ISSUE #1

AMR Alert

Bulletin on AMR Surveillance in Nigeria

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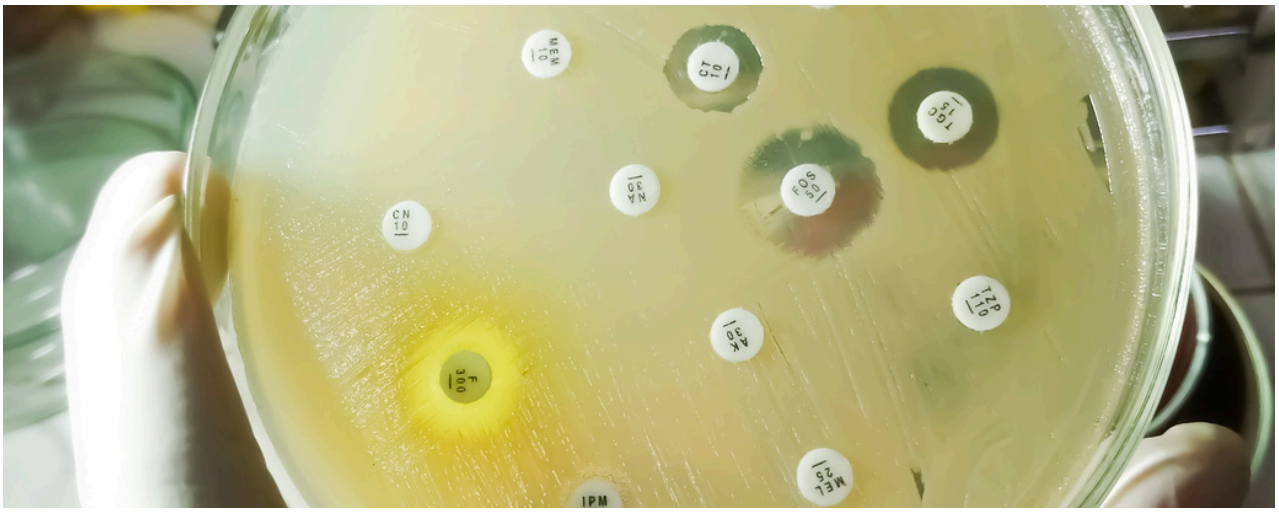


Welcome to the first edition of the AMR Alert, a newsletter highlighting antimicrobial resistance (AMR) surveillance efforts in Nigeria.

In this issue, we explore efforts to kickstart the second phase of the the Fleming Fund Phase II Country Grant (FFCG II) project on AMR surveillance in Nigeria for informed decision-making in the fight against antimicrobial resistance in Nigeria.

In this newsletter you can expect:

Nigeria Hosts First National Fleming Fund Grantees Meeting

Stakeholders across sectors met to strengthen coordination, foster collaboration, and advance the One Health AMR agenda.

AMR Lab Systems Get a Boost

Key advocacy engagements and institutional buy-ins are strengthening laboratory infrastructure and sustainability for AMR testing.

Evaluating AMR Surveillance Infrastructure

An assessment of FFCG II interventions has identified early wins and areas for further investment.

Workforce Capacity Building in Focus

Training and mentoring programs are enhancing technical skills in AMR surveillance among animal and human health personnel.

This newsletter is an initiative of the Management Sciences for Health, the lead implementer of the Fleming Fund Phase II Country Grant (FFCG II) in Nigeria, focused on supporting the government of Nigeria in combating AMR through surveillance.

From The Desk of The Project Director

Dear Colleagues and Partners,

Welcome to the maiden edition of AMR Alert, your dedicated quarterly bulletin for staying informed about the critical work in antimicrobial resistance (AMR) surveillance across Nigeria. We launch this initiative with great enthusiasm, as a key component of the Fleming Fund Phase II Country Grant (FFCG II) project led by Management Sciences for Health (MSH). Our collective mission is to bolster the Nigerian government's efforts in combating AMR, a formidable threat to public health and national development.

This first issue marks the beginning of an exciting and crucial phase. We are building upon the foundational work of the previous Fleming Fund cycle, learning from its successes and addressing its challenges, as we embark on strengthening and expanding AMR surveillance in Nigeria.

The urgency of our work cannot be overstated. AMR is a global health crisis, and its impact is profoundly felt in Nigeria. With over 260,000 cases attributed to AMR annually, Nigeria ranks 20th globally in death rates caused by drug resistance. The potential economic consequences are equally alarming, with projections suggesting that AMR could erode up to 5% of our nation’s GDP by 2050. Robust and sustained AMR surveillance is not merely a health imperative; it is essential for safeguarding our health security, protecting our businesses, ensuring the integrity of our food production systems, facilitating trade, and fostering overall economic development.

Recognising this critical need, the Nigerian government has prioritised strengthening AMR surveillance as a core objective within the newly launched One Health AMR National Action Plan 2.0. The FFCG II project, implemented by MSH in collaboration with the Antimicrobial Resistance Coordinating Committee (AMRCC) and the tripartite sectors of Human Health, Animal Health and Environment Health, with funding from the UK Government Foreign, Commonwealth, and Development Office (FCDO), is a direct response to this strategic objective. Our work is guided by Nigeria's National AMR Coordination Committee, which brings together all key actors in the One Health--human, animal, environmental and plant health--sectors. This approach emphasises and enables the all-round generation of high-quality AMR data, rigorous data analysis, effective communication of insights to decision-makers, and the promotion of sustainable investment in AMR control.

This edition of AMR Alert focuses on the crucial activities undertaken in the first quarter of the FFCG II project. It details the initial steps taken to establish a strong foundation for the work ahead. We spotlight the Political Economy Analysis (PEA) conducted to understand the factors influencing data utilisation and the sustainability of One Health AMR surveillance in Nigeria. We also highlight the vital coordination efforts among Fleming Fund grantees and the baseline assessments conducted to evaluate and enhance AMR surveillance infrastructure across the country.

I am particularly proud of the collaborative spirit demonstrated by our partners and stakeholders. The successful convening of the first Fleming Fund Grantees meeting underscores our commitment to working together, avoiding duplication of efforts, and maximising our impact. The dedication to improving laboratory systems, as evidenced by the advocacy visits to key National Reference Laboratories, is also commendable.

As we move forward, this bulletin will serve as a platform for sharing updates, insights, and progress on our collective journey to combat AMR in Nigeria. I encourage you to actively engage with the information presented, provide feedback, and contribute to our shared success.

Thank you for your commitment to this critical endeavour. Together, we can make a significant difference in the fight against AMR and protect the health and well-being of the Nigerian people.

Sincerely,

Babatunde Akinola, FAPH
Project Director, Fleming Fund Phase II Country Grant, Nigeria

Setting the Stage for Sustainability: Political Economy Analysis for Fleming Fund Phase II Country Grant

As Nigeria transitioned into the second phase of the Fleming Fund Phase II Country Grant (FFCG II), there was growing recognition that the technical gains from Phase I (renovated laboratories, trained personnel, and a functional data reporting platform) would not automatically translate into long-term impact. Two major gaps stood out: the lack of clear evidence that these systems could be sustained without donor support, and minimal use of AMR and Antimicrobial Use (AMU) data in informing real-time policy or practice.

The PEA was conducted to uncover the contextual realities that could either support or hinder the success and sustainability of AMR surveillance interventions in Nigeria. Specifically, the analysis sought to:

- Identify the political, economic, and social factors affecting AMR data generation, use, and sustainability.
- Understand the interests, power, and influence of stakeholders across the One Health space.
- Provide strategic insights into how MSH and its partners can implement Phase II activities in a way that is both impactful and lasting.

It became clear that stronger structures alone would not suffice; understanding the power dynamics, incentives, institutional behaviors, and stakeholder ecosystems influencing AMR efforts in Nigeria was crucial. This led to why the Political Economy Analysis (PEA) became a necessary starting point for Phase II.

Led by Management Sciences for Health (MSH), the PEA employed a problem-driven approach. It combined a desk review of existing literature with stakeholder mapping, 15 key informant interviews, and site-level case studies across human and animal health sectors. The methodology was designed to highlight not just technical needs but also operational and relational enablers or blockers of success. Data was transcribed and thematically analyzed to uncover barriers, opportunities, and stakeholder dynamics.

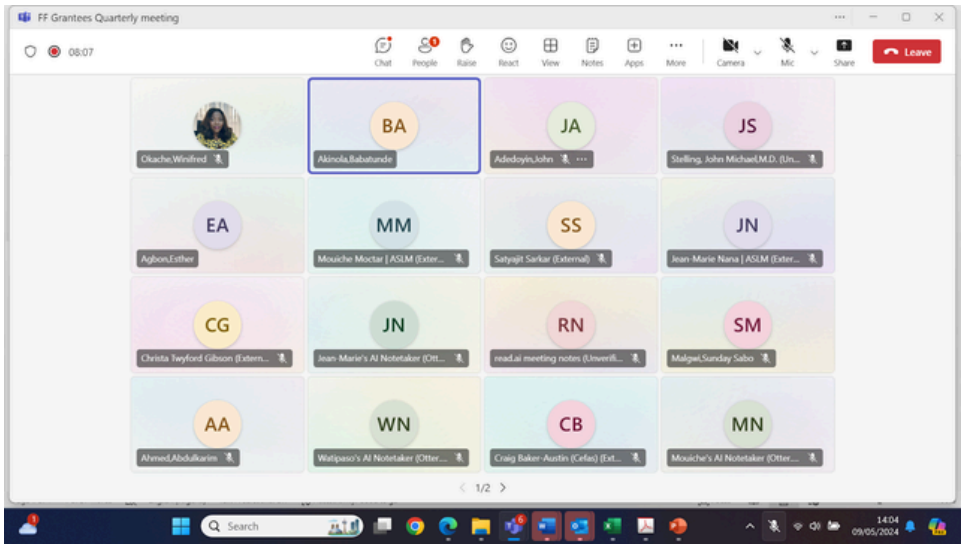
The PEA confirmed that while AMR surveillance systems have been established, they remain vulnerable to weak coordination, inconsistent funding, and underutilization of data. Importantly, the analysis revealed entry points for multisectoral collaboration, and the need to embed ownership within Nigerian institutions if Phase II gains are to outlast donor funding.

Unlike technical assessments, a political economy lens allowed implementers to ask the deeper "why" behind persistent challenges. This deeper understanding was essential to designing interventions that are not only technically sound but politically and institutionally feasible. Without this step, Phase II risked repeating patterns of short-term success without long-term sustainability.

Coordinating Action Against AMR in Nigeria: Key Outcomes from the First Fleming Fund Grantees Meeting

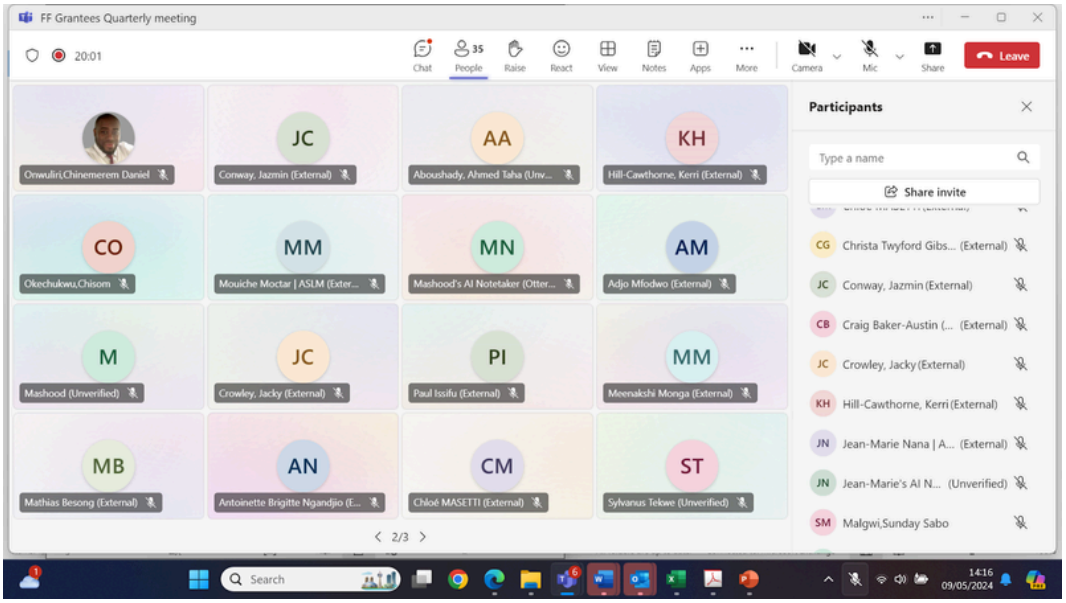
In September 2024, MSH hosted the first-ever virtual quarterly coordination meeting for Fleming Fund Grantees in Nigeria, to mark a significant step in the implementation of the Fleming Fund Phase II Country Grant (FFCG II), a project designed to combat AMR in Nigeria using a One Health approach and funded by the UK's Foreign Commonwealth Development Office (FCDO) in alignment with Nigeria's National Action Plan for AMR.

The meeting brought together at least 34 participants representing key organisations such as Mott MacDonald, MSH, African Society for Laboratory Medicine (ASLM), Commonwealth Partnerships for Antimicrobial Stewardship (CwPAMS), the World Health Organisation Network (WHONET), Rapid Assessment of Drug-resistant Acute Respiratory Infections (RADAAR), Antimicrobial Resistance in One Health (AMROH), Clinical Engagement, Centre for Environment, Fisheries, and Aquaculture Science (CEFAS), LSTM (Liverpool School of Tropical Medicine), GearUp, and Sequencing Africa (SeqAfrica).



It provided a platform for grantees to present updates on their Phase II activities, share progress, and discuss plans for the coming quarters. Most importantly, it laid the foundation for ongoing collaboration, ensuring that efforts are well coordinated, aligned, and impactful.

At the meeting, Dr Babatunde Akinola, the Project Director, who emphasised the importance of these quarterly sessions in fostering coordination among grantees. He noted that while this first session was virtual, future meetings would be held in person when a significant number of grantees are available in-country. The goal is to avoid duplication of efforts and optimise the impact of the program. The meeting also highlighted key outcomes relevant to policymakers, including the need for strengthened AMR surveillance systems, improved coordination among stakeholders, and increased funding for research and data collection. Emphasis was placed on integrating AMR surveillance into existing health policies and ensuring alignment with global standards.



Grantees were urged to remain committed to support capacity-building initiatives, enhance laboratory infrastructure, and promote data-driven decision-making. Additionally, fostering multi-sectoral collaboration, increasing public awareness, and implementing stricter regulations on antimicrobial use were identified as critical steps in combating AMR effectively.

This first quarterly coordination meeting set a solid foundation for future engagements. Grantees agreed on the need for a shared activity calendar and a more structured approach to communication to promote working together and leveraging each other's expertise so that Nigeria is well-positioned to strengthen AMR surveillance and policy interventions. As the project progresses, continued collaboration and alignment will be key to achieving long-term impact. The next coordination meeting will build on the learnings from this session, ensuring that efforts remain focused, strategic, and effective in the fight against AMR in Nigeria.

Building on Progress: Evaluating Nigeria's AMR Surveillance Infrastructure Under Fleming Fund Phase II

To kickstart Phase II of the Fleming Fund Country Grant Cycle focused on combating AMR in Nigeria, there was a need to build upon Phase I achievements, addressing gaps and strengthening AMR surveillance across human, animal, and environmental health sectors

MSH, the country grantee for FFCG II, in collaboration with key stakeholders from the govenrment, led a baseline assessment of **18 Fleming Fund sentinel sites**, which were the initial facilities that received Fleming Fund investments in equipment, training and capacity building for AMR surveillance in the phase I of the country project. They include 10 human and 8 animal health facilities. MSH also evaluated laboratory needs across various sites. These sites, all government-funded institutions, serve both rural and urban populations. The assessment aimed to review human resources, workflow processes, diagnostic capacity, infrastructure, equipment, and IT capabilities. Additionally, it sought to evaluate the training needs of laboratory staff and develop improvement plans for sustainable capacity building. The human health facilities visited include National Hospital Abuja, Obafemi Awolowo University Teaching Hospital Complex Ile-Ife, Aminu Kano Teaching Hospital Kano, the University of Nigeria Teaching Hospital Enugu, National Reference Hospital Gaduwa, Federal Medical Centre Jalingo,

Ladoke Akintola University of Technology Osogbo, University College Hospital Ibadan, University of Calabar Teaching Hospital, Lagos University Teaching Hospital and University of Ilorin Teaching Hospital. The animal health facilities visited include the Veterinary Teaching Hospital Zaria, Veterinary Teaching Hospital Nsukka, University of Ibadan Veterinary Medicine Teaching Hospital, University of Ilorin Veterinary Teaching Hospital, Usman Danfodio University Teaching Hospital, Sokoto, Federl Fisheries Laboratory Lagos and the National Veterinary Reference Laboratory Vom.

The assessment team began by engaging hospital leadership to gain support for their mission. The team conducted site inspections, interviewed key personnel, reviewed records, and used structured questionnaires to gather insights on laboratory practices and challenges. Key findings highlighted that most human health facilities provide care for a wide range of patients, including adults, paediatric cases, surgical and intensive care patients, and oncological cases.

Across 10 human health facilities, there are at least 3,600 inpatient beds, collectively serving nearly 89 million people. Laboratory funding comes primarily from facility budgets, with additional support from the Fleming Fund.

The assessment found that the laboratories supported by the Fleming Fund Phase I are staffed by qualified professionals and are equipped with essential tools. However, gaps remain. One notable issue is that the Federal Fisheries Laboratory in Lagos, despite being refurbished under Phase I, lacks equipment and is not currently contributing AMR data. Plans are underway to identify and support an alternative laboratory for aquaculture AMR activities.

Phase I provided critical infrastructural support, including facility refurbishments, provision of equipment such as autoclaves and biosafety cabinets, supply of reagents, and capacity building through training programs. It also enhanced data management by implementing the AMR Information System (AMRIS) and training staff in WHONET software.

Additionally, some of the laboratories required repairs to solar power systems, maintenance contracts for essential equipment, and improvements in water supply infrastructure. Equipment installation issues, stockouts of reagents, and poor electronic data management also hinder efficiency. Also, reference laboratories need to provide stronger support to sentinel sites. To sustain and enhance AMR surveillance, ensuring government ownership of AMR activities, advocating for improved funding mechanisms, implementing electronic data management systems, and strengthening laboratory accreditation processes would help address these challenges. This way, Nigeria can continue to generate high-quality AMR data, informing policies and interventions to combat drug resistance effectively.

Improving AMR Laboratory Systems: Advocacy Efforts and Institutional Commitments

Accurate, timely, and high-quality AMR testing is vital for strengthening AMR surveillance and ensures clinicians can make precise diagnoses, formulate effective treatment plans, and guide national policies based on AMR trends. National Reference Laboratories (NRLs) in both human and animal health play a key role in coordinating quality systems within the National AMR Laboratory Network, which comprises multiple reference and sentinel laboratories.

As part of the FFCG II project efforts to strengthen AMR surveillance in Nigeria, the UK Department of Health and Social Care's Fleming Fund delegation to Nigeria conducted an advocacy visit in August 2024 to assess AMR laboratory systems and to bolster commitments from NRLs to provide essential reference services to sentinel sites across Nigeria. This effort aimed to prevent duplication of resources while enhancing the efficiency of AMR surveillance. The institutions included the National Reference Laboratory (NRL) in Gaduwa, University College Hospital (UCH) in Ibadan, and the National Veterinary Research Institute (NVRI) in Vom.

Representatives from MSH), the Food and Agriculture Organisation Emergency Centre for Transboundary Animal Diseases (FAO-ECTAD), and national AMR coordination teams participated in discussions with leadership at these institutions to ensure continued support for phase II AMR activities.

At the NRL Gaduwa, discussions focused on enhancing feedback mechanisms, capacity building for External Quality Assessment (EQA), training, information sharing, and developing standard operating procedures (SOPs). The team engaged with key personnel overseeing genomics and laboratory operations, who demonstrated strong commitment to supporting phase II initiatives. During the visit to UCH Ibadan, the delegation assessed laboratory capabilities, including Fleming Fund investments in state-of-the-art equipment such as MALDI-TOF, biosafety cabinets, and incubators.

Advocacy efforts sought the continued institutional support for reference laboratory functions and participation in phase II activities. At NVRI Vom, discussions centred on strengthening the bacteriology reference laboratory to process a higher volume of isolates from sentinel sites. The visit included an assessment of key facilities, such as the biorepository, PCR laboratory, and BSL-3 laboratory, alongside a review of protocols for receiving and processing isolates. The leadership of NVRI also committed to supporting phase II activities, particularly in EQA and reference service provision.

Several challenges were identified across the laboratories, including poor infrastructure finishing, non-functional water taps, unreliable solar power systems, power fluctuations affecting critical equipment, and the lack of uninterruptible power supply (UPS) units for essential devices. To address these issues, next steps were outlined, including improving power and water supply, repairing laboratory equipment, and ensuring proper maintenance of diagnostic tools.

The advocacy visits successfully secured institutional commitments to sustain AMR surveillance efforts. Leadership at the visited facilities pledged to ensure donated equipment remains operational and continues to support national AMR response strategies. These efforts will enhance Nigeria’s laboratory systems, ensure that reliable AMR burden data are generated for long-term solutions and drive policy support that ultimately strengthens Nigeria’s ability to combat AMR effectively.

In The Next Edition

As we close out this first edition of the AMR Alert, we are reminded that the fight against antimicrobial resistance is a continuous one, built on coordinated action, sustained investment, and informed decision-making.

Here's what to look forward to in our next issue:

- **One Health in Action:** How stakeholders are aligning to combat AMR under the One Health AMR National Action Plan.
- **Capacity Building:** How training, assessments and accreditations are helping to drive Nigeria's AMR response.

Thank you for reading!

This bulletin is focused on sharing efforts on supporting the government in Nigeria on AMR surveillance, implemented by the Management Sciences for Health through the Fleming Fund Phase II Country Grant. For enquiries, feedback, and recommendations, reach the editorial team.

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