

Applied Microbiology International Submission to the AMR MSPP on the GAP-AMR

On September 18th, 2025, AMI brought together 15 microbiologists from around the world in a closed roundtable to discuss the draft GAP-AMR. The summary of the conversation is detailed below. Due to the closed nature of the event, we cannot disclose names, but expertise ranged from clinical microbiologist, healthcare providers, environmental microbiology, bioinformatics, to the intersection of AMR and inequalities. These microbiologists are based in the UK, the US, Sweden, Germany, Thailand, and Nepal.

Greater Capacity and Infrastructure for Data

There is an urgent need to increase capacity and infrastructure for the collection, analysis, and storage of global data on the transport, diversity, ecology, and evolution of antimicrobial resistance (AMR). Equally important is the development of standardised databases on nucleotide sequencing of AMR genes and vectors, which would enable robust and comparable trend analyses across the globe.

The Global Antimicrobial Resistance and Use Surveillance System (GLASS) is a good first step as a global tool for tracking epidemiological, clinical, and population-level data. However, GLASS does not provide sufficient insights into the evolutionary dynamics of AMR, which would be crucial for broadening understanding and informing projections about future trends. Pairing access to data on the evolution of AMR and its genomic sequencing with drivers of AMR and standardised response protocols would create a centralised database informing policymakers on how to respond to growing AMR risk in their context. It must recognize that critical surveillance data, particularly environmental data, often resides within the private sector. To complete the AMR picture, the GAP should encourage collaboration with private entities through clear policies, incentives, or guidance on stakeholder engagement. This would help unlock valuable data sources and foster a more comprehensive and inclusive approach to AMR surveillance and response. Doing so could improve responses to outbreaks and encourage the sharing of best practices between countries.

Broadening the Scope of the GAP

Although the GAP mentions fungal and bacterial resistance, equal attention should be devoted to parasitic and viral AMR. Different contexts present varying risks and prevalence patterns, and while National Action Plans (NAPs) can and should reflect local realities, the GAP must highlight all types of AMR at the global level. This broad framing within the GAP is essential given AMR risks and transmission pathways will evolve, and

social drivers, including living conditions and access to healthcare and education, irrespective of the type, overlap. The GAP should make explicit the connection between socioeconomic drivers and interventions, emphasising that beyond One Health considerations, wider systemic drivers must be addressed to reduce the impact of AMR across the board.

Furthermore, this draft places undue emphasis on behavioural sciences and individual behaviour, overlooking the wider social and political systems that constrain people's choices. In addition to calling for behavioural change, the GAP should encourage countries to identify and respond to the social and systemic conditions that keep populations in poor health.

Moreover, awareness-raising is mentioned as a tool to address AMR; however, evidence suggests that such initiatives often fail to reach new audiences and can create echo chambers, limiting their effectiveness. If awareness campaigns manage to reach new audiences, individuals will need the tools to implement lessons learnt. Given some of the social and systemic determinants of health, behaviour change must be supported by policies addressing these drivers of AMR. Therefore, if such campaigns are to be utilised, they must be multifaceted and engage stakeholders, including antibiotic consumers, prescribers, farmers, manufacturers, and environmental management groups with specific and actionable changes given their context. Challenges capturing reliable data to highlight behaviour change should be also considered.

Intra- and International Considerations

Recognising the borderless nature of AMR, the GAP should encourage international coordination, ensuring that NAPs are designed with opportunities for cross-border and cross-sector cooperation. Such coordination is particularly important in geographically isolated areas where responses may otherwise be fragmented. Beyond cooperation between states, the GAP would benefit from a greater focus on the role of NGOs, philanthropists, and development partners in providing essential services such as healthcare and development aid. At present, there is mention of development partners involvement in securing sustainable funding, but their role in delivery must also be explored and detailed.

Reference to Emerging Technologies

The draft's references to emerging technologies, such as artificial intelligence, are welcome but incomplete. Access to new technologies must be equitable and open access, and countries have a responsibility to share innovation and expertise. Artificial intelligence (AI), for example, has the potential to curb the development of inequalities in

access to data and analysis. However, if recommendations on integrating AI are to be made, it is critical to consider entry-level costs and the training required to avoid exacerbating existing inequalities. Initial costs may appear relatively low, but the sustained willingness of ministries to prioritise and invest in these technologies is key to long-term success. Political will on a national level impacts funding and prioritisation decisions; there must be an acknowledgement that lack of consistent funding may lead to brain-drain undermining progress in certain countries. The ability for emerging technologies to reduce inequalities is not inherent, as AI does not address structural drivers of inequalities. Therefore, if the GAP should promote the implementation of AI, guidelines on its equitable distribution and open access should be made to ensure it does not exacerbate existing inequalities. In addition, standardised protocols should be reconsidered to allow for a broader range of alternative methods or techniques that yield comparable results to conventional approaches. This flexibility would enable countries to select protocols that align with their available resources and infrastructure, while still ensuring data compatibility and comparability across borders. Such an approach would promote inclusivity, enhance accessibility, and strengthen global collaboration in AMR surveillance and response.

Clarifying Accountability for Strategic Objectives

For the GAP to be effective, accountability mechanisms must be clearly defined. Tangible recommendations, including case studies, on how countries can implement systems for accountability would be a valuable addition. Where delivery of aid and care is fragmented between actors, systems for accountability must reflect this complexity. Furthermore, accountability should serve as a means of identifying positive action and promoting best practices and not be utilised as a punitive measure.

Strengthening Monitoring and Evaluation (M&E)

The Monitoring and Evaluation (M&E) section of the draft GAP is currently weak, lacking clarity about whether it aims to measure the implementation of NAPs or NAPs impact on AMR. Stronger guidance is needed, including examples of precise indicators and their meanings. The ability to disaggregate data should be encouraged to ensure inequalities within countries can be identified and are not overlooked. However, indicators and metrics must not become overly prescriptive and burdensome, as they may be a deterrent to action if capacity is limited. A balance between concrete and specific recommendations and overly prescriptive requirements must be struck. Ultimately, the aim of the M&E section must be clarified to inform what metrics are most relevant.

Accelerating the Link Between Evidence and Policy

Given the rapidly evolving dynamics of AMR, a 10-year review cycle for the GAP is insufficient. More frequent reviews, supported by robust surveillance systems, are necessary to ensure that policies remain relevant. Communication between scientists, the private sector, and policymakers should be facilitated to adapt action plans with the most up to date data allowing countries to react to new challenges and opportunities.