POLICY BRIEF

Strengthening Antimicrobial Resistance (AMR) Surveillance in Nigeria: An Urgent Call for Coordinated Action

AMR Burden in Nigeria

Nigeria ranks 20th globally in AMR cases, with over 263,400 AMR-related deaths annually and a projected GDP loss of 5-7% by 2050. AMR poses a significant public health and economic threat to Nigeria.

01.

Funding and Surveillance System Challenges

Weak laboratory infrastructure, fragmented data collection, poor multi-sectoral coordination, and heavy reliance on external funding (over 80%) hinder effective AMR surveillance in Nigeria, with majority of AMR studies receiving no funding.

02.

Laboratory and Data Gaps

Only 14 human, 6 animal, and 2 environmental sentinel labs operate nationwide, with limited AMR data submission to the Global Antimicrobial Resistance Surveillance System (GLASS) due to inconsistent reporting.

03.

Ongoing Policy Efforts

Nigeria's One Health AMR National Action Plan (NAP 2.0) (2024-2028), alongside initiatives like the WHO Tricycle Project and the Integrated National Environmental Health Surveillance System (INEHSS), aim to strengthen AMR surveillance and coordination.

04.

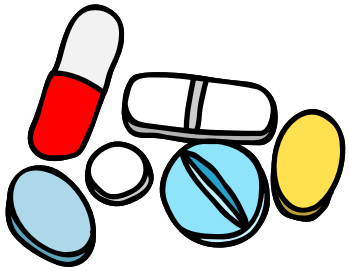
Key Recommendations and Actions

To address the burden of AMR, policymakers need to urgently increase domestic AMR surveillance funding, upgrade laboratories, establish a centralised AMR database, integrate AMR surveillance into national disease monitoring, and strengthen One Health collaboration.

05.

What's at Stake?

In less than 100 years since Alexander Fleming produced penicillin, the first antibiotic, Antimicrobial Resistance (AMR) has become a top 10 global health threat. AMR is a critical public health and economic threat to Nigeria. With over 263,400 AMR-related deaths annually and a projected GDP loss of 5-7% by 2050, urgent intervention is needed. Nigeria ranks 20th globally in AMR burden, with misuse of antibiotics in human health, agriculture, and animal farming contributing to the crisis. The lack of a robust surveillance system exacerbates the issue, leading to increased morbidity, mortality, and economic losses.



Why AMR Surveillance Matters Now

AMR is one of Nigeria's most urgent health security threats, endangering progress in disease control, food safety, and environmental protection. Surveillance plays a critical role in tracking resistance patterns, informing treatment guidelines, and guiding targeted interventions across human, animal, and environmental health sectors.

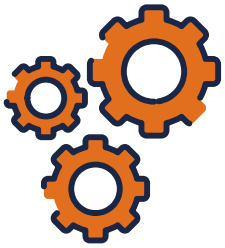
While Nigeria has shown policy commitment through its National Action Plans on AMR (2017–2022 and 2024–2028), implementation gaps remain—especially in funding, laboratory infrastructure, and cross-sector data coordination. Surveillance alone accounts for 17% of the $77.6 million budgeted under the latest action plan, reflecting its strategic importance. Strengthening surveillance systems will improve early detection, enhance the use of existing infrastructure, expand coverage to underserved areas, and boost the capacity of national reference laboratories, thereby advancing Nigeria's One Health approach.

The Data's Whisper: What AMR Surveillance Is Telling Us

Despite the policy frameworks in place, surveillance systems in Nigeria reveal several operational weaknesses. Networks are still underdeveloped in the animal, environmental, and plant health sectors, with limited laboratory accreditation and uneven adherence to surveillance protocols. Sentinel lab coverage remains low, with only 14 labs in human health, 6 in animal health, and just 2 in environmental health sectors: far below what is needed for robust, nationwide monitoring. Compounding the challenge is Nigeria's heavy dependence on external funding, while domestic investment remains minimal. Additionally, AMR surveillance is often siloed from other national infectious disease and public health response programmes, leading to missed opportunities for integrated action across ministries and agencies.

On the Ground: What We're Doing and Seeing

Several initiatives are helping Nigeria strengthen its AMR surveillance infrastructure, often led by international partners. A key one to note is the Fleming Fund Country Grant (FFCG), supported by UKAID and implemented by Management Sciences for Health (MSH), which is supporting the Federal Government of Nigeria in investing in laboratory systems and supporting more effective data collection and reporting. Through this project, the FFCG is enabling cross-sectoral monitoring of AMR trends in humans, animals, and the environment, aligned with the One Health approach needs of the NAP 2.0.



What's Working, What's Wobbly

Despite persistent challenges, Nigeria has made commendable progress in laying the groundwork for AMR surveillance. However, critical weaknesses in infrastructure, funding, coordination, and cross-sector integration continue to limit the reach and effectiveness of surveillance efforts. These progress and gaps are thus highlighted:

What's Working:

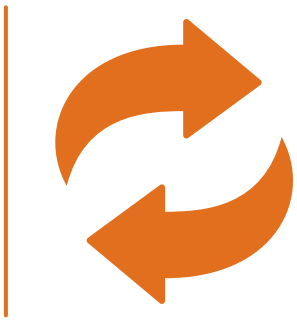
- Policy Commitment: Implementation of the National Action Plan on AMR (2017–2022) and the revised One Health AMR NAP 2.0 (2024–2028) shows sustained political will.
- Surveillance Networks: Functional networks exist across human, animal, and environmental sectors.
- Skilled Workforce and Infrastructure: Presence of national reference laboratories (NRLs) and trained personnel using WHONET, AMRIS, and INFARM for data management and analysis.
- Data Reporting: Ongoing contributions to national AMR databases and the Global Antimicrobial Resistance Surveillance System (GLASS).

What's Wobbly:

- Laboratory Capacity Gaps: Inadequate infrastructure, limited number of accredited labs, and shortage of skilled personnel and resources hampers AMR detection and monitoring.
- Limited Sentinel Site Coverage: Only 14 human health, 6 animal health, and 2 environmental health sentinel labs are active, which is far below national needs.
- Fragmented Data Collection and Coordination: Poor multi-sectoral coordination across human, animal, and environmental sectors limits consistent data reporting. Also surveillance remains fragmented and underutilized.
- Weak Cross-Sector Integration: There is minimal alignment of AMR surveillance with other public health and infectious disease programmes. Also is the lack of synergy across relevant MDAs (ministries, departments, and agencies).
- Funding Challenges: There is heavy reliance on external donors like the Fleming Fund and UKAID, while a significant proportion of AMR surveillance and research activities remain unfunded. As such, limited domestic investment undermines sustainability of AMR surveillance in Nigeria

Shifting the Needle: Lessons That Could Change the Game

Effective AMR surveillance is not just a technical challenge, it is a crucial driver for enhancing public health systems, guiding smarter policymaking, and fostering greater collaboration across sectors. Strengthening surveillance infrastructure and systems leads to improved evidence-based decision-making, which in turn informs more effective responses to AMR across human, animal, and environmental health sectors.



Increasing the number and capacity of sentinel sites ensures better representation of diverse geographic and sectoral contexts, enabling a more comprehensive understanding of AMR trends. Additionally, the quality and reliability of surveillance data are key factors in shaping sound national policies and contributing to global AMR monitoring. When surveillance is properly coordinated, it strengthens the One Health approach, enabling a more integrated response to AMR, reducing its related morbidity and mortality, and fostering a proactive, rather than reactive, public health framework.

Policy Moves We Recommend

Effective AMR surveillance is not just a technical challenge, it is a crucial driver for enhancing public health systems, guiding smarter policymaking, and fostering greater collaboration across sectors. **Strengthening surveillance infrastructure** and systems leads to improved evidence-based decision-making, which in turn informs more effective responses to AMR across human, animal, and environmental health sectors.

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The Ask: What We Need From You

To sustain and scale surveillance gains, we call on government leaders, donors, and private sector actors to champion and resource the following:

- ☑ Increased domestic funding for surveillance implementation and laboratory upgrades.
- ☑ Clearer national policies mandating data sharing and multisector coordination.
- ☑ Political leadership to embed AMR surveillance in national health security and development agendas.
- ☑ Stronger partnerships to support innovation, research, and workforce development in AMR surveillance.

References

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- History of Antibiotic Development: https://www.reactgroup.org/toolbox/understand/antibiotics/development-of-antibiotics-as-medicines/

This policy brief 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.