

African Region

REGIONAL COMMITTEE FOR AFRICA**ORIGINAL: ENGLISH**Seventy-third sessionGaborone, Republic of Botswana, 28 August–1 September 2023Provisional agenda item 10**REGIONAL STRATEGY FOR EXPEDITING THE IMPLEMENTATION AND
MONITORING OF NATIONAL ACTION PLANS ON ANTIMICROBIAL
RESISTANCE, 2023–2030 IN THE WHO AFRICAN REGION****Report of the Secretariat****EXECUTIVE SUMMARY**

1. Antimicrobial resistance (AMR) is one of the top 10 global public health threats facing humanity, with a higher burden in sub-Saharan Africa, where 1.27 million deaths were directly attributable to bacterial resistance in 2019. Inappropriate use of antimicrobials in human medicine and food production increases the likelihood of the emergence of AMR organisms and puts Member States at risk, as few replacement products or alternatives are in the pipeline.
2. In May 2015, the World Health Assembly adopted the Global action plan on antimicrobial resistance, with Member States committing to develop, implement, and monitor national action plans (NAPs) on antimicrobial resistance.
3. Forty-five (96%) Member States have national action plans on AMR, with 33 (76%) endorsed by national authorities. Despite major achievements, sustaining and escalating the AMR agenda faces significant challenges that need to be addressed to curb AMR.
4. Governments and partners from multiple sectors need to mobilize and coordinate efforts to address AMR and thus contribute to achieving global health security, universal health coverage (UHC) and the Sustainable Development Goals (SDGs).
5. The development of the Regional antimicrobial resistance strategy was prompted by the urgent need to accelerate the implementation of national action plans to fill the major gaps in the Region. The Regional AMR strategy aims to guide Member States' efforts to curb AMR, and prescribes key interventions to enhance NAP implementation in line with the "One Health" approach.
6. The Regional Committee is invited to examine and adopt this strategy.

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INTRODUCTION

1. Antimicrobial resistance occurs when bacteria, viruses, fungi, and parasites change over time and no longer respond to medicines, making infections harder to treat. The antimicrobial compounds used to control or prevent infectious diseases in humans, plants and animals, such as antivirals, antibiotics, antiparasitic drugs and antifungals are also found in the environment and water sources, and are concurrently accelerating the development of resistant genes.¹ The inappropriate use of antimicrobials in humans, plants and livestock increases the risk of infection with microbes that are resistant to available treatments and can cause severe illness and death, thereby highlighting the importance of One health perspectives to address AMR.²

2. Ten million people, including 4.1 million in the African Region, are expected to die from AMR organisms by 2050, while countries across Africa could lose up to 5% of their gross domestic product.³ In May 2015, WHO Member States adopted the Global action plan on antimicrobial resistance⁴ and committed to develop, implement, and monitor AMR NAPs.

3. AMR is a major threat to human-animal-environmental health, requiring a multisectoral approach. The Global action plan underscores the need for an effective “One Health” approach to optimize coordination among numerous sectors and actors, including human and veterinary medicine, agriculture, finance, environment and consumers. To prevent health care-associated infections, there is a need to ensure implementation of infection prevention and control (IPC) and water, sanitation and hygiene (WASH) measures in health facilities.⁵ Addressing AMR is a requirement for achieving global priorities such as the Sustainable Development Goals (SDGs) and ensuring global health security as stipulated by the International Health Regulations (IHR (2005)).

4. Eight years after the launch of the Global action plan, implementation of national action plans in the Region has been slow due to lack of political commitment, inadequate antimicrobial surveillance including insufficient laboratory capacity, limited capacity for the implementation of antimicrobial stewardship interventions and suboptimal IPC and WASH measures. The growing threat posed by AMR and the collective lack of regional progress calls for the development of a strategy contextualized to the Region's challenges, to better address AMR. The regional strategy will guide key interventions and approaches, and thus sustain the efforts of Member States to accelerate the achievement of the objectives of the Global action plan.

SITUATION ANALYSIS AND JUSTIFICATION

Situation analysis

5. The Region has high AMR-attributable morbidity and mortality, coupled with health system challenges. Based on a 2022 study, 4.95 million people worldwide died of AMR-related diseases in 2019. Of that number, 1.27 million were directly attributable to bacterial resistance in sub-Saharan Africa. The figure for all-age death attributed to AMR in Africa is over 27 per 100 000 deaths, compared to Australasia, which has the lowest rate at 6.5 deaths per 100 000.⁶

¹ Chan, O.S. et al, 2022. What and where should the next antimicrobial resistance policies focus on?. *Journal of Global Antimicrobial Resistance*.

² Velazquez-Meza ME et al. (2022), Antimicrobial resistance: One Health approach, *Veterinary World*, 15(3): 743-749.

³ World Bank. Drug-resistant infections: A threat to our economic future. March 2017

⁴ Global action plan on antimicrobial resistance. (<https://www.who.int/publications/i/item/9789241509763>, accessed 3 February 2023)

⁵ WHO: Prevention of hospital-acquired infections: a practical guide. Geneva, Switzerland: World Health Organization; 2002.

⁶ Antimicrobial Resistance Collaborators (2022). Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. *Lancet* (London, England), 399(10325), 629–655. ([https://doi.org/10.1016/S0140-6736\(21\)02724-0](https://doi.org/10.1016/S0140-6736(21)02724-0) accessed 3 February 2023)

6. The burden of AMR is exacerbated by lack of enforcement of antibiotic prescription and sale regulations, and its overuse in animal feed, leading to the spread of antibiotic-resistant strains. Moreover, circulation of substandard or falsified antimicrobials remains a concern.⁷

7. Thirty-seven (79%) Member States are registered with the WHO Global AMR/Use Surveillance System (GLASS). However, the representativeness of data on AMR rates remains a challenge.

8. For SDG indicators monitored by GLASS, the fifth GLASS report⁸ indicated that for bloodstream infections, resistance to third-generation cephalosporins in *Escherichia coli* and methicillin resistance in *Staphylococcus aureus* were high in some reporting Member States, representing between 40% and 50% in Malawi, Mauritius and South Africa.

9. In the Region, wide gaps exist in the core elements of optimizing antimicrobial drug use, with only eight out of 31⁹ (25.8%) Member States having in place a national antimicrobial stewardship (AMS) implementation policy. Moreover, 19¹⁰ (41%) Member States have adopted the WHO Access, Watch, Reserve (AWaRe) classification of antibiotics in their national essential medicines lists (EML),¹¹ which is vital for ensuring access and reducing AMR.

10. For IPC and WASH, there is a lack of comprehensive data on health care-associated infections (HAIs) in Africa. However, WHO estimates that one in 10 deaths among patients is caused by HAIs. In addition, the 2021 Review of the Global action plan documented that Africa had the lowest mean implementation score of the AMR indicators across the Global action plan objectives.¹²

Justification

11. Forty-five (96%) Member States have NAPs on AMR, with 33 (76%) endorsed by national authorities. However, implementation of NAPs is hampered by inadequate investment and human resource capacity, weak linkages between the NAP and the national action plan for health security (NAPHS) and the national health strategy and plan (NHSP), and lack of a coherent context-based regional strategy which will address NAP implementation challenges by securing Member States' commitment.

12. The 2022 Quadripartite Tracking AMR Country Self-assessment Survey (TrACSS) identified weak and non-functional "One Health" governance and coordination platforms as a major impediment to effective implementation with only 15¹³ (32%) Member States having functional multisectoral technical working groups on AMR.

⁷ Godman, B. et al. (2022). Tackling antimicrobial resistance across sub-Saharan Africa: Current challenges and implications for the future. *Expert Opinion on Drug Safety*, 21(8), 1089-1111.

⁸ Global Antimicrobial Resistance and Use Surveillance System (GLASS). (<https://www.who.int/initiatives/glass>, accessed 3 February 2023)

⁹ Benin, Ethiopia, Guinea, Liberia, Nigeria, Senegal, South Africa, United Republic of Tanzania

¹⁰ Burkina Faso, Congo, Democratic Republic of the Congo, Gabon, Guinea, Lesotho, Liberia, Madagascar, Malawi, Namibia, Sao Tome and Principe, Senegal, Seychelles, South Sudan, United Republic of Tanzania, Togo, Uganda, Zambia, Zimbabwe

¹¹ Fuller WL, Aboderin AO, Yahaya A, Adeyemo AT, Gahimbare L, Kapona O, et al: Gaps in the implementation of national core elements for sustainable antimicrobial use in the WHO-African region (<https://www.frontiersin.org/articles/10.3389/frabi.2022.1047565/full>, accessed 3 February 2023)

¹² Comprehensive Review of the WHO Global Action Plan on Antimicrobial Resistance - Volume 1: Report (<https://www.who.int/publications/m/item/comprehensive-review-of-the-who-global-action-plan-on-antimicrobial-resistance>, accessed 3 February 2023)

¹³ Cabo Verde, Côte d'Ivoire, Democratic Republic of the Congo, Eswatini, Ethiopia, Ghana, Kenya, Liberia, Malawi, Mali, Nigeria, Senegal, Sierra Leone, United Republic of Tanzania, Zimbabwe.

13. An AMR strategy offers opportunities to accelerate implementation and monitoring of NAPs on AMR, leveraging COVID-19 pandemic investment with enhanced IPC and WASH measures and genomic laboratory capacity for AMR surveillance. The improved laboratory capacity also allows for the implementation of the WHO Regional framework for UHC and other regional and global health agendas, including joint activities between the Quadripartite organizations (FAO, UNEP, WHO, WOA) and other stakeholders.

14. While some progress has been made, the Region still lags behind in implementing the objectives of the Global action plan.¹⁴¹⁵ There is need for a regional strategy to strengthen national governance to prioritize the AMR agenda, national surveillance systems, education and awareness, appropriate antimicrobial use in patients, and IPC and WASH in health facilities and communities. It will further expedite the implementation and monitoring of NAPs on AMR by supporting interventions that could help eliminate bottlenecks, reduce silos, and avoid duplication, all of which are currently hampering progress towards curbing AMR in the Region.

THE REGIONAL STRATEGY

Aim, objectives, and targets

15. **Aim:** To reduce morbidity, mortality, disability, and socioeconomic disruptions due to antimicrobial resistance through the sustainable implementation of national action plans on antimicrobial resistance in the WHO African Region.

16. **The objectives are:**

- (a) to strengthen multisectoral coordination and governance in addressing AMR threats to human, animal, and environmental health at national and subnational levels through integrated multisectoral approaches to foster the implementation of national action plans on AMR;
- (b) to improve awareness and understanding of AMR through effective communication, education and training targeting priority stakeholders across sectors;
- (c) to enhance knowledge and evidence on AMR rates and antimicrobial consumption through improved surveillance of AMR and antimicrobial use, health care-associated infections, and laboratory diagnostic capacity;
- (d) to optimize the use of antimicrobials in humans through the reinforcement of national regulations and laws and the implementation of antimicrobial stewardship policies and guidelines in health care facilities to improve patient outcomes.

Targets:

17. The major targets for 2030 are defined in line with the objectives of the strategy. The baselines are detailed in the Annex.

¹⁴ Comprehensive Review of the WHO Global Action Plan on Antimicrobial Resistance - Volume 1: Report (<https://www.who.int/publications/m/item/comprehensive-review-of-the-who-global-action-plan-on-antimicrobial-resistance>, accessed 3 February 2023)

¹⁵ Comprehensive review of the WHO Global Action Plan on Antimicrobial Resistance: Management Response – March 2022. (<https://www.who.int/publications/m/item/comprehensive-review-of-the-who-global-action-plan-on-antimicrobial-resistance---management-response---march-2022>, accessed 3 February 2023.)

Targets: By 2030:

- (a) All Member States have functional One Health AMR governance mechanisms which include defined roles and responsibilities across sectors and established accountability arrangements, thus achieving priority AMR interventions;
- (b) All Member States have in-country monitoring and evaluation systems to track and report on the progress of NAPs;
- (c) All Member States are conducting nationwide AMR awareness campaigns involving different sectors;
- (d) All Member States have enrolled in GLASS, report, and use data for decision-making;
- (e) All Member States are implementing interventions to optimize the responsible use of antimicrobials in health care facilities for improved patient outcomes.

Guiding principles

18. **Whole-of-society engagement guided by a One Health approach:** All sectors and disciplines including civil society and the private sector should be engaged in the implementation of the Regional AMR strategy.

19. **Member State ownership and leadership:** Addressing AMR is the primary responsibility of governments. Member States should be politically committed and accountable at all levels of the health system, raise domestic financing and promote other investments related to AMR.

20. **Access:** Access should be provided to all populations, when needed, while curtailing inappropriate use of antimicrobials.

21. **Social determinants of health, including gender equity and human rights perspectives:** Stakeholders understand how inequities based on gender, equity and disability contribute to and is impacted by AMR, including for key vulnerable populations.

Priority interventions

22. **Strengthening multisectoral “One Health” collaboration and coordination on AMR:** The establishment of mechanisms and platforms aimed at strengthening multisectoral coordination is essential. As part of this effort, establishing effective regional and national multisectoral coordination and partnership on AMR with the involvement of stakeholders from the human, animal and environmental sectors remains a priority. In addition, there is a need to finalize, update, cost and endorse NAPs under the “One Health” approach; put in place smooth implementation mechanisms and ensure that progress on NAPs is regularly monitored.

23. **Raising awareness and education on AMR:** Intensify awareness of AMR, ensure that evidence-based nationwide communication programmes and campaigns are conducted, and promote behavioural change across all sectors including consumers. Build the capacity of AMR professionals from various sectors; include curricula on the use of antimicrobials and resistance in secondary and tertiary education to promote understanding, awareness and behaviour change; and engage in collaboration with professional bodies for continuous education on AMR.

24. **Building a knowledge and evidence base on AMR:** Member States generate information on incidence and prevalence across pathogens and geographical patterns related to AMR and use it to guide treatment of patients; inform local, national, and regional actions; and monitor the effectiveness of interventions.

25. **Reducing the incidence of infection:** Improve IPC and WASH measures through supportive supervision and assessment, implementation of IPC and WASH core components including HAI surveillance, guidelines, health work force training, waste management, availability of materials including personal protective equipment and immunization to limit the development and spread of antimicrobial-resistant infections and multidrug-resistant bacteria in health facilities and communities.

26. **Optimizing the use of antimicrobials:** Enforce antimicrobial regulations and laws including those related to quality control, use and distribution of antimicrobial medicines to address the emergence of substandard and falsified antimicrobials and inappropriate use of antimicrobials in the Region. Encourage investment in research and development. National procedures and effective, rapid, low-cost diagnostic tools are needed for guiding optimal use of antimicrobials in human and animal medicine, as well as in the agriculture sector. Evidence-based prescribing and dispensing should be the standard of care.

27. **Promoting sustainable investment for NAPs on AMR:** Actions and investments to tackle AMR are supported by clear cost-benefit analyses as well as the development of resource mobilization capacity. Member States should integrate AMR into existing and upcoming workstreams such as emergency preparedness and response, UHC, communicable and noncommunicable diseases that can absorb AMR-sensitive activities in addition to having a dedicated budget line for AMR. Member States should build capacity to develop and use new and innovative tools to improve prevention, detection, and management of AMR infections.

Roles and responsibilities

28. **Member states should:**

- (a) commit political will and provide political and technical leadership for dissemination and implementation of this strategy in collaboration with various stakeholders and partners;
- (b) ensure sufficient resources for NAP implementation as an integral part of the national health strategy and plan (NHSP);
- (c) conduct advocacy to recognize AMR as a national “One Health” priority, with domestic funding for NAPs, monitoring and use of data for action;
- (d) promote the use of existing platforms and tools developed with support from WHO and partners to build technical capacity and implement NAPs;
- (e) enact regulations and laws for appropriate use and disposal of antimicrobials.

29. **WHO and partners should:**

- (a) support Member States to prioritize, finalize, update, cost, implement and monitor NAPs on AMR;
- (b) mobilize partners and all actors to support the implementation of the strategy and coordinate support to Member States for assessment and implementation of investment needs, consistent with the principle of sustainability;
- (c) support the development of an adequate workforce in terms of quality and numbers, and maintain multidisciplinary rosters of AMR experts to build the capacity of Member States;
- (d) collaborate with research institutions to produce, disseminate and support effective use of evidence on AMR and guide investment.
- (e) support the development, establishment and functionality of technical and professional networks, including strong links with other networks and platforms related to health systems and services to curb AMR.

Resource implications

30. In the WHO African Region, the 2021 WHO tool for costing and budgeting NAPs on AMR is being used by stakeholders to support prioritization of interventions and map existing budgets to avoid funding duplication and enhance advocacy and resource mobilization. This strategy provides an opportunity for resource mobilization through existing and new funding partners.

Monitoring and evaluation

31. A monitoring and evaluation framework should be part of NAPs and be regularly assessed by internal and external bodies. While building the capacity of Member States on monitoring and evaluation of national AMR programmes, WHO will continue to coordinate with partners for the annual Tracking AMR Country Self-Assessment Survey (TrACSS) on the implementation of NAPs and support the implementation of the Quadripartite Framework for Monitoring and Evaluation of AMR NAPs. WHO will also continue to monitor GLASS indicators for the implementation of national surveillance systems for AMR use and the SDGs.

32. A progress report on the implementation of the regional strategy will be presented to the WHO Regional Committee for Africa every two years starting in 2025.

CONCLUSION

33. The global burden of AMR is significant, particularly in Africa, and it is expected to increase, unless a coherent and all-encompassing strategy that sustains the prevention, detection and response to AMR through effective implementation of NAPs on AMR is operationalized.

34. Addressing AMR is aligned with WHO's broad mandate, which includes advocating for universal health care, monitoring public health risks, coordinating responses to health emergencies and promoting human health and well-being. Addressing AMR is also aligned with the main objective of the WHO Constitution which aims to ensure “the attainment by all peoples of the highest possible level of health”.

35. Thus, by adopting and implementing this strategy, Member States would have made important progress towards preventing global health security threats, strengthening their health systems and attaining the SDGs.

36. The Regional Committee is invited to consider and adopt the proposed strategy.

Annex: Detailed baseline and targets

Objective	Indicator	Baseline	Target
		2022	2030
		(%)	(%)
To strengthen multisectoral coordination and governance in addressing AMR threats to human, animal, and environmental health at national and subnational levels through integrated multisectoral approaches to foster the implementation of AMR national action plans.	Percentage of Member States that have functional “One Health” AMR governance mechanisms which include defined roles and responsibilities across sectors and established accountability arrangements, thus achieving priority AMR interventions.	32	100
	Percentage of Member States that have in-country monitoring and evaluation systems to track and report on the progress of NAPs.	57	100
To improve awareness and understanding of AMR through effective communication, education and training targeting priority stakeholders across sectors.	Percentage of Member States that are conducting nationwide AMR awareness campaigns involving different sectors.	17	100
To enhance knowledge and evidence on AMR rates and antimicrobial consumption through improved surveillance of AMR and antimicrobial use, health care-associated infections, and laboratory diagnostic capacity.	Percentage of Member States that have enrolled in GLASS, report, and use data for decision-making.	34	100
To optimize the use of antimicrobials in humans through reinforcement of national regulations and laws, implementations of antimicrobial stewardship policies and guidelines at health care facilities to improve patient outcomes.	Percentage of Member States that are implementing interventions to optimize responsible use of antimicrobials in health care facilities for improved patient outcomes.	43	100