

# USAID MEDICINES, TECHNOLOGIES, AND PHARMACEUTICAL SERVICES (MTaPS) PROGRAM

*Improved Access. Improved Services. Better Health Outcomes.*



Ministry of Health, Ministry of Agriculture, and Ethiopian Environment Protection Agency officials launch the revised AMR strategic plan during World Antimicrobial Awareness Week, November 2021. (Photo credit: Workineh Getahun/MTaPS)

## Strengthening Multisectoral Coordination for Combating Antimicrobial Resistance in Ethiopia

Technical Brief | May 2023 | Ethiopia

### Critical drivers of sustainable multisectoral coordination on AMR

#### Background

Over the past decades, antimicrobials have saved millions of lives, substantially reduced the burden of diseases, improved people's quality of life, and helped increase life expectancy. However, growing antimicrobial resistance (AMR), due in large part to misuse and overuse of antibiotics, is leading to increased fatalities from infectious diseases. The situation is especially dire in low- and middle-income countries (LMICs), which often lack sufficient systems to prevent and contain AMR.

The US Agency for International Development (USAID) is working to address the threat of AMR in LMICs through the Global Health Security Agenda (GHSA), an international effort that brings together more than 70 countries and nongovernmental partners to collectively achieve the vision of a world safe and secure from

global health threats posed by infectious diseases. The USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) program (2018–2024) is a key implementer in USAID's support for the GHSA vision.

In Ethiopia, MTaPS began work in 2018, was temporarily paused in December 2020, and restarted activities in October 2021. MTaPS' support in Ethiopia has focused on supporting the country in implementing its second National Strategic Framework for the Prevention and Containment of AMR (2015-2020), developing/updating a National Strategy and Action Plan for AMR (NAP-AMR), establishing an AMR prevention and containment coordinating unit in the Ministry of Health (MOH), strengthening the National AMR Advisory Committee (NAMRAC), and building capacity for infection prevention and control (IPC) and antimicrobial stewardship (AMS).

## Problem Statement

AMR is a major threat to the Ethiopian health system and is associated with significantly increased mortality in the country. A 2019 study by Muhie revealed that, in Ethiopia, almost 60% of bacterial isolates are multidrug-resistant and 50% of antibiotics are inappropriately used.<sup>1</sup>

Although the country's National Strategic Framework for Prevention and Containment of AMR (2015–2020) aligned with the World Health Organization's (WHO) Global Action Plan on AMR, it focused primarily on human health—to the exclusion of the animal, plant, and environmental sectors—and lacked a robust operational plan, costing, and required resources. In a 2016 baseline assessment using the WHO Joint External Evaluation (JEE) tool (version 1), Ethiopia demonstrated limited capacity (level 2 of 5) for both IPC and AMS. The assessment report called for Ethiopia to ensure intersectoral collaboration and continuous stakeholder communication between the animal and human health and environment sectors.

## Technical Approach

MTaPS supports Ethiopia in following a One Health approach, which promotes multisectoral collaboration (MSC) across human health, animal health, environment, agriculture, education, civil society, and other sectors to strengthen MSC to prevent and contain AMR. MTaPS' activities were guided by the JEE 2.0 tool (2018) and the WHO Benchmarks for International Health Regulations Capacities (2019).<sup>2</sup> These tools are designed to help countries identify and implement recommended actions to make progress in key GHSA technical areas, including MSC for AMR. Like the JEE, the WHO benchmarks categorize country capacity on MSC, IPC, and AMS on a scale ranging from 1 (no capacity) to 5 (sustainable capacity).<sup>3</sup>

Aligned with WHO's benchmarks, MTaPS supported the country in building their capacity for MSC by strengthening the governance of MSC-AMR bodies, facilitating NAP

implementation by MSC-AMR bodies, and improving institutionalization and sustainability of MSC actions.

## Stakeholder Engagement

To help Ethiopia improve its AMR response through MSC, MTaPS collaborated with MOH through the Pharmaceutical and Medical Equipment Directorate (PMED) as well as with regional health bureaus, NAMRAC, Ministry of Agriculture (MOA), Ethiopian Environment Protection Authority (EEPA), Ethiopian Public Health Institute, Ethiopian Food, and Drug Authority, Ethiopian Health Insurance Agency, civil society organizations (CSOs), USAID/GHSA partners, World Health Organization, World Organization of Animal Health, and Food and Agriculture Organization of the United Nations.

## Interventions

To ensure the presence of a well-functioning platform for MSC on AMR, MTaPS has supported Ethiopia in strengthening governance and building capacity for effective MSC of national and sub-national stakeholders on AMR.



State Minister of Health, Dr. Derege Duguma, gives remarks at the PMED annual review and consultative meetings in Adama, Ethiopia, June 2022. (Photo credit: MTaPS)

<sup>1</sup> Muhie OA. Antibiotic Use and Resistance Pattern in Ethiopia: Systematic Review and Meta-Analysis. *Int J Microbiol.* 2019; article 2489063. <https://www.hindawi.com/journals/ijmicro/2019/2489063/>

<sup>2</sup> IHRs (2005), an instrument of international law that is legally binding on 196 countries, establish rights and obligations for

countries related to reporting, surveillance, and response to public health events, with the aim of protecting public health globally. IHRs cover 19 technical areas, including AMR.

<sup>3</sup> The benchmark activities and levels for MSC, IPC, and AMS are detailed at <https://ihrbenchmark.who.int/document/3-antimicrobial-resistance>; see benchmarks 3.1, 3.4, and 3.5.

### Governance for MSC Strengthened

In collaboration with partners, MTaPS supported MOH and national AMR stakeholders in developing, implementing, and monitoring the progress of the NAP-AMR and strengthening MSC institutions on AMR, as follows:

- Supported MOH, MOA, and EEPA in leading a consultative process to develop Ethiopia’s third NAP-AMR, known as the National One Health AMR Prevention and Containment Strategic Plan (2021–2025). The new NAP-AMR aligns with WHO’s Global Action Plan on Antimicrobial Resistance and Ethiopia’s growth and transformation plans for health, agriculture, and the environment sectors; defines roles and responsibilities of all implementing partners; identifies resources associated with implementation; and includes a monitoring and evaluation framework to monitor progress.
- Negotiated and advocated for MOH to take national leadership on AMR and seconded an AMR expert to MOH to support this effort. This led to the creation of a national secretariat at MOH under PMED. PMED is responsible for coordinating activities related to the prevention and containment of AMR and serves as secretariat/point of contact for NAMRAC.
- Finalized the structure for national AMR governance and coordination, comprising three tiers: the National Inter-Ministerial Committee at the highest level, NAMRAC, and six multisectoral technical

*"AMR is a global as well as a national health threat that requires concerted effort amongst stakeholders from the human, animal, plant, and environment sectors.*

*Hence, I kindly prompt all AMR stakeholders to work on their part and deploy resources for the implementation of both the strategic plan and the MPTF [Multi-Partner Trust Fund] project."*

—Dr. Hillina Tadesse, Director General of Medical Services, General Directorate and Chairperson of NAMRAC

working groups (TWGs), including those for IPC and AMS.

- Supported reorganization of NAMRAC, a multisectoral advisory committee established by MOH, using the One Health approach. NAMRAC’s role is to guide national AMR stakeholders and partners and oversee overall AMR prevention and containment activities. To strengthen NAMRAC, MTaPS took on the role of NAMRAC co-secretary and helped NAMRAC structure itself to reflect the One Health approach. MTaPS also supported NAMRAC and its IPC and AMS TWGs in updating their terms of reference and holding regular quarterly meetings. The revised NAMRAC includes more than 25 representatives from MOH, MOA, and EEPA directorates, institutes, agencies (research, regulatory, etc.), professional



Participants from the awareness-raising event for WAAW, November 24, 2022. (Photo credit: Joney Woldegebreal, MSH)



associations, partners, and international organizations.

- Provided technical assistance to help PMED and NAMRAC raise awareness and understanding of the revised NAP-AMR for implementation at various levels. This included (a) prioritizing key activities from the NAP-AMR and developing sector-specific/regional yearly action plans for the human, animal, and environmental sectors; (b) leading NAP-AMR workshops to familiarize and engage stakeholders in implementing action plans; and (c) building the capacity of the regional AMR advisory committees (regional AMRACs).

### *Capacity for MSC on AMR Increased*

MTaPS supported stakeholders in raising awareness and strengthening education and training on AMR through several key activities:

- Collaborated with partners to raise AMR awareness through events, including the 10th annual AMR Day, under the slogan “Coordinated Efforts toward AMS” (in collaboration with the Ethiopian Pharmaceutical Association [EPA]); colorful yearly WAAW celebrations (since 2019) under the overarching slogan “Handle Antimicrobials with Care” (in collaboration with MOH, MOA, and EEPA); and a mass mobilization forum (as part of WAAW events and targeted training on AMR) to increase AMR awareness of CSOs and to encourage them to disseminate this information to their members, families, and society.
- Collaborated with MOH and national AMR MSC to share NAP-AMR operational plans with national, sub-national, and local IPC committees, AMS groups, drugs and therapeutics committees, and grassroots organizations.
- Conducted an advocacy and sensitization workshop on AMS for high-level officials and experts from EEPA; trained agriculture professionals on AMR; and supported EPA in holding two annual scientific conferences, where AMR was covered as part of the continuing professional development program.
- Supported country AMR partners in carrying out key reviews and assessments, including the fourth and sixth Tripartite AMR Country Self-Assessment Survey on monitoring the NAP-AMR and the PMED annual performance review with stakeholder involvement.

- Supported MOH in finalizing the sector-specific action plan for FY 2022/23. Officially launched at the WAAW 2022 event, the plan aims to cascade the implementation of the NAP-AMR to MOH, MOA, and EEPA. The plan provides a detailed list of activities, drawn from the NAP-AMR, to be implemented by the animal health, human health, agriculture, and environmental sectors.
- Supported the finalization of a concept note to the United Nations Development Program (UNDP) Antimicrobial Resistance Multi-Partner Trust Fund (MPTF), which resulted in a \$1 million award for AMR work in the country.

## Results and Achievements

Ethiopia’s MSC governance structures are now in place and functional. The AMR secretariat, the new AMR unit within MOH/PMED, is operational, providing national leadership and facilitating coordination of the NAP-AMR implementation. NAMRAC, along with its TWGs, is providing oversight, monitoring progress, and supporting the implementation of the NAP-AMR. The AMR secretariat is facilitating the revision of the second NAP-AMR and has brought together MOH, MOA, and EEPA leadership to endorse the third national One Health AMR strategic plan and sign a memorandum of understanding on AMR.

The revision of the NAP-AMR was a fully multisectoral process, which fostered an exchange of knowledge and experience and built the MSC capacity of more than 60 participating experts from across the human health, agriculture, and environment sectors; international and partner organizations; academia; and professional associations. This collaborative process paved the way for joint ownership and sustainability of the plan.

As a result of the advocacy and sensitization workshop on AMR for the environmental sector (which aimed to raise the sector’s awareness of its role in MSC), officials in the sector have gained increased awareness of the issue of antimicrobial residues and AMR contamination in the environment, which is vital to drive changes in stakeholder practices. From the workshop, sector representatives recognized that, although it is responsible and accountable for monitoring the effect of AMR on the environment, activities conducted earlier were not sufficient to address AMR. The environmental sector has since incorporated AMR-related

interventions, including continuous monitoring, audit, and follow-up of facilities, into the environmental sector's routine plans and activities. The workshop culminated in the establishment of a 10-member task force, representing 9 EEPA directorates to oversee the sector's AMR prevention and containment activities.

The \$1 million that Ethiopia secured from the United Nations MPTF has provided each sector (human, agriculture, and environment) with more than \$300,000 to conduct various capacity-building interventions and scale-up of AMR activities. These have included activities within each of the three sectors, as well as many MSC activities, including the organization of a One Health AMR Surveillance and Research for Action Conference in November 2021; development and field testing of an innovative tool for capturing and compiling AMR data; provision of practical and theoretical capacity-development training on antimicrobial sensitivity testing and AMR surveillance for 40 laboratories (primarily in human health, but also including six animal health labs); establishment by the MOA of a One Health multidisciplinary team to develop technical guidelines for safe, quality animal source food production and AMR containment; development of One Health communication, stakeholder analysis, and engagement strategy and accompanying behavior change materials; and organization of an AMR-MPTF monitoring and evaluation training for the AMR MSC committee.

## Lessons Learned

- **Involve stakeholders across levels and sectors in developing, implementing, and monitoring the MSC strategic action plan for AMR.** Working through the leadership of high-level government partners and involving key stakeholders at all levels in reviews, consultations, validation, and the approval process contributes to developing an inclusive plan, which reflects the needs and challenges across sectors and fosters stakeholder ownership.
- **Analyze existing human and financial resources that are available to stakeholders/partners.** Mapping partner resources and engaging partners in planning help identify gaps and determine available resources to ensure that strategic plans and work plans are

realistic and can be implemented and complement each other.

- **Advocate to ensure continued political commitment and ownership.** Advocacy through parliamentary meetings, for example, mobilizes support for the program and advocates for increased resource allocation; advocacy with stakeholders drives a sense of ownership and collaboration. As a result of advocacy efforts, an AMR team was established in MOA; partners worked together to develop a strong concept note that resulted in securing significant resources from the Antimicrobial MPTF; and AMR was included in additional policy documents, including the Ethiopian Hospital Services Transformation Guidelines and the Ethiopia Health Sector Transformation Plan II.
- **Engage multisectoral stakeholders and partners in the MSC advisory committee (NAMRAC).** Membership on the committee obligates the sector to report on AMR work carried out in the sector. This drives a sense of ownership, commitment, and active engagement.
- **Establish clear and defined reporting systems and joint reviews for AMR TWGs** and integrate them into routine AMR surveillance to ensure that TWGs are engaged and heard by the MSC advisory committee (NAMRAC) and that TWG recommendations shape the country's strategic directions and implementation. The AMR surveillance and research TWG, IPC TWG, and the AMS committee are operating with clear and defined reporting systems, but three more TWGs remain that need to become active and operational.
- **Sensitize management personnel in partner/stakeholder structures** to understand the importance of AMR activities and committees and their role in them. This sets the tone for the organization's approach to AMR, builds ownership, and contributes to the partner making human resources and budget available for AMR activities.
- **Build in-house capacity for managing MSC effectively.** Although the use of consultants can help key players, such as MOH and NAMRAC, with specific tasks, such as revising the strategic plan, hiring permanent staff contributes to better results and build long-term institutional memory and sustainability.

## Pathway to Sustainability

By building MSC coordination structures inside of existing government agencies and engaging MSC partners at all levels in developing and implementing the NAP-AMR and associated work plans, MTaPS has achieved country ownership and institutionalization of the response to AMR. When the MTaPS program closed for a year in 2020-2021, the Government of Ethiopia demonstrated its ability to mobilize stakeholders and resources to finalize and officially launch the strategic plan and began the process of cascading the NAP across sectors and facilities.

Since resuming activities, MTaPS has focused its support on enhancing engagement and understanding stakeholders, strengthening monitoring and evaluation, and developing performance review platforms and processes on implementing the AMR strategic plan at national, regional, and sectoral levels while continuing to strengthen the AMS, IPC, and research and surveillance TWGs. As MTaPS prepares to close out its activities after having contributed to substantial progress in efforts to contain AMR, it is increasingly passing the responsibility for capacity building in AMR to country partners and is supporting MOH and national stakeholders in exploring options for sustained government financing of AMR-related interventions.

## Conclusions

AMR containment requires strong coordination within and between sectors. With support from the USAID-supported MTaPS program and other partners, Ethiopia has made notable progress in MSC to contain AMR and has a structure in place and support from multiple sectors to take this work forward. The sustainability of MSC activities will be driven by continued institutional capacity development, advocacy, and collaboration with government stakeholders. To continue along the path to AMR containment, the tripartite National Inter-Ministerial Committee and the remaining three multisectoral TWGs will need to step up to carry out their assigned roles. Building on the strong base and lessons learned from work at the national level, moving forward, NAMRAC and partners will be well-positioned to expand their focus to strengthen MSC at the sub-national level.

## References

- AMR MPTF annual report 2021. Geneva: WHO, FAO, UNEP, OIE; 2022. Licence: CC BY-NC-SA 3.0 IGO <https://www.woah.org/app/uploads/2022/06/amr-mptf-annual-report-2021-final.pdf>, page 33-35
- AMR MPTF annual report 2022. Geneva: WHO, FAO, UNEP, OIE; 2022. Licence: CC BY-NC-SA 3.0 IGO. [https://mptf.undp.org/sites/default/files/documents/2023-05/2022\\_amr\\_mptf\\_narrative\\_report.pdf](https://mptf.undp.org/sites/default/files/documents/2023-05/2022_amr_mptf_narrative_report.pdf) pages 41-47
- Fentie AM, et al. Multicentre point-prevalence survey of antibiotic use and HAIs in Ethiopian hospitals. *BMJ Open* 2022;12:e054541. doi: 10.1136/bmjopen-2021-054541
- FMHACA. Strategy for prevention and containment of AMR. 2015. <http://www.fmhaca.gov.et/wp-content/uploads/2019/03/Strategy-for-the-Prevention-and-Containment-of-AMR-in-Ethiopia-Oct-2015.pdf>
- GOE. 2021. AMR Prevention and Containment Strategic Plan: One Health Approach, 3rd ed, 2021-2025. <https://www.who.int/publications/m/item/Ethiopia-third-one-health-strategic-plan-on-antimicrobial-resistance-prevention-and-containment-2021-2025>
- Joshi MP, et al. Strengthening multisectoral coordination on antimicrobial resistance: A landscape analysis of efforts in 11 countries. *J Pharm Policy Pract.* 2021. 14, 27. <https://doi.org/10.1186/s40545-021-00309-8>
- Moges F, et al. Growing challenges of antibacterial drug resistance in Ethiopia. *J Glob Antimicrob Resist.* 2014;2: 148–154. <https://pubmed.ncbi.nlm.nih.gov/27873721/>
- MOH, Ethiopia, Health Sector Transformation Plan II, 2020/21-2024/25, February 2021, Addis Ababa, Ethiopia. <http://repository.iifphc.org/handle/123456789/1414>
- MSH, MTaPS. July 13, 2022. “Ethiopian MOH Addresses AMR Agenda”. <https://www.mtapsprogram.org/news-blog/ethiopian-ministry-of-health-addresses-amr-agenda/>
- MSH, MTaPS. June 9, 2022. “MTaPS Supports Ethiopia National Antimicrobial Resistance Advisory Committee Meeting”. <https://www.mtapsprogram.org/news-blog/mtaps-supports-ethiopia-national-antimicrobial-resistance-advisory-committee-meeting/>
- MSH, MTaPS Program. August 4, 2022. “MTaPS Teams at the ReAct and South Centre AMR Conference 2022”

<https://www.mtapsprogram.org/news-blog/mtaps-teams-at-the-react-and-south-centre-amr-conference-2022/>

Muhie OA. Antibiotic Use and Resistance Pattern in Ethiopia: Systematic Review and Meta-Analysis. Int J Microbiol. 2019: article ID 2489063. <https://www.hindawi.com/journals/ijmicro/2019/2489063/>

Reta A, et al. Bacterial Infections and Their Antibiotic Resistance Pattern in Ethiopia: A Systematic Review. Adv Prev Med. 2019: Article ID 4380309. <https://www.hindawi.com/journals/apm/2019/4380309/>

Seboxa T, et al. High mortality from blood stream infection in Addis Ababa, Ethiopia, is due to AMR. 2015. <https://doi.org/10.1371/journal.pone.0144944>

Tirfe M, et al. (2023) A three years antimicrobials consumption in Ethiopia from 2017 to 2019: A cross-sectional study. PLoS ONE 18(4): e0284038. <https://doi.org/10.1371/journal.pone.0284038>

United Nations Development Program. AMR MPTF: Countering antimicrobial resistance with a One Health approach. <https://mptf.undp.org/factsheet/fund/AMR00>

WHO. Joint external evaluation of IHR core capacities of the Federal Democratic Republic of Ethiopia. 2016. <https://apps.who.int/iris/handle/10665/254276>

WHO. Sample TOR for a national multisectoral coordinating group, for a national focal point, and for a TWG. [https://cdn.who.int/media/docs/default-source/antimicrobial-resistance/amr-spc-npm/nap-support-tools/amr-multisectoral-coordination-tors/word/sample-tors-for-multisectoral-coordination-word-\(english\).docx?sfvrsn=1679a371\\_9](https://cdn.who.int/media/docs/default-source/antimicrobial-resistance/amr-spc-npm/nap-support-tools/amr-multisectoral-coordination-tors/word/sample-tors-for-multisectoral-coordination-word-(english).docx?sfvrsn=1679a371_9)



**USAID**  
FROM THE AMERICAN PEOPLE

*This document is made possible by the generous support of the American people through the US Agency for International Development (USAID) contract no. 7200AA18C00074. The contents are the responsibility of Management Sciences for Health and do not necessarily reflect the views of USAID or the United States Government.*

## Acknowledgement

Thank you to the staff from MTaPS Ethiopia for their support in the development of this technical brief.

---

## Authors

This publication was written by Workineh Getahun and Hailu Tadeg.

For more information, please contact [memory@msh.org](mailto:memory@msh.org)

---

## About USAID MTaPS:

The USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program (2018–2024) enables low- and middle-income countries to strengthen their pharmaceutical systems, which is pivotal to better health outcomes and higher-performing health systems. The program is implemented by a consortium of global and local partners, led by Management Sciences for Health (MSH), a global health nonprofit.

---