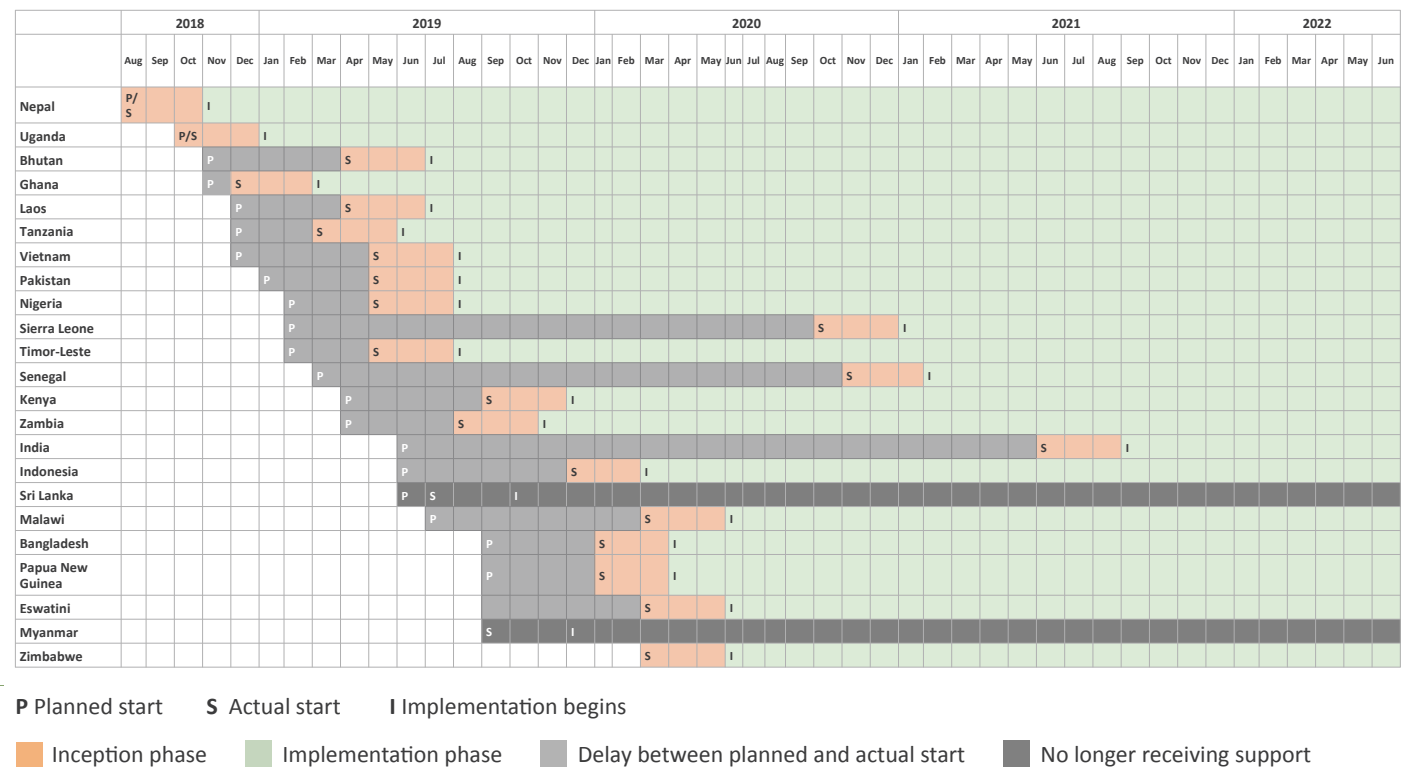
As of late 2022, grant support has been delivered in 23 focus countries. Across the 23 countries, the number of grants delivering relevant outputs was 81, of which 26 had been completed by 2021 and 55 carried on until late 2022.

When assessing results across these 23 countries, the following things are important to note:

- There was substantial variation in the status of laboratories that the Fleming Fund was due to support. For example, sites in some countries lacked reliable water and electricity supplies, which are fundamental in undertaking AMR testing.
- Grant start dates were staggered across countries (Figure 3) so that the duration and level of overall support from the Fleming Fund, and therefore expected results, varied across countries.

- The pace of implementation of many grants was also affected by COVID-19 restrictions.
- The process of building a surveillance system is incremental, and the results in terms of data generation were not to be expected before 36 months of support. By end of June 2022, 16 of the 23 countries had received 36 or more months of support, with another seven receiving between 24 and 36 months of support.
- This first phase of Fleming Fund support was mainly intended to build the foundations for AMR surveillance. Achievement of the Fleming Fund's strategic outcomes, such as significant use of AMR data and analysis to drive or inform anticipated policy, regulatory and behavioural change was the expected focus of subsequent phases of support.

Figure 3: Fleming Fund Country Grant implementation status and duration



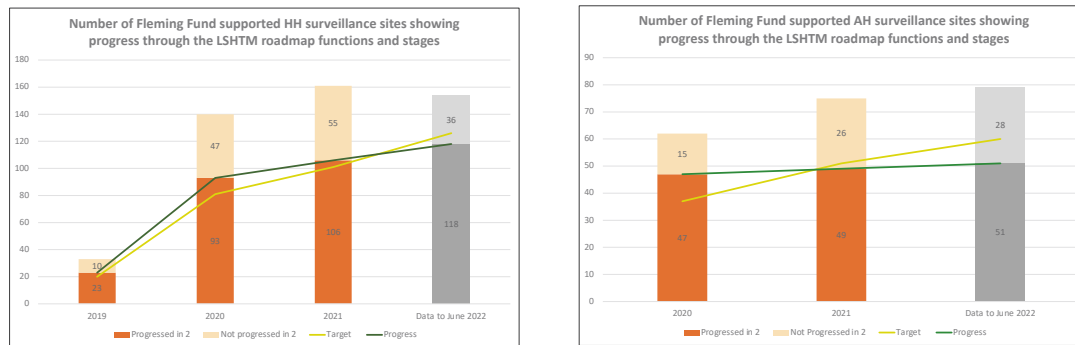
Fleming Fund outputs

The Fleming Fund has delivered important outputs during phase 1 (see Figure 5). The DHSC commissioned Itad⁵ to conduct an independent evaluation of Phase 1,⁶ exploring whether these outputs will lead to results that interest the DHSC in terms of the use of AMR surveillance data for policy, regulation and behaviour change at national and international levels.

This document provides an overview of findings, conclusions and recommendations from Itad's work. Conclusions and recommendations are presented first, followed by supporting findings and information about the evaluation methodology.

Even in a challenging context, the Fleming Fund has delivered significant outputs to develop laboratory capacity and enhance surveillance systems across the 23 focus countries. These outputs have contributed to stronger laboratories and workforces, to varying degrees, across all of our focus countries. This first phase of Fleming Fund support aimed to build the foundations for AMR surveillance, which is an incremental process and takes time. Achieving strategic outcomes, such as significant use of AMR data and analysis to drive or inform anticipated policy, regulatory and behavioural change was expected to be the focus of subsequent phases of support.

Figure 4: Number of Fleming Fund supported HH & AH sites⁷ showing progress through the LSHTM roadmap⁸



It is important to note that the number of sites may differ in a given year's key performance indicator (KPI) calculation because:

1. Sites that are being supported but are supported for < 9 months are not included in the KPI calculation
2. Sites that are supported but are in the environmental or food sectors are not included in the KPI calculation

3. Sites reported as 'supported' in quarterly monitoring reports do not include sites where support is no longer active (i.e. where grants have stopped like in Ghana), i.e. data monitoring reports are a 'snapshot' in time versus the overall cumulative number.

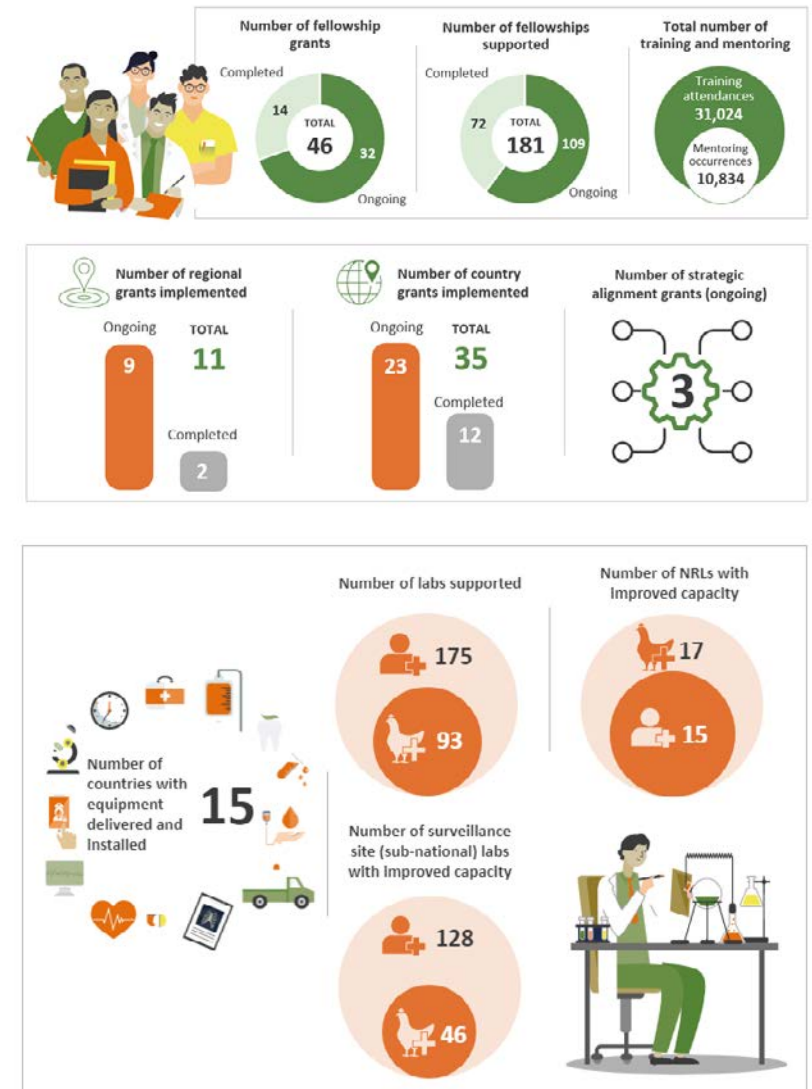
⁵ www.itad.com

⁶ While second phase of Fleming Fund support has already been agreed, the evaluation findings can feed into discussions between the DHSC and the MA on detailed plans for phase 2 implementation.

⁷ The number of sites may differ in a given year's key performance indicator (KPI) calculation.

⁸ Roadmap for participation in the Global Antimicrobial Surveillance System (GLASS). <https://researchonline.lshtm.ac.uk/id/eprint/4574689/>

Figure 5: Summary of what the Fleming Fund has delivered during Phase 1, up to end June 2022



A comprehensive report is available on the Fleming Fund website. <https://www.flemingfund.org>

Conclusions

The focus of phase 1 of the Fleming Fund was to build the foundations for AMR surveillance. Achievement of the Fleming Fund's strategic outcomes, such as significant use of AMR data, and analysis to drive or inform anticipated policy, regulatory and behavioural change, was expected to be the focus of subsequent phases of support. The following conclusions therefore focus on the strengths and weaknesses of phase 1 in terms of maximising contribution to these results and what needs to change in phase 2.

Progress towards strategic goals

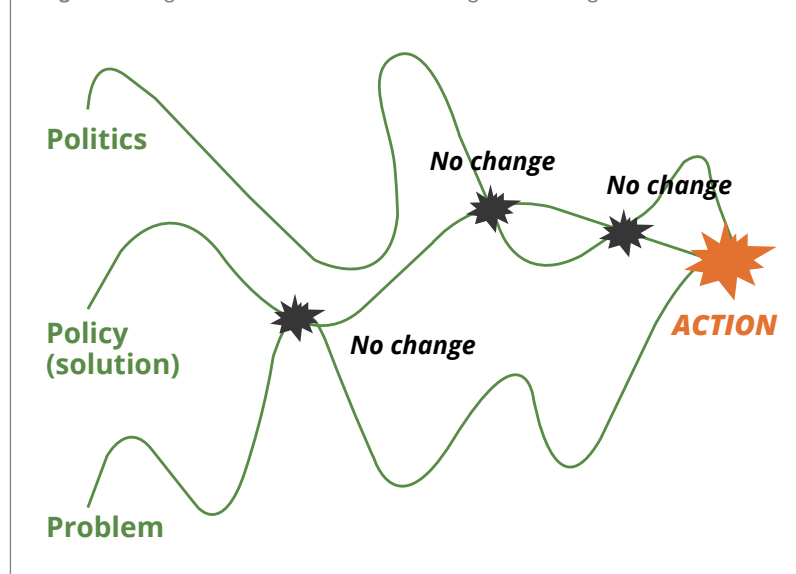
Conclusion 1

During phase 1, the Fleming Fund made important progress in supporting countries to develop foundations for national AMR and AMU surveillance programmes in terms of strengthening laboratory and surveillance functions, and developing the laboratory workforce.

Conclusion 2

Building on these necessary foundations, it is reasonable to expect that the Fleming Fund will be able to make progress towards achieving its higher-level goals for phase 2 (in terms of use of data for clinical improvement, policy and behaviour change), providing there is a stronger focus on understanding the needs and priorities of decision makers. However, processes to achieve these goals are inherently political, complex, and unpredictable and will take time to work through (see Figure 6). In phase 1, the AMR NAPs developed by country governments neither identified the prioritised outcomes nor provided a strong framework within which the Fleming Fund could easily engage with key national stakeholders. It cannot be assumed that this will change without support to strengthen NAPs and the Antimicrobial Resistance Coordinating Committee (AMRCC).

Figure 6: Kingdon's three stream model of agenda setting⁹



⁹Adapted from Sieleunou, I., Turcotte-Tremblay, A.-M., Fotso, J.-C.T., Tamga, D.M., Yumo, H.A., Kouokam, E., Ridde, V., 2017. Setting performance-based financing in the health sector agenda: a case study in Cameroon. *Globalization and Health* 13, 52. <https://doi.org/10.1186/s12992-017-0278-9>

Conclusions continued...

Observations on programme design

Conclusion 3

The programme has operated during a challenging context, which will continue into phase 2. The Fleming Fund has proven flexible enough to respond effectively, even though some features of the programme design made responding more challenging. The political and economic impacts of COVID-19 and other global factors are still emerging, but include economic disruption, supply chain issues, high LMIC country indebtedness, and high-income country budgetary issues. The Fleming Fund made a range of changes in response to COVID-19, such as refocusing and extending grants. However, having key MA management and delivery capacity located in regional hubs rather than at the country level meant that it was not possible to implement important activities as originally planned.

Conclusion 4

The MA successfully operationalised strong and effective procedures to manage for economy and efficiency at the activity level. With further use of laboratory capacity established during phase 1, the overall Value for Money (VfM) of the programme will be enhanced. The challenging context and the complex operational model, as well as management overheads, affect the scope to deliver efficiency and economy. However, evidence suggests the delivery of efficiency and economy, as well as effectiveness in terms of strengthened laboratory functions and workforce capacity development.

Conclusion 5

Experience from phase 1 suggests that the Fleming Fund can be stronger in the following key areas going forward: using a stronger sustainability lens in deciding what support to provide to laboratories, working at the organisational level to sustain capacity building results, focusing on other data types (such as AMC/U, economic data, research rather than surveillance data) as well as laboratory-generated AMR data, and differentiating more strongly between support provided to Animal Health (AH) and Human Health (HH).

Conclusion 6

The Fleming Fund deserves recognition for prioritising One Health and for convening cross-sectoral dialogues. The lack of models¹⁰ on how this can be operationalised at a national scale has impacted the design of the Fleming Fund's One Health approach. Learning from the joint research aspects of the Fellowship programme, which echoes wider experience in One Health, may help identify informal mechanisms to replicate during phase 2. When the Fleming Fund started, there was limited practical guidance on how to operationalise One Health in different country contexts - something that the international agencies have only now started to address.^{11,12} However, there are few examples of One Health approaches being effectively implemented at a national scale - even in the UK.¹³ Joint research by HH and AH Fleming Fellows may offer future learning.

¹⁰ We do note the potential role that the Tricycle protocol could play in providing a tried and tested model, but also that this was published in 2021, so not available for Fleming Fund use for the majority of phase 1.
<https://www.who.int/publications/i/item/9789240021402>

¹¹ https://apps.who.int/gb/ebwha/pdf_files/WHA75/A75_19-en.pdf

¹² <https://www.who.int/initiatives/tripartite-zoonosis-guide>

¹³ Perhaps the closest example is the Human Animal Infections and Risk Surveillance (HAIRS) group which identifies and assesses emerging infection risks to human health.

Conclusions continued...

Observations on programme management and implementation

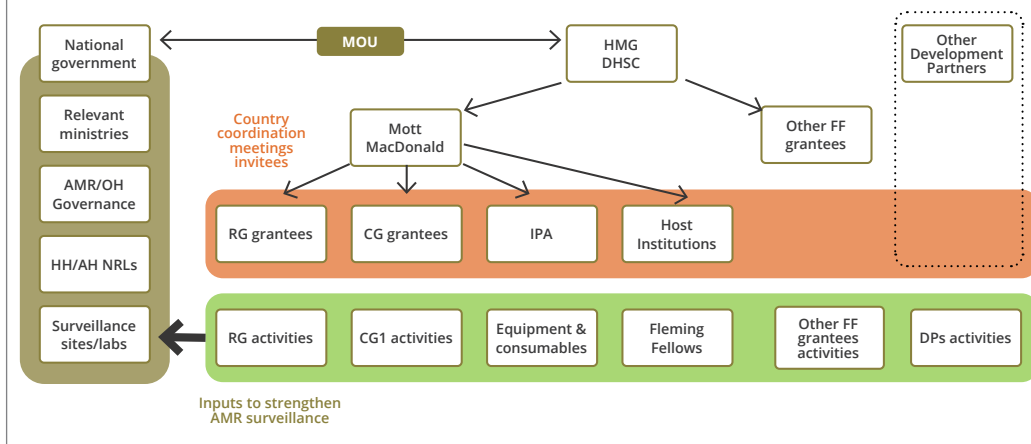
Conclusion 7

During phase 1, planning by both the MA and DHSC was over-optimistic in terms of the time taken for design, approval and delivery, and it is not clear that this has been fully addressed for phase 2. Less implementation has been achieved than originally expected due to a range of factors including two civil service purdahs, delays in contracting the MA and competitive tendering, COVID-19, and other contextual factors in particular countries. There is an understandable risk that ambition and realism are not well balanced in setting expectations for what can be delivered in phase 2, e.g. in relation to how quickly piloting new approaches or innovations for phase 2 can be signed off by the DHSC.

Conclusion 8

The complexity of the programme, with multiple Fleming Fund grantees operating at the country level, has made it challenging to deliver coherence across the Fleming Fund's investments. This has been exacerbated by DHSC's choice to expand and directly contract several grantees in parallel to the MA's grantee portfolio. The challenge was recognised and progress made, but focused mainly on avoiding duplication. Less progress has been made in enhancing synergy and greater overall effectiveness. Evidence of external coherence with external partners is strong within limits but reflects the lack of working formal government coordination mechanisms. Ultimately external coherence should be the remit of AMRCCs but these are not always fully functional and do not always include all relevant non-government stakeholders.

Figure 7: The complex landscape of AMR-focused interventions at country level



Observations affecting longer-term objectives

Conclusion 9

The Fleming Fund could strengthen its approach to managing for effectiveness at the country and portfolio levels. There has been progress in this regard during phase 1, and the challenges observed reflect factors common in many aid programmes;¹⁴ but some challenges are particular to the Fleming Fund, and addressing them will be increasingly important in phase 2. The Fleming Fund did not start with clear and realistic goals on what could be achieved during phase 1, which undermined its strategic focus and effectiveness in terms of achieving higher-level outcomes. Progress has been made, in terms of developing and reporting against a portfolio-level Theory of Change and a core set of indicators. Managing for effectiveness requires both a clear articulation of the balance between impact at the individual facility level and the policy/regulatory level and an adaptive management approach capable of delivering it.

¹⁴ICAI's 2018 review of DFID's approach to value for money in programme and portfolio management finds the same problem, as does a 2019 review of experience with RBM across development organisations.

Recommendations

The recommendations presented below follow the findings and conclusions of the evaluation team. Under each, more detailed recommendations on their operationalisation can be found in Vol. I, section 4. They are of equal priority and should be implemented as a package for the best results.

Recommendation 1

The DHSC and MA should ensure that clear, ambitious, realistic goals for phase 2 are in place from the outset, with targets to track progress. These should be established at country and portfolio levels, based on understanding the current status of AMR surveillance systems and their use as developed during phase 1.

Recommendation 2

The DHSC and MA should ensure systems and processes for establishing expectations and tracking progress are proportionate, timely and sufficiently flexible to deal with uncertainty and the need for strategic adaptation. These must strike the right balance between strategic reflection and accountability and avoid focusing too heavily on tracking the implementation of inputs and activities.

Recommendation 3

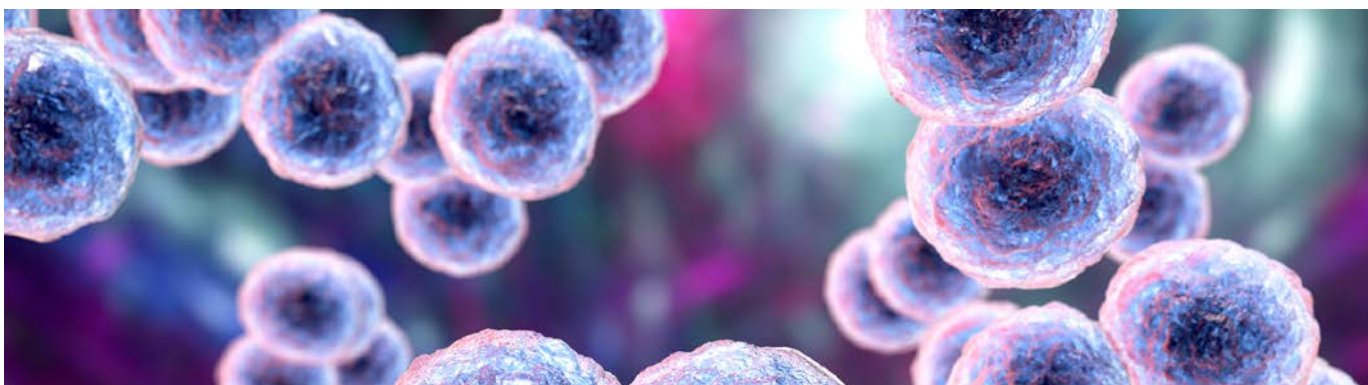
The process of establishing goals at the country level should be focused on understanding the priorities and needs of key decision makers on AMR, recognising that a) AMR action will take place through multiple policy processes and that differentiation between human and animal health is of fundamental importance, and b) achieving higher-level goals requires action by other actors and therefore effective collaboration with key stakeholder groups.

Recommendation 4

The Fleming Fund should make specific adaptations to or emphases within its technical approach for phase 2, that are supported by experience from phase 1, including focusing on AMU and other data sources, identifying informal approaches to One Health, multisector collaboration, and maximising the prospects for sustaining laboratory functions.

Recommendation 5

The Fleming Fund should place greater emphasis on internal and external coherence and coordination from the outset of phase 2, including considering strengthening AMRCCs and NAPs to play this role and their linkages to institutional homes.





Key findings by Evaluation Question (EQ)

We set out here, for each of our Evaluation Questions (EQs), a summary of the key findings that underpin the conclusions and recommendations presented on preceding pages. Our EQs focus on the outcomes of interest to the DHSC in terms of changes in quantity, quality and use of AMR surveillance data, and to which Fleming Fund outputs have contributed.

(EQ1) What has been the increase in the quantity and/or quality of data on Antimicrobial Resistance (AMR) at country level and to what extent has the Fleming Fund contributed to this increase?

The Fleming Fund achieved the stated aims for the quantity of data generation as set out in the implementation plan, albeit targets reflected low success criteria and were not sector specific. As of mid-2022, there was evidence of increases in the quantity of HH AMR surveillance data in 11 out of 16 of our focus countries (69%), although the extent of change varied; and increases in the quantity of HH data beyond AMR.¹⁵ There was evidence of increases in the quantity of AH AMR surveillance data in 12 out of 16 countries (75%), with the extent of change also varied. **Improvements in the quality of AMR testing were seen in HH and AH in a majority of countries albeit inconsistently, and progress is expected to continue.**

Major drivers of increases in quantity and quality were identified as renovation of sites and provision of equipment, training of the laboratory workforce, supporting laboratory quality management systems, and AMR governance. Overall, **the Fleming Fund has made a vital or important contribution to most key drivers of increased quantity and quality in both HH and AH AMR data, albeit to variable extents.**

(EQ5) What has been the increase in quality data shared and reported internationally and has the Fleming Fund contributed to this?

There is evidence of sharing at the international level. For HH, the majority of evaluation focus countries (13/16) shared data to the Global Antimicrobial Resistance Surveillance System (GLASS) since 2018 (of which seven had not previously done so) and a further four across other Fleming Fund countries. In the AH sector, by May 2022, 14/16 of the evaluation focus countries reported to WOA, with an increase in the number providing more sophisticated data. In HH, the Fleming Fund has contributed to most but not all key drivers of

data sharing in all countries; whereas in AH the contribution was lower because this was not an area of focus for phase 1.

(EQ4) Has, or is it likely that the increase in AMR data influenced: (a) changes in national policies/regulations?; and/or (b) changes in practice and attitudes in the country?

There are satisfactory initial indications that data from AMR surveillance systems are starting to be used at the national level, but AMR data is not prominent in decisions on AMR action. Progress with the use of data has been slower and more difficult than anticipated, especially at the pivotal national level. At the national level, data sharing with relevant committees is happening in six out of 16 focus countries.¹⁶ Even where AMR/C*/U data is not yet being shared with relevant committees on a routine basis, some progress towards this goal has been realised in most countries. Despite progress with sharing, AMR surveillance data collated from laboratory Antimicrobial Susceptibility Testing is yet to play a prominent role in relevant decision making on AMR. Over half of the focus countries have nevertheless initiated significant policy and regulatory action on AMR at the national level since 2018.

At the local/facility level, there is emergent evidence that Fleming Fund interventions are stimulating positive changes to practices and attitudes as clinicians and other stakeholders start to interact differently with improved laboratories; however, these are not yet representative of wider system change within countries.

The Fleming Fund has made very substantial contributions to the main drivers of data sharing at the national level primarily through Country Grants (CG). It remains to be seen to what extent Policy Fellowships and other interventions focused on data use will contribute to the intended results. The Fleming Fund has also contributed strongly to the drivers of data sharing at the international level, especially sharing with GLASS.

(EQ3) How likely are the Fleming Fund's country level results to be sustained?

Based on action to date and current country-level conditions, there are limited prospects for sustaining Fleming Fund results at this stage, which is a key strategic requirement for phase 2. This is linked to a lack of progress in establishing key conditions, such as resources, capacity, motivation, and planning. The MA has been clear that prospects for achieving sustainability during phase 1 were limited given the starting points in most countries and

limited implementation time of some grants (and this is backed up by broader evidence) but the Fleming Fund approach has limited dialogue with key stakeholders to deliver sustainability goals.

(EQ2) To what extent have the Fleming Fund's investments been aligned and coherent with other relevant investments at country level?

The model has created challenges in terms of delivering internal coherence (or integration and alignment) between Country Grants, Regional Grants, and Fellowships, compounded by a number of design, management, and contextual factors. Over the years, efforts have been made by the DHSC and the MA to increase coherence and coordination among the various partners and funding streams. However, the bases for true coordination and collaboration are still missing. This has likely led to lost opportunities to link to other relevant agendas and synergies, and to increased transaction costs for country stakeholders.

External coherence between all Fleming Fund grants and other Delivery Partners interventions was found to be strong in a majority of the focus countries, but does not focus on linkages to wider (non-surveillance) aspects of the AMR response. External coherence and coordination are notoriously hard to achieve, even more in the AMR space.

(EQ6) Did the Fleming Fund's investments at country level offer VfM?

The Fleming Fund's experience in delivering value for money generally aligns with the Foreign, Commonwealth and Development Office and the Independent Commission for Aid Impact (ICAI) guidance. Overall, there are strong systems in place to manage economy and efficiency. However, the Fleming Fund has been weaker at establishing systems to manage for effectiveness, which is a key strategic requirement for phase 2.

In narrow terms (economy, efficiency) there is evidence of VfM having been delivered. But in terms of effectiveness (as defined by Organisation for Economic Co-operation and Development) the case is less clear. There is evidence of significant cost savings (economy) delivered by the Fleming Fund, underpinned by strong systems to manage budgets and expenditures; performance is comparable to similar programmes. The alignment between Fleming Fund expenditure, contribution, and progress in generating quality AMR data is high, suggesting one positive VfM outcome.

¹⁵ E.g. data on AMC/AMU also increased in some countries

¹⁶ This assessment differs from MA reporting on data sharing because it is undertaken on a different basis.



Evaluation scope and methodology

SEPTEMBER 2021 ←

→ JULY 2022



1900

DOCUMENT REVIEWS



400

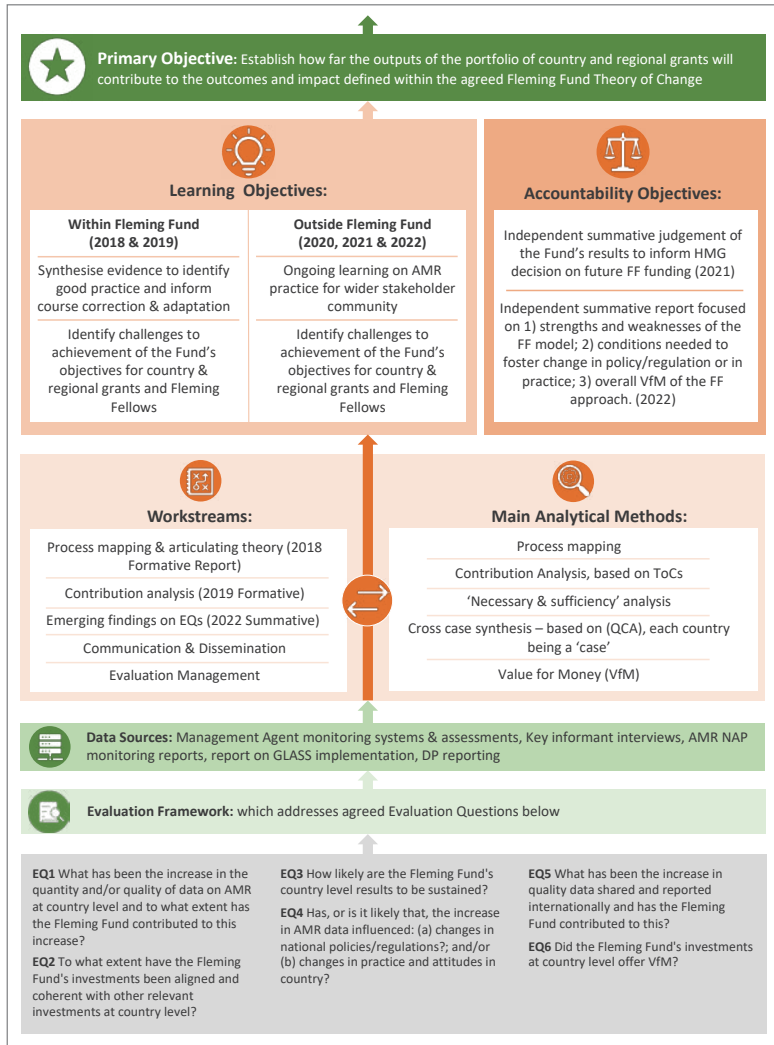
INTERVIEWS WITH
KEY INFORMANTS



16

16 CASE STUDY
COUNTRIES

Figure 8: EQs within the conceptual framework



The DHSC commissioned Itad in 2016 to provide an independent evaluation function for the Fleming Fund grants programme. The evaluation has been undertaken by a multidisciplinary team as described in Vol. II, Annex 14. As agreed, we have not evaluated the performance of individual grants within these two workstreams. Rather, the focus of the evaluation has been on how far the outputs (i.e. activities) of the grants developed and managed through the MA have, or are likely, to contribute to the outcomes and impact (i.e. longer-term goals) identified by DHSC. Previous evaluation outputs were focused on and timed to ensure the utility of the evaluation processes, e.g. through supporting adaptation by the Fleming Fund, based on emerging evidence from implementation (see Vol. II, Annex 23 for summary examples of where this has happened). Here we present an independent summative judgement of the Fleming Fund's results for accountability purposes using six evaluation questions (EQs) that reflect DHSC's priorities. Our focus is on the country- as opposed to regional- or global-level results across the human, animal, and environment sectors. Our primary target audience is senior management within the DHSC and His Majesty's Treasury (HMT), as well as the management agent and other

donors and delivery partners.

The timing of the evaluation was set, at the request of DHSC, to maximise utility through feeding into detailed planning of the second phase of the Fleming Fund, starting in April 2023. One consequence was having a July 2022 data collection cut-off point, which is nine months before phase 1 of the implementation evaluation finishes. We recognise further implementation and progress is likely to have occurred that is not reflected in this report. This may appear in the MA's reports produced after we completed our data collection.

To address the EQs we have collected data in 16 case study countries, resulting in a review of more than 1,900 documents and the completion of more than 400 Key Informant Interviews over the period September 2021 to July 2022. We do not believe that evidence from the remaining seven countries would significantly alter our conclusions and recommendations. A range of analytical methods including contribution analysis, benchmarking against broader evidence and experience, and triangulation were used in analysing the evidence and developing our conclusions.



The
Fleming Fund

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