

Report of the Sixth Meeting of the Global Leaders Group
on Antimicrobial Resistance
February 7 and 8, 2023

Chair:
Her Excellency Mia Amor Mottley
Prime Minister of Barbados

Vice Chair:
His Excellency Chris Fearne
Deputy Prime Minister and Minister of Health
of Malta

GLG member participants: *Mr Mohammed Mousa Alameeri (of United Arab Emirates); Ms Beatrice Atim Odwong Anywar (of Uganda); Prof António Correia de Campos (of Portugal); Prof C.O. Onyebuchi Chukwu (of Nigeria); Dr Guilherme Antônio da Costa Júnior (of Brazil); Prof Dame Sally Davies (of UK); Dr Jamie Jonker (of US); Dr Ernst Kuipers (of The Netherlands); Ms Sunita Narain (of India); Mr Yasuhisa Shiozaki (of Japan); Dr Jeffrey Scott Weese (of Canada); Prof Lothar H. Wieler (of Germany, participated virtually); and Ms Jennifer Zachary (of US).*

GLG ex-officio member participants: *Dr Tedros Adhanom Ghebreyesus (WHO, participated virtually), Ms Inger Andersen (UNEP); Dr QU Dongyu (FAO); Dr Monique Eloit (WOAH).*

GLG member apologies: *Dr Ahmed Bin Mohammed Bin Obaid Al Saidi (of Oman); Dr Maggie De Block (of Belgium); Prof Sir Jeremy Farrar (of UK); Mr Jakob Forssmed (of Sweden); Ms Grace Fu (of Singapore); Ms Dechen Wangmo (of Bhutan);*

Invited guest speakers: *Ms Jacqueline Alvarez (virtual); Mr James Andersen; Dr Manica Balasegaram (virtual); Mr Carel du Marchie Sarvaas; Mr Dennis Erpelding (virtual); Dr Sabiha Essack (virtual); Dr Corey Forde; Ms Vanessa Frazier (virtual); Ms Abigail Herron (virtual); Dr Lisa Indar (virtual); Dr Hajime Inoue; Mr François Jackman; Ms Ashna Kibria (virtual); Ms Annie Kneeder (virtual); Dr Werner Obermeyer (virtual); Dr Lesley Ogilvie; Mr Kevin Outterson; Dr Mark Schipp; Mr Henry Skinner; Dr Keith Sumption; Dr Ed Topp (virtual); Dr Adrian van den Hoven (virtual); Dr Jaap Wagenaar (virtual); Dr Marijke Wijnroks; Dr Javier Yugueros-Marcos (virtual);*

Invited observers from Barbados: *Dr Anton Best; Dr Edmund Blades; Mr Edsel Chase; Dr Kathy-Anne Clarke; Mr David Elcock; Dr Corey Forde; Mr Danny Gill; Dr Marquita Gittens-St Hilaire; Mrs Katrina Harte; Mr Anthony Headley; Ms Maria Ingram; Mr Michael James; Ms Starlene Jones; Ms Alies Jordan; Ms Lisa Reid; Dr Leslie Rollock; Dr Dwayne Smith; Ms Melissa Straker-Taylor; Mrs Lisa Thomas; Mrs Gail Trotman; Dr Mark Trotman; Dr Jerome X Walcott; Mr Matthew Wilson; Dr Beverley Wood.*

Process of the meeting: The sixth official meeting of the [Global Leaders Group](#) (GLG) on Antimicrobial Resistance (AMR) was held in person for the first time at the Sandals Royal Barbados in St Lawrence Gap, Barbados on 7 and 8 February 2023. The meeting was chaired by H.E. Mia Amor Mottley, Prime Minister of Barbados and H.E. Chris Fearne, Deputy Prime Minister and Minister of Health of Malta. A new UNEP report, [Bracing for Superbugs: Strengthening environmental action in the One Health response to antimicrobial resistance](#) was launched during the meeting.

The official agenda for the two-day meeting included: (1) Presentation from the Secretariat on progress in implementing the GLG action plan and current challenges and priorities; (2) Financing the global response to AMR; (3) The role of the private sector in the global response to AMR; (4) Building towards the UN General Assembly High-level Meeting on AMR in 2024; (5) The environment and AMR; (6) Research and development; (7) Political action for integrated surveillance; and (8) Developing and scaling up animal health systems to mitigate AMR. GLG members facilitated the sessions, which included external guest speakers. Finally, the GLG conducted a closed meeting of its own and discussed key next steps.

Opening of the meeting and welcoming remarks: In her welcoming remarks, the chair, H.E. Prime Minister Mottley, introduced the five new GLG members [Mr Mohammed Mousa Alameeri (of United Arab Emirates); Ms Beatrice Atim Odwong Anywar (of Uganda); Mr Jakob Forssmed (of Sweden); Dr Jamie Jonker (of US); and Dr Ernst Kuipers (of The Netherlands)]. She thanked H.E. PM Sheikh Hasina for co-chairing the group for the last two years and recalled the urgency of addressing AMR. The Principals of the Quadripartite organizations gave introductory remarks and commended the progress achieved, notably raising the political profile of AMR, initiating the study to estimate the costs of inaction and build the economic case for AMR, reducing antimicrobial use in the agri-food sector and better understanding of the One Health approach and the environmental dimensions of AMR.

1. Implementing the GLG action plan and priorities

The GLG reviewed its achievements to date and committed to an ambitious plan of action for the next two years

1.1. Progress across all GLG priorities noted: Haileyesus Getahun, Director of the Quadripartite Joint Secretariat (QJS) on AMR, [presented](#) on the key GLG achievements to date and highlighted current priorities based on the rolling GLG action plan. Major progress was achieved across all six priority areas of the GLG action plan over the last two years. Key achievements include the UNGA resolution calling for a high-level meeting on AMR in 2024; progress in integrating AMR in the Intergovernmental Negotiating Body (INB) process to draft a WHO convention, agreement or other international instrument on pandemic prevention, preparedness, and response (WHO CA+); and numerous GLG statements, calls to action and other publications on key topics, including a pocket guide on AMR for ministers across sectors.

The GLG commended the Secretariat for its work and noted that the action plan and its deliverables had helped to focus their activities. They called for a high level of ambition for future GLG activities with due consideration to the long-term key performance indicators. GLG members were urged to advocate with their respective national delegations to help address current gaps in the draft WHO CA+.

1.2. More ambition and action are required on transforming systems: Some members suggested that the transforming systems priority in the GLG action plan should be more ambitious and aim for elimination of all antimicrobials for growth promotion in animals, rather than just those that are medically important. While the GLG agreed with the action plan's focus on disease prevention in animal health and food systems, several members noted that more attention is needed to affordable and locally tailored prevention approaches at country level. The targets in the Muscat Ministerial Manifesto on antimicrobial use in agri-food systems were noted. Members emphasized that their implementation should be supported by scientific evidence- and outcome-oriented actions to drive change.

1.3. Simplified language on AMR is still a major challenge: The GLG noted that a lack of simple language and messaging on AMR across sectors that can be used for raising awareness - particularly among the general public and decision makers - hinders progress. Outreach messages to different Ministries and decision makers also have to be tailored to their way of working and thinking.

2. Financing the global response to AMR

Speakers in this session:

- Marijke Wijnroks, Chief of Staff/Head of the Strategic Investment and Impact Division, Global Fund to Fight AIDS, Tuberculosis and Malaria (GF), [highlighted](#) AMR investments through existing grants and described the Global Fund's new strategic approach to funding pandemic threats, including AMR. Funding for AMR is possible through the current cycle provided that country dialogues include AMR in their funding requests to the Global Fund. She also reiterated the unique position of the Global Fund to accelerate progress in AMR and pandemic preparedness as it brings transparency, experience and results in working with countries.
- Hajime Inoue, Advisor, Health, Nutrition and Population, Global Engagement, The World Bank, discussed opportunities for financing of AMR and One Health responses through the current first round of financing from the Pandemic Fund. He underlined that GLG advocacy actions targeting the Ministers of finance as governing bodies of the WB are key in unlocking financing for AMR through existing funding sources.
- Abigail Herron, Global Head of ESG Strategic Partnerships, Sustainable Finance Centre for Excellence, Aviva Investors, [discussed](#) opportunities to increase private investment in the AMR response and lessons for AMR from climate-related investment. She suggested as an action to collaborate with the GLG in commissioning work to explore innovative financing options for AMR including impact wedges, AMR investment bonds or other approaches, learning from what has been done for climate financing and biodiversity.

The GLG emphasized the urgent need for financing mechanisms to support the implementation of national action plans and to address the antibiotic pipeline and access crises through investment in research and development.

2.1. Financing mechanisms for implementation of national action plans: GLG members emphasized the urgent need to increase financing of the AMR response in two streams: funding of national action plans across sectors through a new mechanism or including dedicated AMR allocations in existing mechanisms such as the Pandemic Fund and the Global Fund to Fight AIDS, TB and Malaria; and increased investment in research and development (R&D) to address the antibiotic pipeline and access crisis. Some concerns were expressed that existing funding mechanisms do not address all sectors of the AMR response. GLG members highlighted the need to build country demand for AMR-related financing from existing mechanisms across all sectors, encourage consumer demand and collaboration with investors, and the need for additional support for the AMR Multi-Partner Trust Fund.

2.2. Dedicated financing is needed for the antibiotic pipeline and access crisis: GLG members noted that the world faces a serious antibiotic pipeline and access crisis that requires innovative and disruptive measures. The members debated a range of proposed financing approaches, as well as the need for long-term reform of the international development financing architecture to better address antibiotics as global public goods. The discussions were also substantiated by additional information on the [Bridgetown initiative](#) - the new global financing pact that the GLG chair is championing and how such initiatives can benefit the antibiotic pipeline and access crisis. GLG members emphasized that all push and pull mechanisms should ensure equitable access to new products. The GLG agreed to send a letter to heads of G7 and G20 countries requesting that they finance national action plan implementation and R&D for new antimicrobials –particularly antibiotics - and ensure equitable access in LMICs.

2.3. The private investment sector has a crucial role to play in financing the AMR response: The GLG noted the opportunities presented to apply the climate investment bond model to reduce systemic risks posed by AMR, such as through “AMR investment bonds”, but also highlighted challenges with climate financing reaching where the need is greatest. It was suggested that development and local banks should play a greater role in funding approaches to address AMR. GLG members noted the specific policy asks from the private investment sector for an IPCC-like panel on evidence for action on AMR; a ban on antimicrobial use in agricultural supply chains based on the Montreal Protocol; coherent national responses which embed AMR in health, economic and trade policy and regulatory frameworks; and tighter standard setting and enforcement of water quality and antimicrobial discharge in wastewater.

2.4. A GLG Task Force on Financing will be established: Recognizing that increased and sustainable financing for the AMR response will likely come from “multiple streams that make a river”, the GLG decided to establish a financing task force to review the funding landscape, recommend advocacy approaches for the GLG, and develop proposals for the UNGA HLM on AMR in 2024. The task force could help the GLG to develop a better understanding of the antibiotic pipeline and access crisis and avenues for innovative financing for AMR, including for the implementation of national action plans. GLG members noted that the GLG report currently being drafted will be delayed slightly to include findings from the ongoing Quadripartite study on the cost of inaction and investment case for AMR, which is critical for advocacy leading into the UNGA HLM on AMR in 2024.

3. The role of the private sector in the response to AMR

Speakers in this session:

- James Andersen, Executive Director, Global Health, IFPMA, gave an [overview](#) of private sector engagement in the AMR response, including the 2016 Davos Declaration, work in the life sciences sector, and activities of the AMR Action Fund and the AMR Industry Alliance. He highlighted the human resource shortage in antibiotic R&D.
- Adrian van den Hoven, Director General, Medicines for Europe, [discussed](#) issues related to ensuring sustainable supplies of generic antibiotics, which account for 95% of antibiotics produced. He reiterated the need to adapt market policies that promote availability and equitable access to essential antimicrobials. He advocated for wide use of antimicrobial manufacturing standard to reduce the effluent in the environment.
- Carel du Marchie Sarvaas, Executive Director, Health for Animals, [presented](#) on challenges related to veterinary medicines and opportunities to reduce infectious disease in the animal sector through prevention measures, including vaccination and biosecurity. However, he highlighted the need to support LMICs through providing them with capacity and finances – especially to livestock producers/farmers to move away from treatment to prevention and nutrition measures.
- Ashna Kibria, Annie Kneedler, Dennis Erpelding, USAID-TRANSFORM, [presented](#) on the TRANSFORM project, a public-private partnership with between governments and poultry producers in low- and middle-income countries to promote antimicrobial stewardship and infection prevention and control. Best practices were presented from the livestock industry, where antimicrobial use has been reduced.

The GLG emphasized the vital role of the private sector in the AMR response across all sectors and noted the progress made. It particularly emphasized the role of agri-food companies in combatting AMR and the fundamental need to enhance infection prevention and biosecurity to reduce the use of antimicrobials in the agri-food system.

3.1. The private sector’s key role to transform animal health system was recognized: The GLG noted the reported reductions in antimicrobial use in animals in recent years and emphasized the need for transforming animal health systems, including the need for further investments in prevention, nutrition, vaccination and biosecurity, access to veterinary care, and greater engagement with agricultural producers, authorities and networks in LMICs. Recognizing the need for different approaches in different income settings, members welcomed the best practices illustrated by the TRANSFORM project to promote AMR stewardship and infection prevention and control in animals and to enable small farmers to access financing from local banks for such interventions. Given the likelihood of huge increases in livestock production in the coming years, several GLG members called for greater ambition to eliminate the use of all antibiotics for growth promotion and a more critical review of practices in intensive animal food production, including species-specific analyses and approaches. The need for simple, rapid diagnostic capacity (“pen-side testing”) was emphasized, particularly in LMICs.

3.2. Antimicrobial manufacturing discharge into the environment needs to be addressed: The GLG noted the willingness of members of the AMR Industry Alliance members to self-regulate with regard to antimicrobial manufacturing discharges through standards that have been developed. Several GLG members called for more attention to promoting and incentivizing the adoption of these standards to reduce antimicrobial discharges, with due consideration to unintended impacts on the global antimicrobial supply system. It was noted that ongoing efforts by the Quadripartite to regularly convene regulators of human and animal medicines could provide a sustainable forum for ongoing dialogue on several regulatory issues, including manufacturing standards.

4. Building towards the UNGA High-level Meeting on AMR in 2024

Speakers in this session:

- Werner Obermeyer, Director, WHO Office at the UN in New York, gave an overview of the process leading up to the UNGA HLM in 2024. He underlined the importance of identifying a date in September when Heads of Government are attending. He also noted that working closely with the group of Friends on AMR and linking with Friends groups on UHC and IPC. It is of paramount importance to have AMR included in other health HLMs on pandemic preparedness, UHC and TB later this year. He suggested to bring the GLG meeting outcome to New York possibly at the margin of the population and development commission meeting from 10-14th April 2023.
- Vanessa Frazier, Malta Ambassador and Permanent Representative to the UN and Francois Jackman, Barbados Permanent Representative to the UN, provided information that they have already expressed their interest in becoming co-facilitators of the HLM on AMR in 2024 to the President of the General Assembly.
- Haileyesus Getahun, Director of the Quadripartite Joint Secretariat (QJS) on AMR [noted](#) that the 2016 Political Declaration played a critical role in changing the paradigm of the global AMR response by galvanizing political momentum and action. He emphasized that the 2024 Political Declaration should build on the lessons learned from the 2016 Declaration and needs to include more specific and tangible commitments, including on targets and financing mechanisms.

The GLG noted the critical importance of the UNGA high-level meeting on AMR in 2024 to advance the AMR response and the need for bold and concrete commitments in the political declaration.

4.1. All roads should lead to the UNGA HLM in 2024: The GLG noted the significance of the 2016 HLM and the momentum that it generated in the AMR response, showing how specific commitments in key areas including surveillance, research and development and creation of the Interagency Coordination Group on AMR yielded tangible results. However, the 2016 political declaration lacked clarity and specificity in some key areas, including financing, and had several gaps. The GLG reiterated the importance of early advocacy activities to ensure that member states make bold and specific commitments in the 2024 political declaration. To build momentum and support in advance of the HLM, GLG members suggested that the Quadripartite should quickly finalize the economic and investment case on AMR and that the GLG should work with countries in the Group of Friends on AMR and other thematic Groups of Friends, including by raising attention to AMR in other intergovernmental processes, such as those on the SDGs, UHC, WASH, pandemic preparedness and response, TB, food systems and COP28 in 2023, and meetings of Quadripartite governing bodies, the UN Water Conference, the Summit of the Future and COP29 in 2024.

4.2. Bold, specific and tangible commitments for the political declaration: GLG members noted several issues which they considered important priorities for the 2024 political declaration and that require bold, specific and tangible commitments. This includes: **Financing** (a global financing instrument and domestic mechanisms for national action plan implementation and novel investment approaches for the antimicrobial pipeline and access crisis and effective and affordable innovations across sectors); **Accountable governance** (effective and functional multisectoral governance with formal and accountable global and national structures); **Surveillance for action** (strong sector specific and integrated surveillance systems); **Transformed systems** (effective and transformed human health, agri-food and animal health systems including eliminating antibiotic use for growth promotion); **Environment** (AMR addressed as part of biodiversity and climate solutions); **AMR and pandemic preparedness and response (PPR)** (strong link between AMR and PPR and effective implementation of the WHO pandemic accord, provided that it includes AMR provisions); and **Targets** (evidence- and outcome-oriented aspirational targets to drive change across sectors, building on the Muscat Ministerial Manifesto).

4.3. Preparatory work towards the UNGA HLM on AMR in 2024 is important: The GLG noted that advance work is needed to mobilize key stakeholders including farmers, investors and the private sector, and to increase public and policy maker awareness about the UNGA HLM on AMR in 2024. The GLG requested the Quadripartite organizations to update the 2015 Global Action Plan on AMR before the UNGA HLM on AMR in 2024, so that it adequately addresses the environment dimensions of AMR, access and manufacturing standards, and other critical gaps. In 2016 there was no mobilization of agriculture, livestock or environment ministers, and the approach should be different in 2024. The GLG proposed to use its influence at the various levels to reach out to heads of state, ministers and private sector executives. The general public needs to have targeted and customized messages about AMR. The role of creative approaches like [The Mould that Changed the World](#), a musical about AMR that was performed during the meeting, was also noted. GLG members expressed their commitment to supporting the implementation of the roadmap to the UNGA HLM on AMR in 2024 and to working closely with the co-facilitators and the President of the General Assembly to ensure that the meeting leads to bold, specific and tangible commitments. The Principals of the Quadripartite organizations expressed their strong support for the work of the GLG to prepare for the UNGA HLM on AMR in 2024 and their own commitment to helping ensure that the meeting is successful.

5. The environment and AMR: What's next?

Speakers in this session:

- Ed Topp, Co-lead author of the UNEP report *Bracing for Superbugs: Strengthening environmental action in the One Health response to antimicrobial resistance*, provided an [overview](#) of the issues discussed in the new report, and discussed the recommendations to address issues in pharmaceutical manufacturing and chemical chains, agricultural value chains and healthcare settings.
- Beatrice Atim Odwong Anywar, GLG member and Minister of State for Environment, Republic of Uganda, discussed the need for a greater focus on the environmental aspects of AMR in low- and middle-income countries. She highlighted that AMR in the environment remains understudied and inadequately addressed. She emphasized the importance of capacity building, regulation and enforcement, and simplifying the science to make it palatable to the general public.
- Jacqueline Alvarez, Chief, Chemicals and Health Branch, Economy Division, UNEP, emphasized that while further research into the environmental aspects of AMR is vital, there is already sufficient knowledge to act. She emphasized that prevention is key and recalled that the climate and biodiversity crises provide a platform that could be used to address the environment dimension of AMR. She noted that private sector engagement with clear corporate responsibility is not complete and that the GLG can advocate to step up this area.
- Inger Andersen, Executive Director UNEP, discussed the UNEP report in the context of the triple planetary crisis of climate change, pollution and biodiversity loss. She laid out a plan including a commitment to strengthen the team that works on AMR in UNEP and using the upcoming UN water conference (March 2023), the UN high level political forum (September 2023), the COP, UNEA (Feb-March 2024) and the Summit of the Future in 2024 to highlight AMR.

*The GLG welcomed the new UNEP report *Bracing for Superbugs: Strengthening environmental action in the One Health response to antimicrobial resistance* and called for greater efforts to mainstream the environmental dimensions of AMR across all sectors.*

5.1. The UNEP report is a major milestone: GLG members and Principals of the Quadripartite organizations welcomed the UNEP report as a major milestone in terms of helping to bring the environmental dimensions of AMR into the mainstream and identifying priority actions. These priorities include environmental governance, prevention and management of antimicrobial pollutants across sectors, surveillance, and financing. They also welcomed the report's focus on the need for additional evidence through surveillance, risk science and use of new technologies, such as genomic- and DNA-based tools. Major research questions include determining the impact of AMR in the environment on human and animal health and approaches to treatment and reuse of antimicrobial waste. The GLG noted that further work is required to determine ways and means of implementing the report's recommendations in LMICs, especially in intensified aquaculture settings. Actionable and acceptable solutions such as guidelines for small farmers are recommended. It was noted that some areas still need more data, such as better understanding of the impact of the environment dimensions of AMR on human health, and the impact of AMR and antimicrobial use on environmental health.

5.2. It is critical to include environmental aspects of AMR in national action plans: GLG members recalled that the 2015 Global Action Plan on AMR did not address the environment and suggested that the new findings from the UNEP report will be useful in its revision. At country level, GLG members noted the need for improved normative guidance including pollution standards, greater attention to the environment in

national action plans, investments in infrastructure and systemic change (including with involvement of development banks) with a focus on prevention and alternatives to antibiotic use in animals. They also emphasized the importance of attention to AMR in aquaculture and to weaving the environmental dimensions of AMR across development sectors, including water and food systems.

6. Research and development

Speakers in this session:

- Lesley Ogilvie, Secretariat Co-Lead, Global AMR R&D Hub, gave an [overview](#) of the research and development funding landscape for new antimicrobials and alternatives in human and animal health. She discussed the online dynamic dashboard that provides a snapshot of R&D funding for AMR.
- Henry Skinner, Chief Executive Officer, AMR Action Fund, [presented](#) an overview of the clinical pipeline for antimicrobials targeting priority pathogens, describing it as “fragile and insufficient to meet the global challenge of AMR”. Venture funding for antimicrobials is stagnant and many companies are exiting antibiotic R&D due to market failure. He recommended strengthening the pipeline by addressing the market issues, and strategic investments in antimicrobials as a global public good.
- Kevin Outtersson, Executive Director and Principal Investigator, CARB-X, [presented](#) an overview of the pre-clinical pipeline for new antimicrobials and alternatives. He estimated that six (6) novel antibacterial products would need about USD 12 billion in 6 years to reach distribution stage.
- Manica Balasegaram, Executive Director, GARDP, [discussed](#) the partnership’s work on clinical development of antimicrobials for priority pathogens and populations, as well as the work of the SECURE early access initiative, and recommended that governments should finance late-stage clinical development mainly in highly endemic countries and LMICs.
- Mark Schipp, Chief Veterinary Officer, Australia and External Advisor to the GLG, [discussed](#) challenges related to AMR in animal health and current research and development priorities. He discussed strategies to minimize the use of antimicrobials in animals including investing in vaccines, diagnostic tools, enhanced biosecurity and nutrition.

The GLG is gravely concerned about the crisis in the R&D of new antibiotics and emphasized the need for increased public and private investments in R&D across sectors, including for animals.

6.1. The shrinking R&D space is of great concern: GLG members discussed the crisis in the R&D pipeline for antimicrobials and noted with great concern the lack of scientists entering the field and the departure of major pharmaceutical companies and investors from the space. It was also noted that while 80 per cent of innovation is now led by small and medium enterprises, there is a lack of a viable market for new products that has led to the bankruptcy of many of the companies. The GLG welcomed the vital role played by public-private partnerships such as CARB-X and GARDP to sustain pre-clinical and clinical development of new antimicrobials and vaccines. It also recognized the AMR Action Fund that enhances private sector investment. However, the GLG noted that more resources and initiatives are needed to address the crises.

6.2. R&D related to AMR in animals is weak: The GLG noted an imbalance in that nearly 90 per cent of R&D investments are in human health, but 70 per cent of antimicrobial consumption is in animals. R&D priorities in the animal sector include pharmacobiology and optimal dosage of veterinary medicines; new diagnostics; drivers of AMR development and transmission among animals and between humans and animals; and social science. There is also very little known about how pesticide and fungicide use in crops contributes to AMR in humans and animals.

6.3. Joint recommendations noted: The GLG members took note of the five joint recommendations made by the presenters in the session that (1) WHO should formalize a numerical target of “highly impactful” antibacterial treatments for the next decade so that governments and philanthropic organizations can compare needed and expected investments to guide their long-term funding; (2) governments should close the funding gap for early-stage product development in order to replenish the clinical pipeline with much-needed, innovative and “highly impactful” projects; (3) governments should close the funding gap for clinical development, registration, manufacturing, post-approval trials and sustainable access in high-burden, low- and middle-income countries; (4) governments should implement pull incentives to bring private investors back into antibacterial research and development while ensuring equitable access; and (5) provided there are adequate funding mechanisms in place, pharmaceutical companies should align their R&D programs to address unmet needs defined under the WHO Priority Pathogen List and ensure equitable access.

6.4. Next steps: The GLG will facilitate engagement with stakeholders to further discuss the challenges of sustainable R&D to inform future GLG engagement on solutions for the urgent antibiotic pipeline and access crisis. Development banks should be involved in the discussions. Industry discharge standards must be agreed and implemented in a context-specific manner. It was also noted that the opportunity offered by the EU pharma strategy and electronic labelling of pharma products should be seized to advocate for inclusion of manufacturing standards and equitable access to antimicrobials.

7. Political action for integrated surveillance

Guest speakers in this session:

- Lisa Indar, Director, Surveillance, Disease Prevention and Control Division, Caribbean Public Health Agency (CARPHA), [described](#) efforts in the region to implement integrated surveillance “from farm to table”.
- Corey Forde, Executive Director of Clinical & Diagnostic Services, Queen Elizabeth Hospital, Barbados, [discussed](#) enabling factors in strengthening integrated AMR surveillance at the national level, including political leadership; regional support; a structure for communication, coordination and data sharing; and engagement of the private sector.
- Sabiha Essack and Jaap Wagenaar, Co-chairs of Quadripartite Group on Integrated Surveillance, [discussed](#) the mission of the new group to develop a technically feasible proposal for implementation of integrated surveillance that is adaptable in low-resource settings, including the minimum technical needs for sector-specific and integrated surveillance. The speakers emphasized the underlying principle of integrated surveillance as “data for action”.

Because “data builds trust”, the GLG highlighted the need to strengthen sector-specific systems, which will provide the foundation for integrated AMR-related surveillance and translating data into action

7.1. Translating evidence to action is crucial: GLG members noted that “data builds trust”, emphasizing the importance of surveillance for the AMR response and the need for good baseline and monitoring data to assess the prevalence of pathogens and the use of antimicrobials, set priorities, and measure progress across sectors. They emphasized the need for greater capacity in countries to translate evidence into action. They noted that the key challenges in implementing integrated surveillance for AMR are consultation, coordination and communication between sectors, and lack of capacity and financing, particularly in LMICs.

7.2. Opportunities to strengthen AMR surveillance: GLG members recognized the valuable contribution of the Fleming Fund to AMR-related surveillance, as well as support provided through the Multi-Partner Trust Fund. GLG also noted that opportunities exist to strengthen laboratory and other surveillance infrastructure through mechanisms such as the Global Fund and the Pandemic Fund. Overall, countries should aim to integrate AMR-related surveillance into existing systems, such as surveillance for specific diseases, food safety and animal health, as well as water quality and wastewater surveillance. It was noted that with regard to integrated surveillance the GLG has a role to play in promoting multisectoral governance; the need to build on existing systems; data harmonization and sharing; external and domestic resource mobilization; and increasing political commitment to AMR-related surveillance in international fora, including the G7, G20 and the 2024 HLM on AMR.

GLG members welcomed the establishment of the Quadripartite technical group on integrated surveillance and the ongoing work of the GLG taskforce on integrated surveillance led by Professor Lothar Wieler.

8. Developing and scaling up animal health systems to mitigate AMR

Speakers in this session:

Keith Sumption, Chief Veterinary Officer, FAO, and Javier Yugueros-Marcos, Head of Department, Antimicrobial Resistance & Veterinary Products, WOA, jointly [presented](#) on key issues in the animal health sector, emphasizing the importance of implementing international animal health standards and the need for balanced funding across the human and animal health sectors. They noted that animal health systems comprise both public and private sectors but access to these services is poor in some regions, mainly due to lack of a qualified workforce in Africa and Asia. There are documented best practices of collaboration between animal and human health systems in terms of integrated surveillance for common pathogens or antimicrobials. Very few mechanisms currently exist to increase vaccine development for animals and the GLG was asked to advocate for more investment in R&D for animal health countermeasures, including vaccines and alternatives to antimicrobials.

The GLG welcomed the closer collaboration between FAO and WOA to address AMR and other challenges by strengthening animal health systems

8.1. Strong animal health systems are critical for an effective AMR response: GLG members recognized the diverse components of the animal health sector, including public and private sector actors, and professionals, paraprofessionals, and community animal health workers. Investments in capacity are needed in many LMICs, including in professional skills and use of data. Important progress has been made in recent years in surveillance of antimicrobial use in animals, with encouraging but still insufficient reductions reported. Around 12 per cent of WOA members report continued use of antibiotics for animal growth promotion. Falsified and substandard veterinary medicines remain a challenge. Examples of best practice are also evident in many countries, including approaches such as farm certification systems for good animal husbandry, communities of practice for animal health professionals, mobile applications, the scale-up of vaccination programs, and virtual learning opportunities that include AMR risks. GLG members noted the importance of strengthening prevention in animals and the need for interventions to improve decision-making and stewardship, as well as the provision of incentives for food producers at the farm level. The AMR Multi-Stakeholder Partnership Platform was proposed as a venue to further discuss these challenges.

8.2. Closer collaboration between FAO and WOA recognized: GLG members were encouraged by the increased focus on innovative and cost-effective solutions to challenges in the animal health sector and the closer collaboration between FAO and WOA. Further discussions will explore how to optimize funding across sectors, and how to implement inter-related systems. The GLG will advocate for improved animal health systems tailored to every setting, including approaches to help primary producers reduce the need for antimicrobials and development of rapid diagnostics at farm level to optimize antimicrobial use when required. The GLG recommended that FAO, WHO and WOA align their understanding on prevention and on the list of medically important antimicrobials for humans.

9. Closing of the meeting

The Chair thanked participants for travelling to Barbados and their engagement in the meeting. Among highlights, she noted the critical importance of the UNGA HLM on AMR in 2024 and reiterated the GLG's call to the Quadripartite for simpler and more accessible information and advocacy materials on AMR, especially to engage decision-makers, the public and young people. She called on the GLG to continue its focus on the need for urgency, ambition, and bold and concrete commitments in the response to AMR, particularly to ensure sustainable financing mechanisms that address the antibiotic pipeline and access crisis and support implementation of national action plans.

/END