

# Implementation of the 2<sup>nd</sup> Generation National Action Plan for Antimicrobial Resistance in Nigeria

## KEY TAKEAWAYS

01



**Severe Health and Economic Impacts:** AMR is already associated with over 263,400 deaths annually in Nigeria and poses a significant threat to the economy, potentially reducing GDP by 5-7% and livestock production by 11% by 2050.

02



**Multisectoral Coordination is Essential:** Combating AMR in Nigeria requires the active participation and coordination of multiple ministries beyond health, including agriculture, environment, finance, and information.

03



**Enhanced Governance and Strategic Planning:** The new National Action Plan (NAP 2.0) for 2024-2028 introduces stronger governance structures, detailed operational plans, and specific interventions to address health inequities and improve coordination.

04



**Urgent Need for Sustainable Funding and Effective Leadership:** Addressing implementation challenges requires sustainable domestic funding, clear communication channels, alignment with national policies, strong cross-sectoral commitment, and strengthened local leadership to ensure the success of NAP 2.0.

## INTRODUCTION

### WHAT IS ANTIMICROBIAL RESISTANCE (AMR) AND WHY DOES IT MATTER?

AMR is one of the most pressing global health challenges of our time. AMR occurs when infection-causing microbes evolve to evade antimicrobial drugs. While it is a natural process, **AMR is accelerated by the overuse and misuse of antimicrobials** in human and animal healthcare, and crop and animal production. Antimicrobial agents include medicines such as antibiotics, fungicides, antiviral agents, and other products that have microbe-killing properties such as disinfectants, pesticides, and antiseptics (1). As human-induced AMR continues, infections will become more common and more challenging to treat. Thus, morbidity and mortality will rise. **In 2019, over 1.27 million people died** from AMR globally (2). **By 2050, the annual death toll is projected to climb to 10 million** (3). AMR also poses deep threats to the global economy. The World Bank estimates that, if unchecked, AMR will lead to annual global GDP losses of **US \$3.4 trillion** and push **24 million people into extreme poverty within the next 10 years** (4).

## WHAT THREAT DOES AMR POSE TO NIGERIA?

Low and middle-income countries (LMICs), including Nigeria, will bear the greatest burden of AMR (2,5). The most recent estimates of annual AMR mortality in Nigeria suggest that **263,400 deaths were associated with AMR in 2019, the 20<sup>th</sup> highest age-standardized mortality rate across 204 countries globally** (6). This surpasses the number of deaths attributed to other causes in Nigeria such as enteric infections, respiratory infections, malaria, HIV/AIDS and cardiovascular disease (6). Nigeria will also experience decreased productivity across sectors, biodiversity loss, and worsening poverty (4). Nigeria, as well as other LMICs, are projected to experience a **5-7% loss in GDP by 2050** if AMR remains unaddressed (5). In the animal sector, the country could witness an **11% loss in livestock production by 2050** (4). The implementation of National Action Plans (NAPs) is central to addressing the challenges associated with AMR and reducing its tremendous social and economic costs.

## NATIONAL ACTION PLAN (NAP) 2.0 IMPLEMENTATION IN NIGERIA

### MOVING FROM NAP 1.0 TO NAP 2.0

In 2017, Nigeria developed its first NAP for AMR for the years 2017 to 2022. Building on the implementation progress of the first NAP, a second NAP has been developed to combat the crosscutting drivers and consequences of AMR for the years 2024-2028.

There are four key improvements to NAP 1.0 made by NAP 2.0:

- NAP 2.0 Operational Plan:** The new operational plan describes the estimated cost and number of years to complete each sub-activity. These details will improve transparency and feasibility of the operational plan. It will also avoid duplication through more effective collaborative and synergistic implementation.
- Monitoring and Evaluation Framework:** This framework aims to monitor key activities over the next 5 years with time-bound targets to promote sector accountability. Mid-term reviews are required for all key performance indicators, rather than for select indicators as done in NAP 1.0. Reviews will be done by a team of One Health Ministries, partners, and stakeholders.

#### NAP 1.0 SUCCESSES

- Established a multi-sectoral One Health AMR governance and coordination structure
- Established a national laboratory network for AMR surveillance in animal health as well as protocols for AMR surveillance in poultry and aquaculture
- Incorporated AMR into various courses in the pre-service training for human and animal health care workers
- Launched the National IPC Programme 'Turn Nigeria Orange' to strengthen infection prevention and control in healthcare facilities
- Established One Health AMR technical working groups (TWG) in Borno and Kebbi
- Established a National One Health AMR Community of Practice

3. **Alignment with Global AMR Policy Documents:** NAP 2.0 draws on the biennial report for implementing the global action plan on AMR published by the World Health Organization (WHO), the Food and Agriculture Organization (FAO), the World Organization for Animal Health (WOAH) and the United Nations Environment Programme (UNEP) (7). It also utilizes surveillance guidance from the FAO and WOAH’s Global Strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials in Animals. Other key documents informing NAP 2.0 implementation include the WHO’s NAP AMR Implementation Handbook and people-centered approach to address AMR in the human health sector (8).
4. **Alignment with Other Nigerian Plans and Strategies:** NAP 2.0 aligns with several national plans, policies and strategies. These include: The National Action Plan on Health Security; The National Policy on AMR and its corresponding Strategic Plan of the Federal Ministry of Environment; The National Agricultural Technology and Innovation Policy of 2022-2027; The National Health Sector Development Plan; and the National One Health Strategic Plan.

## NAP 2.0 STRATEGIC OBJECTIVES

NAP 2.0 has six strategic objectives (Figure 1). While NAP 1.0 Implementation of all six is estimated to cost USD \$77,633,889.

Figure 1. Six Strategic Objectives of NAP 2.0



## IMPROVING MULTISECTORAL COORDINATION

Despite the progress made in the first NAP, implementation has been uneven and slower than anticipated for certain AMR activities. This is especially apparent in sectors outside of human health, including surveillance. However, Nigeria has laid a foundation for AMR surveillance in the agrifood systems and is starting to integrate surveillance in animals, humans, and the environment as per NAP 2.0. It also has limited capacity to strengthen AMR training and education in animal, agrifood and environmental sectors, despite strong progress in human health (9). Consequently, the projected rate of increase in antimicrobial use for agriculture in Nigeria is in the global top five (10). Given the cross-sectoral transmission of resistant pathogens, implementation challenges in one sector threaten progress made in others.

With the release of the second-generation NAP on AMR, Nigeria plans to build on the successes and address the shortcomings of the previous plan from 2024 to 2028. Effective implementation of the new NAP – facilitated by sustained engagement of the One Health sectors and related ministries, departments and agencies – is anticipated to mitigate the drivers of AMR and yield multiple benefits for Nigeria (Figure 2).

Figure 2. Expected Impact of NAP 2.0

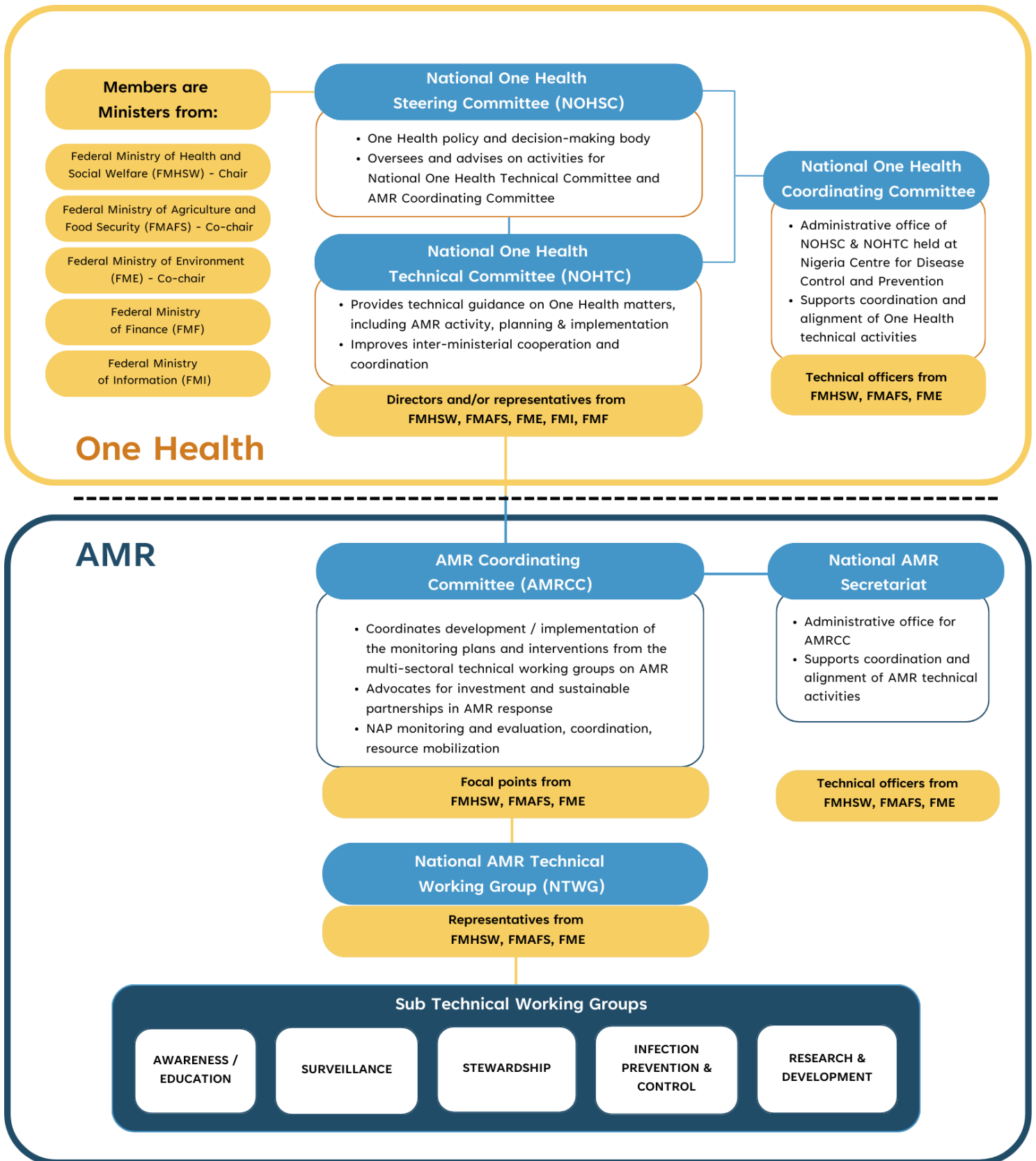


## WHAT IS THE GOVERNANCE STRUCTURE OF NIGERIA'S AMR RESPONSE?

Nigeria's comprehensive One Health AMR governance model (Figure 3) is strengthened by high-level political commitments for NAP 2.0 from relevant ministers through the National One Health Steering Committee (NOHSC) and support from the Quadripartite organizations.

Key ministries needed for effective NAP implementation include the **Federal Ministry of Health and Social Welfare, the Federal Ministry of Agriculture and Food Security, and the Federal Ministry of Environment**. These ministries are highly involved in fulfilling each of the six strategic objectives either directly or through their involvement with the NOHSC, the National One Health Technical Committee (NOHTC), the AMR Coordinating Committee (AMRCC), and the National AMR Technical Working Group (NTWG). They do so in coordination with each other and with the support, where needed, of other ministries such as the **Federal Ministry of Finance, the Federal Ministry of Information, and the Federal Ministry of Water Resources**.

Figure 3. Governance Structure for Nigeria’s One Health and AMR response





FEDERAL MINISTRY OF ENVIRONMENT



FMAFS  
FEDERAL MINISTRY OF AGRICULTURE AND FOOD SECURITY FEDERAL REPUBLIC OF NIGERIA



FEDERAL MINISTRY OF HEALTH AND SOCIAL WELFARE

## IMPLEMENTATION CHALLENGES AND RECOMMENDATIONS

Addressing the five challenges listed below through the associated recommendations presents an opportunity to accelerate and sustain the impact of Nigeria’s second NAP on AMR. These efforts require close collaboration and coordination across ministries.

# 1

**Explore how all relevant ministries can contribute funding specifically dedicated to NAP 2.0 implementation**

Though funding from international organizations and the private sector is necessary to implement NAPs in resource-constrained settings, this funding may be precarious and not guaranteed beyond the term of the second NAP. Stewardship and surveillance initiatives require domestic funding and political commitment to achieve sustainability.

# 2

**Establish a clear, standing coordination and communication mechanism to facilitate cross-sectoral NAP 2.0 Implementation**

Effective communication avoids siloed responses, resource loss and unfulfilled NAP objectives. The 2021 *One Health Governance Manual* describes types of communication between committees and TWGs in the AMR governance structure. Communication can be improved by clarifying the mechanism for facilitating each type.

# 3

**Ensure that related national policies and strategies are aligned with the objectives of NAP 2.0 to increase policy synergies.**

NAP 2.0 was developed to align with national strategic plans from various ministries in the Nigerian government. However, there is still the opportunity for misalignment with other, related national policies and plans to be implemented concurrently with NAP 2.0.

# 4

**Public awareness campaigns should focus on achieving behavioural change for AMR risk factors**

Fear and lack of public awareness, driven by socioeconomic factors should be addressed in NAP 2.0 implementation across One Health sectors. Fear of illness may cause patients to pressure prescribers for antimicrobials before diagnosis (11). Farmers fearing livelihood loss may overuse antimicrobials to protect their crops and livestock (11).

# 5

**Explore developing more detailed indicators in close collaboration with all relevant ministries to assess performance over time**

The current monitoring and evaluation plan does not have numerical targets. These are recommended to motivate stakeholders and promote transparency and accountability.

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