

USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program

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



Dr. Dominic Mundrugo-Ogo Lali (right) visits a veterinary medicine shop as part of the consultative process for developing the essential veterinary medicine list. Photo credit: Dr. Reuben Kiggundu

MTaPS COUNTRY SUMMARY REPORT UGANDA (2018–2023)

About USAID MTaPS

The US Agency for International Development (USAID) Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program (2018–2024) enables low and middle-income countries to strengthen their pharmaceutical systems, which are 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.

Learn more at
<https://www.mtapsprogram.org/>

INTRODUCTION

The USAID MTaPS program enables low and middle-income countries to strengthen their pharmaceutical systems, which are critical for ensuring access to and appropriate use of safe, effective, quality-assured, affordable medicines, vaccines, health technologies and products, and related pharmaceutical services to improve health. MTaPS' objectives are to: (1) Strengthen pharmaceutical-sector governance; (2) Increase institutional and human resource capacity for pharmaceutical management and services, including regulation of medical products; (3) Advance availability and use of pharmaceutical information for decision making and the global learning agenda; (4) Optimize pharmaceutical-sector financing, including resource allocation and use; (5) Improve pharmaceutical services, including product availability and patient-centered care, to achieve desired health outcomes.

MTaPS employs a pharmaceutical system–strengthening (PSS) approach to identify and implement strategies and actions that achieve coordinated and sustainable improvements of a pharmaceutical system to make it more responsive and resilient for achieving better health outcomes. The MTaPS approach emphasizes locally led development, country ownership, and self-reliance to support countries on the pathway to sustainability. At the country level, the MTaPS approach is adapted to the specific context, national health system–strengthening strategies, and USAID's vision and support.



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FROM THE AMERICAN PEOPLE



CHALLENGES

- Need for MSC between animal health and human health sectors
- Lack of key policy instruments to guide MSC, IPC, and AMS
- Limited capacity for IPC and AMS in animal sector
- Suboptimal IPC capacity at national and health facility levels
- Limited capacity at hospitals to support AMS
- Limited public awareness of AMR burden on the animal health sector

>30%



of surgical-site infections are from resistant microbes²



PARTNERS

- Infectious Diseases Institute (IDI), Makerere University
- Makerere University School of Public Health (MaKSPH)
- Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF) Provincial health authorities
- Ministry of Health (MOH)
- National AMR Sub-Committee (NAMRSC)
- National Drug Authority (NDA)
- Pharmaceutical Society of Uganda
- Uganda Catholic Medical Bureau
- Uganda Medical and Dental Practitioners Council
- Uganda Medical Association
- Uganda One Health Platform (OHP)
- Uganda Protestant Medical Bureau

COUNTRY CONTEXT

Infectious diseases are a leading cause of morbidity and mortality in Uganda and are compounded by emerging and re-emerging outbreaks, including Ebola virus disease (EVD), Marburg hemorrhagic fever, measles, yellow fever, anthrax, COVID-19, and cholera. Antibiotics are widely available with informal and unprescribed usage on the rise, leading toward a growing trend of antimicrobial resistance (AMR) and a decrease in positive treatment outcomes.¹ In 2017, a World Health Organization (WHO)–led Joint External Evaluation (JEE) assessed Uganda’s efforts to address antimicrobial surveillance, and highlighted the lack of coordination between animal and human health sectors, the absence of a national AMR action plan, and suboptimal institutional and human resource capacity for implementation of infection prevention and control (IPC) and antimicrobial stewardship (AMS) activities at the subnational levels (e.g., health facilities and farms). Although Uganda scored a 3 out of 5 (signifying developed capacity) in the 2017 JEE and was implementing the National Antimicrobial Resistance Action Plan (NAP-AMR), gaps still hindered advancement to sustainable capacity for preparedness for AMR. It was therefore important that Uganda strengthen its capacity to respond to these disease threats, by working with global mechanisms such as the Global Health Security Agenda (GHSa) and the Global Action Plan on Antimicrobial Resistance (Global Action Plan) and implementing the WHO Benchmarks for International Health Regulations (IHR) Capacities.

STRATEGIC APPROACH

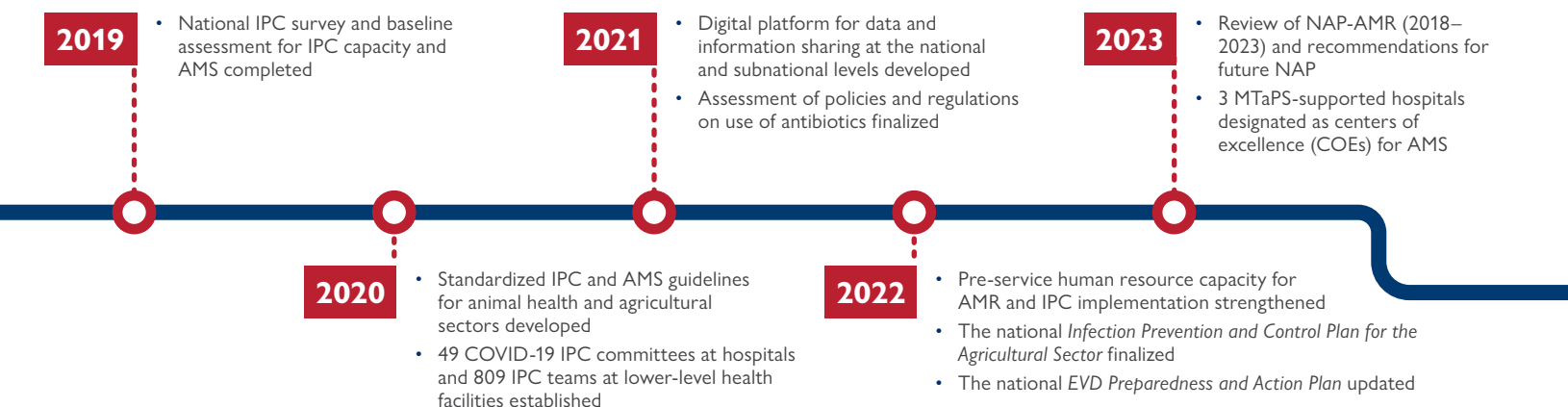
MTaPS supported the Government of Uganda (GOU) ministries, departments, and agencies and its implementing partners to strengthen the country’s GHSa efforts at the national and subnational levels. MTaPS’ support followed a One Health approach, which promotes multisectoral coordination (MSC) across the human, animal, and environmental health sectors and actively engages civil society, education, and other sectors to enhance collaboration and synergy in the fight against AMR. In line with USAID’s mandate, MTaPS’ technical assistance to the GOU in implementing strategic activities in the NAP-AMR and disease outbreak response was based on the guiding principles of GHSa and WHO Benchmarks for IHR Capacities for improving the containment of AMR.

In Uganda, from 2018 to 2023, MTaPS provided technical assistance to strengthen systems and practices for IPC and the optimal use of antimicrobial medicines, including promoting and strengthening AMS and MSC to contain AMR. As part of the COVID-19 response, MTaPS worked with the GOU, local governments and the national COVID-19 task force to support establishment of IPC structures in selected regions through training and distribution of IPC supplies and technical support to first-line responders. Following an EVD outbreak in North Kivu Province, Eastern DRC, MTaPS supported the Ministry of Health (MOH) and regional partners to strengthen IPC and community engagement and to update the national EVD response plan.

ACHIEVEMENTS & RESULTS

MTaPS has successfully delivered its mandate of strengthening Uganda's capacity for AMR through completing key WHO IHR benchmark actions across MSC, IPC, and AMS technical areas. Overall, MTaPS provided support to Uganda to address the following WHO IHR benchmark actions (either fully or partly): 75% of capacity level 2 benchmark actions, 50% of level 3 actions, 50% of level 4 actions, and 20% of level 5 actions for MSC; for IPC, 100% of capacity level 2 benchmark actions, 100% of level 3 actions, 80% of level 4 actions, and 20% of level 5; for AMS, 50% of capacity level 2 benchmark actions, 50% of level 3 actions, 43% of level 4 actions, and 14% of level 5 actions.

Key Achievements



Key Results: Highlights



Effective multisectoral coordination on AMR

- Terms of reference developed for the National Antimicrobial Resistance Sub-Committee (NAMRSC); IPC, AMS, and Public Awareness Training and Education technical working committee members appointed; increased funding and staffing for NAMRSC
- Civil society organizations, private hospitals, and consumers included in AMR governance structures (NAMRSC and technical working committees) and engaged in policy development and implementation (NAP-AMR), IPC strategy for agriculture sector, IPC guidelines for animal sector, and capacity-strengthening activities
- Information, education, and communication (IEC) materials (posters, flyers, fact sheets, key messages, and press releases) developed and disseminated in collaboration with the MAAIF to support advocacy, public awareness, and social mobilization for AMR containment in the agricultural sector
- National digital information and documentation exchange platform established to support data and information sharing at the national and subnational levels by the NAMRSC

IPC policies and practices strengthened

- Functional IPC committees for AMR containment and patient safety established at all MTaPS-supported health facilities and linked to district IPC teams and national IPC committee
- Finalized the national *Infection Prevention and Control Plan for the Agricultural Sector*
- Supported peer-to-peer learning among health care workers by “twinning” health facilities to facilitate learning and exchange and establish communities of practice for IPC
- Provided training, mentorship, and supportive supervision in MTaPS-supported facilities to strengthen human resources for implementing IPC programs



Aggregate IPC component scores increased from **547** in 2019 to **635** in 2023 in 6 MTaPS-supported facilities

Hand hygiene knowledge of health care workers increased from **45%** to **76%**



30% increase in
AMS core component
score pre- and post-
intervention at 13 MTaPS-
supported hospitals



Use of antimicrobial medicines optimized

- Essential Veterinary Medicines List for Uganda 2020 (EVML) developed to guide policy and regulation on importation of essential medicines into the country³
- Guidelines developed and validated on the use of antimicrobials in the animal health sector, covering all leading animal production systems in Uganda (fish, poultry, sheep and goats, cattle, and pigs)
- Framework for reporting data on antimicrobial consumption (AMC) and related software developed for the NDA to report quantities of antibiotics imported into the country for use in both human and animal health sectors
- Continuous Quality Improvement (CQI) program for AMS developed for all 13 MTaPS-supported hospitals
- At least 60% of prescribed antibiotics come from the AWaRe access category in all 13 MTaPS-supported hospitals, in alignment with the WHO recommendation for national-level consumption

3 MTaPS-supported
hospitals designated
as COEs for AMS



COVID-19 IPC Response

- COVID-19 treatment units established at 5 high-volume hospitals
- National COVID-19 IPC training manual developed
- COVID-IPC mentorship program covered 858 health facilities, created 45 district IPC teams and a pool of 486 mentors to ensure continuity of the program

5,452 
health care workers
trained on IPC for
COVID-19 response



EVD Response

- Revised National EVD Preparedness and Action Plan
- EVD vaccine pharmacovigilance pocket guide developed for health workers in preparation for potential rollout of EVD vaccines



Improving IPC in Kiwoko Hospital

To support Central Uganda's Kiwoko Hospital in strengthening its IPC practices, MTaPS provided training, mentorship, supportive supervision, and CQI support and helped the hospital improve its management practices for IPC. Using its newly acquired knowledge and skills, the facility implemented a hand hygiene program and ensured handwashing facilities were in place at all entry and exit points. Now, as a matter of hospital policy, IPC is incorporated into the standing agenda of departmental meetings, and regular reporting and updates are submitted to the hospital administration to understand progress and challenges related to IPC program implementation.



USAID Mission Activity Manager for MTaPS, Dr. Sarah Paige (right), and the Hospital Director of Kiwoko Hospital, Dr. Serwadda Peter, practicing hand hygiene during the Mission visit to the hospital. Photo credit: MTaPS Uganda



The magnitude of AMR in the animal sector isn't clear but is known to be big, and MTaPS has provided us with the opportunity for the Ministry to add efforts to combat AMR . . . Thank you MTaPS for your support."

Dr. Juliet Sentumbwe, Assistant Commissioner, Animal Health

during the handover of AMR materials (EVML, guidelines, and AMR awareness messages)

at Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) offices, Entebbe, Uganda



PEER-REVIEWED PUBLICATIONS

- [Development and evaluation of a continuous quality improvement programme for antimicrobial stewardship in six hospitals in Uganda](#)
- [Gaps in data collection for sex and gender must be addressed in point prevalence surveys on antibiotic use](#)
- [Identifying and addressing challenges to antimicrobial use surveillance in low- and middle-income countries: experiences and lessons learned from Tanzania and Uganda](#)
- [Moving from assessments to implementation: promising practices for strengthening multisectoral antimicrobial resistance containment capacity](#)
- [Point Prevalence Survey of Antibiotic Use across 13 Hospitals in Uganda](#)
- [Strengthening multisectoral coordination on antimicrobial resistance: a landscape analysis of efforts in 11 countries](#)
- [What is the appropriate antimicrobial use surveillance tool at the health facility level for Uganda and other low- and middle-income countries?](#)

PATHWAY TO SUSTAINABILITY

- To promote ownership and sustainability, MTaPS focused on institutionalizing interventions through various government ministries, departments, and agencies and worked with other USAID-funded programs by providing catalytic technical assistance to cascade successful interventions and best practices.
- By engaging academic institutions and civil society organizations and through revising curriculum, MTaPS aimed to create a critical mass of human resources that would support long-term national AMR efforts.
- Transition planning was ingrained in the design of MTaPS activities to ensure that interventions are effectively transferred to local government stakeholders and other associated partners and institutions for sustainability.

LESSONS LEARNED

- Systematic capacity building for MSC requires a sectorwide approach. The private sector is currently not involved in the NAP-AMR or the One Health Platform (OHP), despite being a critical partner in AMR control efforts.
- Government stakeholders are supportive of improving global health security. The Uganda MOH acknowledges the need to invest in building resilient IPC and AMS programs in health facilities as part of efforts to improve patient safety and combat AMR.
- Implementation of AMS interventions can be undertaken in the absence of AMR surveillance laboratories. The country can implement AMS interventions that do not require laboratories while continuing to strengthen capacity for microbiology diagnostics at health facilities.

RECOMMENDATIONS

- The current governance structure for the OHP is not supported by policy and government funds. As a result, governance, decision making, financing, and activity implementation remain a challenge, with the OHP mainly funded/supported by implementing partners to perform its functions. There is a need for the GOU to establish a policy on GHSA to streamline implementation.
- Insufficient financing for AMR containment remains a barrier to completion of key IHR actions and advancement on the JEE capacities. Key benchmark actions beyond capacity level 4 require broader countrywide reach and financial commitments, which are not currently being met, limiting the reach and impact of interventions. Addressing this will require GOU commitment and increasing public financing and investments for health security.
- Human resource capacity strengthening requires a multipronged approach. Both in-service and pre-service capacity strengthening of the One Health workforce should be implemented in tandem.
- AMS and IPC implementation is not yet mandated in all health facilities, limiting the institutionalization of AMS and IPC interventions in Uganda. The establishment of a national AMS policy and program can help to institutionalize AMS implementation in all health facilities across Uganda.
- Public awareness, training, and education should be implemented in coordination with other strategic objectives of the Global Action Plan on Antimicrobial Resistance. The successful implementation of the Global Action Plan and NAP-AMR depends on an understanding of the burden of AMR across all sectors.



FEATURED RESOURCES

- [Establishing Centers of Excellence for Antimicrobial Stewardship in Uganda](#)
- [EVD Preparedness Response in Southwestern Uganda](#)
- [Increasing Government Financing and Resource Allocation for Family Planning Commodities and Supply Chain Operations in Uganda: A Political Economy Analysis](#)
- [Peer-to-Peer Learning Builds Health Worker Capacity for Infection Prevention and Control in Uganda](#)
- [Progressing Towards a Higher Joint External Evaluation Capacity Level for Uganda](#)
- [Uganda's Current Policies and Regulations on Antimicrobial Stewardship for Human Health, Animal Health, and Agriculture](#)

Essential
Veterinary
Medicines List for
Uganda



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2. Agaba, P., Tumukunde, J., Tindimwebwa, J.V.B. et al. Nosocomial bacterial infections and their antimicrobial susceptibility patterns among patients in Ugandan intensive care units: a cross sectional study. BMC Res Notes 10, 349 (2017). <https://doi.org/10.1186/s13104-017-2695-5>.
3. Uganda Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF); Essential Veterinary Medicines List for Uganda; Second Edition 2020. https://www.agriculture.go.ug/wp-content/uploads/2021/10/EVMLU_Uganda.2020.pdf.

RECOMMENDED CITATION

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